



DIRECTOR'S REPORT.

OCTOBER 1983

ARDRI



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ACCOMMODATION

PROJECT REPORTS

1983

FACILITIES

**AGRICULTURAL AND RURAL DEVELOPMENT
RESEARCH INSTITUTE
FORT HARE**

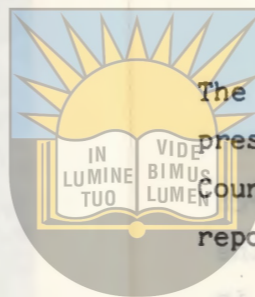
UNIVERSITY OF FORT HARE

AGRICULTURAL AND RURAL DEVELOPMENT RESEARCH INSTITUTE (ARDRI)

CONTROL COMMITTEE

DIRECTOR'S REPORT.

OCTOBER 1982 TO SEPTEMBER 1983.



The research activities of the Institute will be covered in the course of a presentation before the start of the formal business of the Advisory Council meeting. In view of this, it is proposed to limit the Director's report largely to administrative matters.

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ACCOMMODATION

In June 1983 the Institute moved to its new accommodation, in an unused house, renovated and re-equipped by the University. While the number of offices is still short of the total required, the move has made it possible to complete the installation of the Institute's graphic equipment which has greatly facilitated the production of documents. An extra wing of offices and a workshop are planned to blend in with the existing building, which will provide all the office accommodation required for the foreseeable future.

FACILITIES.

The introduction of word-processing facilities has made an inestimable difference to the Institute's document production. A small self-contained processor has been installed in the office for short reports and correspondence, while for major reports, the main-frame computer facility is used.

A well-equipped dark-room has been established, including a sophisticated process camera capable of producing photographic plates for printing masters, and enlarging or reducing maps and diagrams for reproduction. This, together with the word-processor and adequate draughting facilities, have made possible the creation of the ARDRI Document Centre, which will now produce all the Institute's documents and is available on commission to outside bodies.

The terminal for data input to the main-frame computer is about to be installed, which will make it possible for data processing to be carried out from the offices, rather than from the Faculty as is currently the case.

STAFF

With the Institute entering a consolidation phase in its research programme, the staff as it exists at present is basically the structure which will remain for the foreseeable future. It is possible that one more specialist research technician may be required and some reinforcement on the administrative side might be necessary in due course.

With the Micro-systems Survey, and Small-farm Systems research project assuming dominance in the Institute's research programmes, the opportunity has been created for the bulk of the scientific research to be conducted by post-graduate students registered at Fort Hare. Academic supervision will be provided by promoters while research and financial control will be exercised by ARDRI. In this way, efficient use of Institute staff and resources will be promoted, while increasing its contribution to the academic output of Fort Hare.

RESEARCH DIRECTION

The process which started last year, with the acceptance of the Research Recommendations document, is now basically complete. The emphasis and direction of research under the control of the Institute

systems which support the family and community. The two newly approved projects have incorporated three of the seven recommended research themes, and as these projects mature, more will be included.

ACKNOWLEDGEMENTS

Once again ARDRI'S indebtedness to a large number of benefactors is acknowledged with gratitude. The generous support of sponsors and donors make the existence of the Institute possible in financial terms, and the support of the University ensures that the responsibility for the finance is properly discharged. In particular assistance and guidance by the Rector and Registrars, and the Chairman and Control Committee are gratefully acknowledged.

Project leaders with lecturing commitments maintain a high level of interest in their projects, despite the fact that these constitute an addition to an already heavy load in teaching. The business of the Institute is virtually entirely dependent on their contribution which is highly valued.

Finally, the Director is indebted to the ARDRI staff, who are at all times a pleasure to work with, and who on occasion shoulder quite unreasonable burdens with equanimity.



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AGRICULTURAL & RURAL DEVELOPMENT RESEARCH INSTITUTE (ARDRI)

AMATOLA BASIN RURAL DEVELOPMENT PROJECT.

PROGRESS REPORT FOR PERIOD 1/9/82 - 31/8/83

INTRODUCTION

Two events had a significant influence on the Amatola Basin Project during the course of the year under review.

Firstly, the sponsors (GENCOR) formally decreased their sponsorship of the project. Secondly, Ciskei in general and the Amatola Basin in particular were devastated by one of the most serious droughts in human memory.

It goes without saying that the cumulative effect of these events has not left the project unaffected. This report will attempt, very briefly, to put matters into perspective.

1. THE "ENDING" OF GENCOR SPONSORSHIP

Towards the end of 1982 GENCOR informed ARDRI and others that "now that the survey stage of the project was complete it was not necessary to extend further financial assistance to the agricultural side". However, it would persist in financing social programs eg. sewing clubs, home and handicrafts, exploitation of springs etc.

This move obviously placed the "agriculture" side in a financial straight-jacket, whereas the other half of the project could still carry on, albeit with care. At the risk of splitting the project into halves, financial control eg. budgetting and accounting, has been seperated into two sub-accounts to cater for differential sponsorship.



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In the light of this development, funding of the agricultural side has, in the interim, been undertaken by ARDRI'S central fund while the budget for agricultural activities has been drastically pruned.

The shock of GENCOR'S unannounced move has, however, stimulated reconsideration of ARDRI'S approach to the Project and is forcing both research agency and inhabitant of the Basin to take another look at how things can be done more cheaply.

However, the feeling persists that another sponsor should be found to ensure continuity until the project has run its full course. Instead of five years, as originally anticipated, ten years would appear at this stage to be more realistic.

2. THE DROUGHT

No dryland field crops in the Basin yielded anything worth-while during the 1982/83 summer season. The story of conditions in Ciskei over the last nine months and more has been amny times told.

After failing to get a large-scale maize demonstration block going during the 1981/82 season, great care was taken to ensure that the demonstration would be successful during the following 1982/83 season. Up to a certain point things were looking very good but the lack of follow-up rains after early December 1982 put paid to even the meticulously established "maize block". Small crops of a few hundred kilograms were harvested here and there, while animals were kept alive on the dry stores.

Moves are afoot now to repeat the exercise during the ensuing 1983/84 season. However, climatic conditions appear less than favourable for maize production at the moment.

3. GENERAL PROGRESS AS PER OBJECTIVES.

It must be accepted, for purposes of this report, that the objectives set for the period February 1982 to February 1983 have been extended to February 1984 (se copy attached).

3.1. Maize

A block of lands about 50 ha in extent was fenced off and established to maize, using the latest methods. With the exception of a few farmers, no yield was achieved due to the drought.

3.2. Horticulture

3.2.1. The Nonoti community garden has been brought up to full commercial production and sales worth approx: R1500 have been achieved since April 1982, despite the drought.

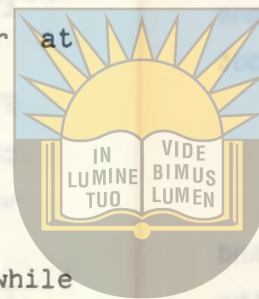
3.2.2. The Waterfall orchard has been established to a variety of fruit trees. No crop has as yet been produced - the trees are too young. Seven trees were lost due to the drought and stray animals. They have been replaced.

3.2.3. Eight family gardens have been demarcated and manured but could not be fully developed due to the drought.

3.2.4. Although seven would be commercial potato growers planted (dryland) seed potatoes, the drought affected yields very significantly. Nothing much came of this.

3.3. Winter crops

A block of 2,5 ha was "donated" for the establishment of winter wheat. However, drought conditions have prevented ploughing and other cultivation aimed at moisture detention. No wheat could be planted.



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3.4 Essential oils

Although the necessary land was obtained, the supply of Erioccephalée plants was insufficient and planting was ruled out until a sufficient quantity of plants could be supplied by Centoil.

3.5 Livestock

3.5.1 Cattle

No initiative has been taken in this regard although discussions have been held with engineers and other interested people about fattening of stock and a potential co-operative dairy scheme.

3.5.2 Sheep

Meetings of interested farmers have been addressed by sheep and wool and other experts at Mkobeni. The idea of improving the shearing and classing of the wool clip in the area has been well received. Five rands have been collected per household and a hous made available for shearing and wool classing until such time as a proper shed is built. The Department of Agriculture will make a sorting table and other facilities available and it is the intention to start with the 1983 clip.

3.6 Seed potatoes

The Department of Agriculture has maintained silence on this issue. The matter has therefore not been pursued in the light of other priorities.

HUMAN OBJECTIVES

4.1 Community Development Fund

A community development fund was established by the Project Management Committee (PMC) and, at present, stands at about R1 300. The cash is kept in a building society account and is administered by the PMC itself.

4.2 Improvement of human awareness of the project

No positive steps have been taken. However, a survey undertaken during August/September 1983 indicated that most people were aware of the project and were satisfied (Table 4.1, 4.2 and 4.3).

TABLE 4.1.

RESPONDENTS' AWARENESS OF ARDRI EXISTENCE, AMATOLA BASIN 1983

Response	Number	%
(N=128)		
Yes	119	93,0
No	9	7,0
Total	128	100,0

TABLE 4.2.

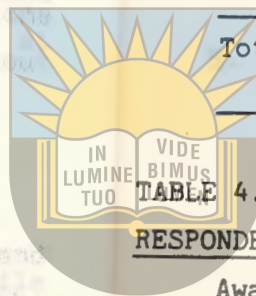
RESPONDENTS' AWARENESS OF THE AMATOLA BASIN PROJECT, 1983.

Awareness Category	Number	%
(N=128)		
Aware	116	90,0
Unaware	12	9,4
Total	128	100,0

TABLE 4.3.

RESPONDENTS' DEGREE OF SATISFACTION WITH THE AMATOLA BASIN PROJECT, 1983

Category	Number	%
(N=128)		
Satisfied	111	86,7
Dissatisfied	8	6,3
No comment	9	7,0
Total	128	100,0



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4.3 Structures and procedures

No additional "structures" have been set up. Instead, the two departmental extension officers have each been charged with a particular program. Mr Mrara has assumed responsibility for all programs to do with animal production, while Mr Vanda looks after the crop production aspects.

Each of these officers has drawn up a detailed program and is busy implementing.

5. PLANNING OBJECTIVES

5.1 Land use plan

The matter of land use planning has not progressed further than the potential map in terms of soils.

5.2 Agricultural development plan

An active fencing program is under way. A new dip has been constructed at Mkobeni.

Maintenance on the weir feeding the Sigidikazi Irrigation Scheme has occupied much time. The weir has a serious leak which drains the water to levels below the intake to the canal, especially when the stream flow decreases.

5.3 Infra-structural development plan

Steps have been taken to ensure a better telephone service (The matter was discussed personally with the Director-General concerned).

A three times a week bus service has been instituted.

The project headquarters has received attention when other duties have allowed. However, building of this training and headquarters facility is now being speeded up.



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4.2 Improvement of human awareness of the project
4.3 Structures and procedures
4.4 Community Development Fund
5.1 Land use plan
5.2 Agricultural development plan
5.3 Infra-structural development plan

5.4 Program plan

Six programs have been evolved but a lack of trained manpower and also of experience is curtailing progress.

6. GENERAL

Following GENCOR's partial withdrawal from the project, it was decided to draw up a complete report on the Amatola Basin Project since its inception in July 1978 up to and including March 1983.

This task has taken up a great deal of the project leader's time, time which could have been spent more profitably in the Basin itself. However, the report attempts to tell the story as completely as possible and will serve as a benchmark for later evaluation. Interim evaluation is being included in the present report.

The report will hopefully be available within the ensuing two months.



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OBJECTIVES FEBRUARY 1982 TO FEBRUARY 1983

1. GENERAL LONG-TERM OBJECTIVES

The objective of the Amatola Basin Project is to raise the level of agricultural productivity in the Basin, through the mechanism of a classical extension programme.

2. AGRICULTURAL OBJECTIVES

2.1 Maize

To consolidate up to 50 ha of individual lands to enable production to be based on mechanisation and proper technical inputs. The target yield increase is from the present 250 to 300 kg per ha to 1600 to 2000 kg per ha (approx. 650%). The physical potential of the area allows for yields of up to 3500 kg per ha.

2.2 Horticulture

1. To bring the Nonoti community vegetable garden (0,75 ha) up to full commercial production, using those vegetables which are locally acceptable.
2. To fully plant the Waterfall garden (0,6 ha) to selected citrus and peach cultivars. In the initial years the land will be intercropped with vegetables as well.
3. To bring up to full production seven family gardens for home use.
4. To establish up to 10 commercial potato growers, each with a minimum of 0,1 ha, funded on contract by the project. Target yield 1000 pockets (15 kg) per ha.

4.2 Agricultural Development Plan

To complete the physical plan, including fence alignment, roads, land reservation, human and stock water supplies, dips, dams and irrigation schemes.



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2.3 Winter crops 1983

1. Cattle

To establish a pilot improved pasture scheme of 5 ha in extent. This is required to test:-

1. Establishment and operating costs.
2. Method of use by cattle-owners.
3. Management requirements.
4. Yield and productivity.

2. Sheep

To initiate action to ensure that the 1983 fleece for pilot study group is shorn and sorted to commercial standards. This will require:-

1. Control of internal and external parasites, and diseases.
2. Handling facilities for dosing and other management requirements.
3. Shearing shed and sorting tables. To achieve these requirements in 1983 it is necessary that procedures be established and application made for the shed in 1982.

2.6 Seed potatoes - 1983

To achieve the technical and administrative clearances necessary to enable the planning and implementation of the seed-potato project on the Hogsback to take place in time for a crop in 1983.

3. HUMAN OBJECTIVES

3.1 Tribal or Community Development Fund

To achieve the establishment of a Community Development Fund administered by the Tribal Authority (TA) to enable the TA to be in an increasingly better position to finance development schemes and sub-projects in the area (Basin) under its administration. Such a fund will be administered by ARDRI through the PMC until the local authorities are able to handle it themselves.

3.2 Improvement of human awareness regarding the project

To create and implement a modus operandi whereby inhabitants of the Basin will gain a better understanding of the aims of the project and of the steps being planned and undertaken to accelerate their rate and improve the quality of development. To achieve greater involvement on the part of the local people in the project itself.

3.3 Structures & procedures

To set up and refine the social and institutional structures and procedures necessary to achieve the project objectives by means of the extension method.

4. PLANNING OBJECTIVES

4.1 Land-use plan

To complete the land-use plans, including the full range of crop and livestock options, as determined by varying climatic, edaphic and economic conditions.

4.2 Agricultural Development Plan

To complete the physical plan, including fence alignment, roads, land conservation, human and stock water supplies, dips, dams and irrigation schemes.



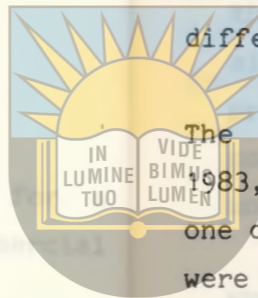
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4.3 Infrastructural development plan

To complete the plan for minimum infrastructural requirements, including telephones, postal services, local market places and project headquarters.

4.4 Programme Plan

To plan those time-bound programmes necessary for the achievement of the agricultural objectives laid out in Section 2.



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AN INVESTIGATION INTO THE VARIOUS FACTORS WHICH UNDERLIE THE PRESENT LOW EFFICIENCY OF CATTLE PRODUCTION IN KWAZULU.

PROGRESS REPORT.
(1/10/82 - 30/9/83)

After considerable delays beyond this Institute's control, the main survey was started in the Ogwini region of KwaZulu (Eshowe area) in October 1982. Fieldwork in this region was completed by the end of December, and the returned questionnaires have been coded and the data computerised, ready for further analysis.

A total of 252 response were surveyed at 25 dip tanks situated in six different bioclimatic zones in the Ogwini Region.

The main survey in the Mabelana region of KwaZulu was started in March 1983, and to-date completed questionnaires have been received from all but one of the diptank areas selected for survey. A total of 129 respondents were surveyed at 15 diptanks in four out of the six districts in this region. The selected tanks were situated in seven different bio-climatic zones. Unfortunately, because two of the districts in the region (Ingwavuma and Simlangestsha) were considered by the Ulundi office to be politically sensitive at the time of the survey, these were not included in the survey.

As an integral part of the "attitude" part of the investigation, recorded interviews were conducted with Chiefs, Induna's and stockowners in both the regions included in the survey. Government field staff were also interviewed. Further interviews with the Chief Minister; the Secretary of Agriculture and Forestry; the Director of Veterinary Services, and senior Government and private individuals are also planned for the near future.

The survey has so far revealed that many of Zulu farmers in the cane-growing areas of KwaZulu keep very few, if any, cattle on their holdings. Because of this finding, it has been decided that a sub-survey should be done of the cane-growers in the Felixton, Delville and Amatikulu areas of KwaZulu to establish to reasons why this should be so. Sixty growers in these three areas will be surveyed by means of questionnaires and personal interviews during September 1983.

It is anticipated that the final report on this project will be presented by the end of March 1984.

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CENTOIL PROJECT

The CENTOIL project is directed at the testing and evaluation of conventional essential oil crops, the development of new crops from local aromatic plants and the assessment of markets for the produce.

The severe drought experienced during the growing period severely limited the field research programme and resulted in the termination of practically all field experiments before completion. The potential impact of the project can be gauged by the fact that, despite the drought oils with a potential value of approximately R120 000 were produced during the period under review.

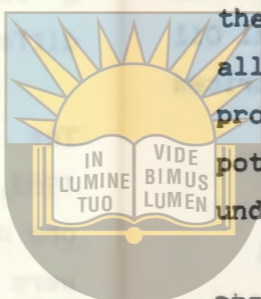
RESEARCH, DEVELOPMENT AND PRODUCTION.

Following experience gained during the processing of the 1982 Tagette crop, major modifications were made to the layout and design of the processing plant. The modifications have resulted in a considerably more efficient processing plant as is evidenced by the fact that the Tagette crop was processed considerably faster than during the previous year.

PEPPERMINT

As a result of the drought, all irrigation on this project was halted in January and the crop was harvested in a wilted condition and at a premature stage - hardly conditions conducive for the production of high yields of good quality oil.

Despite the drought conditions 140kgs of oil were produced and sold at a price equivalent to that of blended USA mint oil. According to chemical analyses the oil was not up to the standard required for the production of top confectionary lines.



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Lanyana clones is currently receiving attention and encouraging progress has been made. Lanyana holds potential promise as a crop with a degree of exclusivity for the eastern seaboard areas.

ERICHEPHALEE (Eriocephalee punctulatus)

During the past season significant progress has been made in the vegetative propagation of this plant and some 2000 rooted cuttings have been produced for planting in the field. In collaboration with the Ciskei Dept. of Agriculture and Forestry a second plot is currently being established in the Hogsback Forest Reserve. A number of enquiries about the oil have been received since its exposition at the Würzburg and Singapore Essential Oil Congresses. Indications are that it may find favour as a highly priced speciality oil.

OTHER CROPS

Research and limited field production are being continued with Pteronia, Tarragon and Lavender.

BUDGET

See appendix 1.

FINANCIAL REPORT - See appendix 2.

CONCLUSIONS

The strategy of using funds generated by Tagette to finance the development of other promising local oils appears to have succeeded and the project is currently financially solvent. Further meaningful continuation of the project will depend upon the final sale and receipt of payment for the 350 kgs of Tagette currently on hand. Certain companies have shown interest in the oil and the prospects of selling the entire crop at the projected price are apparently good.

During the coming year an extensive series of experiments directed at determining the factors influencing the quality of local mint oil are envisaged.

The researchers are cautiously optimistic that peppermint may have a role to play as a cash crop on certain Ciskei irrigation schemes. The compilation of growers bulletin on peppermint has been commenced.

TAGETTE

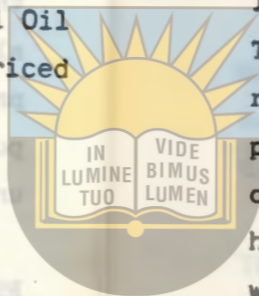
Initial indications were that the market would be well supplied with Tagette during 1983. However, urgent requests and "firm orders" were received in April from agents marketing in the USA and Europe and a production goal of 400kgs was set. Later because of the apparent strength of the market this was raised to 700kgs. Due to the severe drought little harvestable Tagette was available in the Ciskei during 1983 and the project was compelled to purchase material in the Transkei.

It would appear that Tagette from sources other than South Africa is entering the world market and that the quality and price of South African Tagette is being challenged. This is concluded from the fact that oil samples which were initially acclaimed as being of excellent quality are now being questioned on the basis of olfactory and chemical composition. A degree of optimism nevertheless prevails regarding the sale of the entire 1983 crop.

Although the demand for Tagette appears to show considerable fluctuation there nevertheless appears to be a greater degree of confidence in the long-term future of this product than there was a year ago.

LANYANA (Artemesia afra)

This plant occurs abundantly in the mountainous areas of Ciskei where it is the prime medicinal plant used by the tribespeople. Local experiments have shown that when it is planted as a conventional crop it grows vigorously and is capable of high oil yields per hectare. The market for Lanyana as a substitute for certain established oils and as a source of certain chemical compounds (thujone) appears to be relatively promising. The selection and propagation of high thujone



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ECOTOPE EVALUATION

Progress report for the year ending 31 October 1983.

1. Staff

Mr Lungelo Pepe was appointed to assist with the field work and data collection and has fulfilled his duties admirably well.

Mr C E Emms has resigned as of 31/9/83 to go and study overseas. He has managed the field work of the project very well and we are sorry to lose this capable field man. His replacement is being negotiated.

The other field staff have worked very well this year often putting in long hours at critical times and are to be congratulated on their efforts.

2. Summer crop experiments 1982/83

First planting

Twenty two sites were planted within two weeks on well prepared sites in November. Germination was good and sites were kept clean of weeds.

However, the severe drought in Ciskei, summer rainfall was 47% below expected normal rainfall, caused the crops to run out of water and give little or no grain yield (Appendix 1).

Second planting

Fifteen sites were planted into dry top soil. Expected rain never arrived and no harvestable yields were obtained.

1983/84

Preparations for planting 23 sites are well under way.



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3. Winter crop Experiments

1982 Winter Wheat

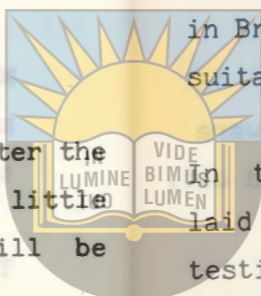
Results of these trials are attached (Appendix 2). Large differences exist between site means due to differences in soils and moisture. In general the spring wheats out-yielded the intermediate wheat. Of particular interest are the yields obtained from soils with a restricting layer, such as Estcourt and Sterkspruit which outyielded a Jozini where the climate was identical.

1983 Winter Wheat

Due to the drought planting could not be attempted. However, after the rain in July the Fort Hare sites were planted, however very little yield is expected because of the high temperatures which will be experienced by these late plantings.

4. Steering Committee Meeting

The minutes of the last steering committee meeting held in Zwelitsha are attached (Appendix 3).



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INTRODUCTION

The vacancy caused by Mr Adams' departure has proved to be difficult to fill from within South Africa. Contact has now been made with candidates in Britain with experience in forestry in Africa and it is possible that a suitable candidate may be available for the start of 1984.

In the meantime the programme of establishment of trial plots originally laid out has been proceeded with and the accumulation of both material for testing and literature continues. Firm proposals for the extended testing of *Leucaena* over the 1983/84 summer will shortly be available.

Main trials

During October and November 1982, as soon as a small quantity of rain had fallen, the trails at "Bucklands" in the Fish River Valley and "Veltevreden" near Queenstown were replanted.

A total of 13 species and 57 varieties of trees and shrubs were planted at each trial site, but despite hand watering on three occasions at each site, every plant died as a result of the drought.

Even though the coastal regions were somewhat drier than usual, the Kidds Beach trial flourished. Most impressive growth was recorded in *Leucaena Leucocephala*, some varieties reaching over two meters in a growing season.

Sampling indicates that best yields of browse and firewood were from K6. A fuller account on nutrient content etc., is the subject of a separate report.

Better than average growth was also achieved by Simonsia chinensis (Jojoba) which is considered the best example in South Africa by some authorities. Flowering has not been achieved elsewhere in less than 3 years, but occurred in just over 18 months at Kidds Beach. There is no obvious reason for this unusual growth of the Jojoba.

Another tree showing promise at Kidds Beach is Ceratonia siliqua (carob) which although slower growing than some species is looking well. Cajonus cajan the Pigeon pea is also worth mentioning as some of the later maturing varieties seem to be well suited to our coastal climate.

Nursery

8 more species were sown in the nursery during the year including 13 varieties of Eucalypts. Named varieties of Gleditsia triacanthos were received from America, which germinated well and have since been planted out.

Other trials

Five varieties of Amaranthus were sown from seed selected from last year's observation trials. A replicated yield trial was planted on Fort Hare farm with variety R125 hybridus yielding 227kg per hectare on virtually no rain.

A more full report on the Amaranthus is available.

Visits

Four visits away from Fort Hare were undertaken during the year, all of which have been separately reported on.

The first visit was to the Forest Dept. Seed Store in Pretoria where a most informative tour was arranged by Mr Herbst, the officer in charge.

Secondly, Mr Tragarkis was visited in Stellenbosch, specifically to learn about the growing and potential of Ceratonia siliqua. The opportunity was taken to visit Dr Patterson-Jones of U.C.T. who threw a somewhat morbid light on several promising lines such as Jojoba and various Euphorbia species (for latex extraction).

A third visit was to the University of Natal for a discussion and field trip with Mr Bransby who is engaged on research into Laucaena leucocephala. Amaranthus trials taking place at Pietermaritzburg were also discussed.

The Lesotho Woodlot Project was also visited where some very relevant information was gained, both about field practices and nursery management. The Lesotho Woodlot Project is operated on a much larger scale than had first been anticipated, with a large budget and staff.

PROGRESS REPORT OCTOBER 1967 TO SEPTEMBER 1968

The original project proposal stated that the bulk of project activity would take place in the second year of the project. This has certainly been the case.

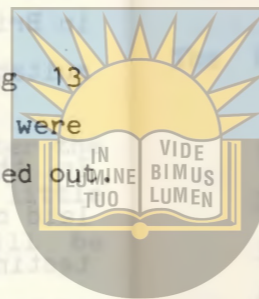
The various fields of work can be summarised under the following headings:

1. Nursery
2. Field Planting
3. Harvesting
4. Harvesting
5. Harvesting
6. Harvesting
7. Training
8. Fruit Production
9. Nut and Seed Industry
10. Subsistence Production
11. General
12. Budget

Resource Survey

It was recommended at the last meeting that a post graduate student be established in the Zoology department to carry out the technical evaluation of water quality.

In investigation it has been found that water quality data are available on all major catchment areas of Ciskei, and therefore an initial technical evaluation is unnecessary. It will however be necessary to monitor water quality in the catchment areas where water usage has included fish production, and up-date the existing data.



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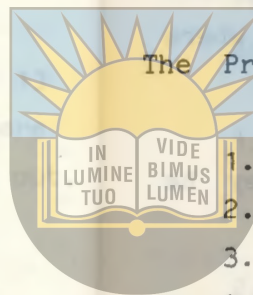
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CISKEI FISH FARMING PROJECT

PROGRESS REPORT OCTOBER 1982 TO SEPTEMBER 1983.

The original Project Proposal stated that the bulk of Project activity would take place in the second year of the Project. This has certainly been the case.

The Projects field of work can be summarized under the following headings:



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1. Resource Survey
 2. Socio-Economic Survey
 3. Market Survey
 4. Harvesting Enterprises
 5. Integrated Production Systems
 6. Seed Station
 7. Training
 8. Trout Production
 9. Net and Boat Industry
 10. Subsistence Production
 11. General
 12. Budget
1. Resource Survey

It was recommended at the last meeting that a post graduate student be established in the Zoology department to carry out the technical evaluation of water quality.

On investigation it has been found that Water Quality Data are available on all major catchment areas of Ciskei, and therefore an initial technical evaluation is unnecessary. It will however be necessary to monitor water quality in the catchment areas where water usage has included fish production, and up-date the existing data.

2. Socio-economic Survey.

It was reported to the Steering Committee at the last meeting that the reaction to "Fish" by Ciskeians was very pleasing.

During this last period, the fact that fish are acceptable, has become even more apparent i.e. for the greater part of this year netting exercises have taken place regularly on various dams in Ciskei, and these fish have always been sold within a short period- with a request for more. Mr Jordaan in his Market Survey has been distributing fish throughout areas of Ciskei, and has had numerous enquires as to where and when fish may be aquired.

It is recommended that the need for a Socio-economic Survey be excluded from the Project for the time-being since:

1. All fish presently available are sold without any problems, indicating that there is really acceptance of the product.
2. In view of the general shortage of food in Ciskei this is not surprising. It is likely that fish are not being used as a diet supplement but, are in fact the only ready available protein source at the moment.
3. Fish production is not in any case satisfying the demand of those Ciskeians who eat fish normally, therefore a survey should be delayed until production is approaching the present demand, to ascertain whether market expansion can be achieved.

3. Market Survey

The second part of the Market Survey was started in April and nettings took place on a weekly basis to cover the fish requirements of the survey.

660kg of fish were netted and used during the Survey.

A full report will be submitted by 30th September 1983.

4. Harvesting Enterprises -Laing Dam.

Progress in this aspect of the project has been slow, suffering numerous administrative delays at Government level.

During visits to Laing Dam with Mr Markham, several "fishermen" were approached, in an effort to gauge their attitude towards such a venture. Only one person was interested, and he subsequently failed to turn up.

Further delays occurred because of the clash between the Conservation and utilization ethics, although these have now been finalized:

1. Nature Conservation officials will monitor and control fish species, fish size and netting procedures.
2. ARDRI and Department of Agriculture will monitor catch statistics and advise as to the size of the operation and general running of the enterprise.

A fisherman has now been found and approved by Ciskei Government, and a Cabinet memorandum has been sent to Ciskei Government for approval of the project. As soon as this is forthcoming the enterprise will get underway.

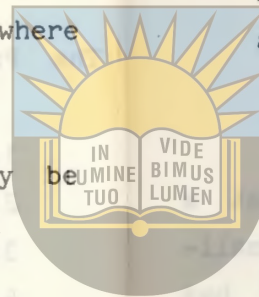
5. Intergrated Production System.

5.1. Tyefu Integrated Unit.

Once again progress has been rather slow, but is picking up.

Finance for the unit was held by Tyefu Irrigation Scheme, and at the end of the last financial year was inadvertently handed back to Ciskei Government. This curtailed our expenditure for certain capital items (mainly the house) causing a snowball effect:-

1. the ponds were not stocked with fish because the necessary livestock to fertilize the ponds was not on site.



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2. livestock could not be kept as the tenant was unable to stay on the plot, and theft of chickens, ducks and pigs would be uncontrollable.

Money has now been forthcoming and the unit is slowly moving into full production.

The first vegetable crop (cabbages) is at present being marketed, and carp are being caught in the Fish river and relocated to the ponds.

5.2 Fort Hare Small-Farm Systems Research Unit.

It was mentioned at the last Steering Committee meeting that a second intergrated unit be established, as part of the new Small-farm Systems Research facility at Fort Hare. This project has now been approved therefore a start should be made on the fish component of this Unit as soon as possible.

No detailed plan has as yet been drawn up, although it is envisaged that it would follow similar lines to the Tyefu unit, but on a smaller scale - more appropriate to the rural context.

The possibility of establishing a unit on the President's farm was also mentioned at the last meeting. The farm manager has been approached, but as yet has not confirmed any details.

6. Seed Station- Gilbralter Rock.

The plan for the Seed Station has been completed and was submitted to Ciskei Government for onward transmission to the RSA Government for approval, in February 1983.

It was learnt at the time of submission that a delay of up to 18 months could be expected before approval would be forthcoming. Dr Bridgeman of the President's office offered the use of the Rural Development programme to make a start on the Hatchery.

The Development Programme uses hand labour for dam construction, and with this labour work started in the middle of July on the breeding ponds, which are progressing rapidly.

As soon as the finance becomes available work will start on the other items. Breeding will however take place during the 83/84 summer.

7. Training

It has been decided by the Fort Hare Agriculture Faculty Board that Fish Production would be covered as part of the general Animal Science course in the same way that beef, sheep, poultry, etc. are covered. This will amount to 1 1/2 lecture periods per week.

Prof Tapson will cover the academic lecture periods and normal Project work will be used for practicals.

At the same meeting it was decided that a short course would be arranged on a yearly basis for interested Extension Officers and Agricultural officers.

Training of Fishermen and Fish farmers will continue as units and new ventures are established.

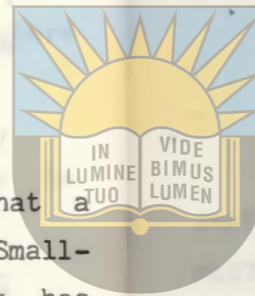
8. Trout Production

As yet Ciskei Government have not approved Mr Markham's motivation for a trout production unit at Waterdown dam. This item will therefore remain static until such time as Government approval is forthcoming. It is however a less critical aspect of the Project and would also necessitate the involvement of a private entrepreneur.

9. Net and Boat Industry

9.1. Net Industry.

Progress has been good in this regard and nets are at present being mounted.



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It has been decided to split the operation into two phases, which are conducted in separate villages i.e. one village is responsible for the manufacturing of top and bottom ropes, and the second village for mounting the net blanks onto the ropes.

9.2. Boat Industry.

There has been little urgency to pursue this matter during the first half of the year as the Laing dam fisherman has not been established. It will however receive consideration during the latter part of the current year.

10. Subsistence Production

This aspect forms a very important part of the Project, in an effort to provide family units with the opportunity to start "limited" fish production. One subsistence participator has been found, and a small unit is in operation.

11. General.

Although the Project is, and will remain subject to numerous delays, mostly of a minor nature, the year has been reasonably successful. It is particularly encouraging to report that, despite one of the worst periods of drought to beset the Ciskei, there is still enough water for aquaculture to make a substantial impact on the rural and commercial life of the State.

SOCIO-ECONOMIC STUDIES IN RURAL COMMUNITIES.

PROGRESS REPORT

(1/10/82 - 30/9/83)

An on-going study of the agro-socio-economic factors effecting rural families in Ciskei, Transkei and KwaZulu was approved by the ARDRI ~~Advisory~~ ^{Control} Committee at a meeting held on the 28th September, 1982.

(a) Ciskei Project

Mr G J Steyn of the Dept. of Agricultural Extension in the Faculty of Agriculture, University of Fort Hare has taken on the Ciskei part of this study with a view to using some of the data collected as a basis for a doctoral thesis in the future.

An agreement has been reached with the Ciskei Ministries of Agriculture and Forestry, and of Rural Development, whereby they will meet the costs of field recorders.

Two communities have been identified in the Peddie district for study. The Nyaniso community is located some six kilometers south of Peddie town and falls under the AMAHLUBI Tribal Authority. The area has previously been planned as a Betterment Area. Being close to town and bordering the main King Williamstown / Grahamstown tarred road many of the residents (particularly males) work in one or other of the main towns and can be considered migrant workers, or commuters, not entirely dependent on agriculture for a livelihood. The other community selected for study is that living around Lujiko in the JAJI Tribal Authority. This area has not been planned and is far from a town of any size. Locally, the people are known as the "Red Blanket People", signifying a fairly strict adherence to traditional ways and customs.

A most gratifying response and assistance has been received from Chiefs MHLAULI and NJOKWENI and from the Principal Agricultural Officer at Peddie, Mr S L MHLEKWA. Recorders have been appointed and a start has been made with the collection of demographic data and mapping.



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(b) Transkei Project

Mr J Ellis-Jones, Development Manager, TRACOR is to undertake the Transkei part of the study. Mr Ellis-Jones will also be using some of the data towards a doctorate thesis to be submitted to the Department of Extension, University of Fort Hare.

Mr Ellis-Jones is presently selecting the communities he intends studying.

(c) KwaZulu Project.

This part of the main on-going study will be undertaken by Mr Elston le Roux, Regional Director, KwaZulu Dept. of Agriculture and Forestry. Mr le Roux will also be using the study for degree purposes.

Three communities in KwaZulu have been tentatively selected but not yet confirmed.

General

It is pleasing to report the satisfactory progress made with this project in a relatively short time.