

THE NORTHERN TERRITORY OF AUSTRALIA

Copy No.

CONFIDENTIAL
CABINET DECISION

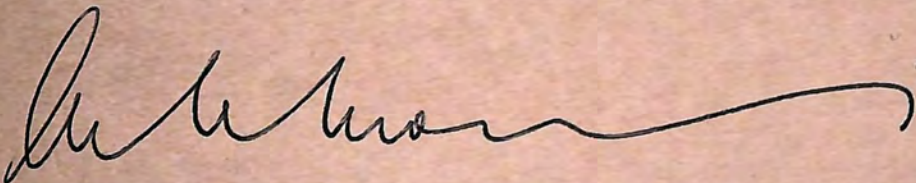
No.....5516.....

Submission No.: 4746

Title: DEVELOPMENT OF A KENAF BASED PULP AND/OR PAPER
INDUSTRY

Cabinet -

- (a) endorsed the principle of substantial private enterprise involvement in the development of a kenaf industry as soon as possible;
- (b) endorsed the objectives, current progress and the plans for 1988/89 for work on crop agronomy, computerised crop modelling, pulping and paper making tests, market analyses, locational analysis and a study of possible commercial structures;
- (c) noted the estimated costs for 1988/89; and
- (d) noted that the proposals will require a further review and planning early in 1989, possibly in conjunction with commercial participants.



A. G. MORRIS
Secretary to Cabinet.

15 March 1988

CONFIDENTIAL

THE NORTHERN TERRITORY OF AUSTRALIA

Copy No: 1

CONFIDENTIAL

4746

FOR CABINET

SUBMISSION No:

Title:	DEVELOPMENT OF A KENAF BASED PULP AND/OR PAPER INDUSTRY
Minister	HON. MARSHALL PERRON, MINISTER FOR INDUSTRIES AND DEVELOPMENT
Purpose:	TO SEEK CABINET'S ENDORSEMENT OF CURRENT AND PLANNED WORK IN THE DEVELOPMENT OF THE PROJECT UNTIL EARLY 1989 AND TO INFORM CABINET OF THE ESTIMATED COSTS.
Relation to existing policy:	EXISTING POLICY ENCOURAGES AGRICULTURAL DEVELOPMENT WITH SUBSEQUENT PROCESSING IN APPROPRIATE INDUSTRIAL TECHNOLOGIES.
Timing/ legislative priority:	CABINET ENDORSEMENT IS SOUGHT TO ALLOW THE DEVELOPMENT TO PROCEED.
Announcement of decision, tabling, etc:	NO ANNOUNCEMENT AT THIS STAGE.
Action required before announcement:	NOT APPLICABLE.
Staffing implications, numbers and costs, etc:	REDEPLOYMENT OF EXISTING STAFF PLUS ENGAGEMENT OF CONSULTANTS IN VARIOUS SPECIALIST AREAS.
Total cost:	IN 1988-89 ESTIMATED COSTS TOTAL \$965,000. LATER STAGES WILL REQUIRE SUBSTANTIAL ADDITIONAL GOVERNMENT AND/OR INVESTOR RESOURCES.

CONFIDENTIAL

CONFIDENTIAL

Department/Authority..... CO-ORDINATION COMMITTEE.....

COMMENT ON CABINET SUBMISSION No.

TITLE: DEVELOPMENT OF KENAF BASED PULP AND/OR PAPER INDUSTRY.....

COMMENTS:

The Committee supports the Submission.



SIGNED: A.G. MORRIS

DESIGNATION: Chairman

DATE: 7.3.88

CONFIDENTIAL

CONFIDENTIAL

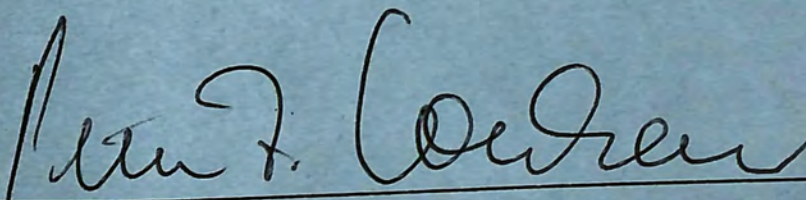
Department/Authority LAW

COMMENT ON CABINET SUBMISSION No.

TITLE: DEVELOPMENT OF A KENAF BASED PULP AND/OR PAPER INDUSTRY

COMMENTS:

There are no legal or constitutional barriers to the proposal.



SIGNED: C.E. CROFT

DESIGNATION: SECRETARY, DEPARTMENT OF LAW

DATE: 2 FEBRUARY 1988

CONFIDENTIAL

CONFIDENTIAL

Department/Authority.....NORTHERN TERRITORY TREASURY

COMMENT ON CABINET SUBMISSION No.

TITLE:DEVELOPMENT OF A KENAF BASED PULP AND/OR
.....PAPER INDUSTRY

COMMENTS:

Co-ordination Committee recommended some modification to the
Submission's recommendations to Cabinet. Treasury would
support the recommendations modified in that way.



SIGNED: N R CONN

DESIGNATION: UNDER TREASURER

DATE: 16 FEBRUARY 1988

CONFIDENTIAL

CONFIDENTIAL

Department/~~Agency~~ OF THE CHIEF MINISTER

COMMENT ON CABINET SUBMISSION No.

TITLE: DEVELOPMENT OF A KENAF BASED PULP AND/OR PAPER
..... INDUSTRY
.....

COMMENTS:

The project will require a capital investment of circa \$300m.

At the present time there is no sign that any private investor intends to invest any money in a kenaf project in the Northern Territory.

In the circumstances to plan around a pulp/paper mill commencing operations by mid June 1992 is totally unjustifiable.

Until there is some real prospect of attracting commercial investors, expenditure on this project should come from within the Department's normal budgetary allocation.

The preferred Option (b) appears to recommend that the project should be funded from within existing resources and this would be supported. However, this is not reflected in the recommendations which seeks endorsement of expenditures of \$965 000 in 1988/89.

Expenditures in 1988/89 should not far exceed the estimated expenditure of \$178 000 in 1987/88.

SIGNED: L RICHARDSON 

DESIGNATION: DEPUTY SECRETARY

DATE: 4-2-88

CONFIDENTIAL

CONFIDENTIAL

- 1-

THE ISSUE

1. To seek Cabinet's endorsement of the developmental plans and costs for the kenaf program which will be co-ordinated by the Kenaf Taskforce within the Department of Industries and Development.

BACKGROUND

2. At its meeting of 11 August 1987 Cabinet noted an information paper on the possible development of a kenaf based pulp and/or paper industry and requested more specific details on proposals for development. This submission presents that additional information and features specific proposals for work until early 1989 (see Attachment 1). Planning for developmental work thereafter should be done in conjunction with Australian and/or overseas investors in our kenaf program.
3. Two basic premises underlie the plans for development. The first is that a pulp/paper mill should commence operations by mid 1992. To meet the 1992 target, a decision to build a mill will be required in mid 1989 and, after appropriate design work, construction should commence in mid 1990. These are ambitious targets and although commercial investors may not necessarily adhere to them, the plans for the Kenaf Taskforce are oriented towards a 1992 start-up.
4. The second premise is that commercial investors must be attracted to the kenaf program as soon as possible. Potential investors may be entrepreneurs who are seeking an attractive investment opportunity or they may be existing operators in the pulp and/or paper industries in Australia or overseas. A consortium of producers of kenaf, pulp millers, paper manufacturers and final marketers of paper products could offer clear advantages over 'single interest' investors. Furthermore, investor support for

CONFIDENTIAL

CONFIDENTIAL

- 2-

- investigating the potential of the industry at an early stage would reduce the costs to Government
5. Accordingly, the Taskforce has as its objective:
- "To develop and refine continuously an attractive proposal for commercial investment in a pulp/paper industry in the Northern Territory based on locally grown kenaf and perhaps, other non-woody fibres."

CONSIDERATION OF THE ISSUES

6. Establishment of a successful pulp/paper industry in the Northern Territory will require:
- (a) development and implementation of a total cropping system based on kenaf and possibly, other non-woody fibre crops;
 - (b) market analyses and monitoring to identify medium-long term market demand for pulps and papers in Australia and overseas;
 - (c) adoption and/or development of pulping and paper-making technologies appropriate for raw material grown in the Northern Territory and related to identified market demands for pulps and papers;
 - (d) optimal location of a mill in relation to consistent supplies of fibre crops, energy sources, water and the provision of essential infrastructure such as transport and port facilities.
7. These characteristics comprise the four main foci for the Kenaf Taskforce and the attached flow chart shows the complex interrelationships and timing between these various aspects of current and planned work (see Attachment 1).
8. A small, first-phase analysis has been commissioned to ascertain market size, specifications, locations, prices, trends and cycles for pulps and papers in Australia in order to identify markets for our potential products. This study will also provide information on current interrelationships between suppliers of

CONFIDENTIAL

CONFIDENTIAL

- 3-

fibre, pulp and paper manufacturers and final users as a guide to possible investors in our industry. This analysis should be completed by March 1988 (Estimated cost 1987-88 \$5,000). Thereafter, market information will be monitored and upgraded by members of Taskforce and by specially commissioned studies, as required (Estimated Cost 1988-89 \$30,000. See Attachment 2).

9. From April to December 1988 the CSIRO Division of Chemical and Wood Technology will investigate various new pulping technologies using kenaf grown in the Northern Territory. The market analysis will provide a guide to other grades of pulps and papers for which technological studies will be required (Estimated Costs 1987-88 \$25,000, 1988-89 \$50,000. See Attachment 2).
10. In addition, it is highly desirable that kenaf and other annual fibre crops grown in the Northern Territory should be tested with existing commercial pulping technology. Such tests would be able to provide valuable information on the chemical and physical acceptability of Northern Territory fibre crops for chemical pulping and could provide commercial samples of pulps for promoting the potential of our kenaf industry. This work should be completed by the end of 1988 to complement the CSIRO studies of new ways of blending pulps (Estimated Cost 1988-89 \$200,000. See Attachment 2).
11. Trial areas of kenaf have been established at Berrimah Research Farm, Douglas Daly Research Farm and the CSIRO Katherine Research Station and a total of 2ha (approximately) has been sown at two sites on Tipperary Station. At this early stage the kenaf is doing well, although it has revealed an extreme sensitivity to weedicides which will require further close study. In 1987-88 costs, including staff salaries, are

CONFIDENTIAL

CONFIDENTIAL

- 4-

being drawn from Departmental resources and total \$55,000. Estimated costs for 1988-89, for salaries, operational and capital items are \$360,000.

12. Scientists from the CSIRO Division of Tropical Crops and Pastures, in conjunction with Departmental agronomists, will use data from these trials to develop and validate a computerised crop production model for kenaf. This will allow projections to be made about potential kenaf yields under various growing and seasonal conditions and will assist in the clear identification of additional research required in future seasons. It will also facilitate early analyses of the potential economic viability of growing kenaf. (Estimated cost crop production model 1987-88 \$33,000, 1988-89 \$47,000. Estimated cost economic analysis 1988-89 \$5,000. See Attachment 2). CSIRO are providing other advice on kenaf through Mr I Wood. (Cost in 1987-88 \$10,200, estimated cost 1988-89 \$2,000).
13. Results of the 1987-88 agronomic trials will give an early indication of potential growing areas for kenaf. From this basis a preliminary locational analysis will be undertaken to investigate site options for a pulp/paper mill in terms of transport, power, water requirements and potential environmental issues. Consultants will draw on information and data from other Northern Territory Departments for this analysis. (Estimated Cost 1988-89, \$100,000. See Attachment 2).
14. Hence, by early 1989 we will have available:
 - (a) an early version of the computerised crop model;
 - (b) experience in growing kenaf for fibre, albeit only on a small scale of a few hectares;

CONFIDENTIAL

CONFIDENTIAL

- 5-

- (c) the results of pulping/paper making tests on kenaf grown in the Northern Territory;
 - (d) contemporary marketing information and an initial locational analysis of potential mill sites.
15. This will provide a basis to commission a study for a commercial corporate structure to indicate legal and financial structures, potential private sector joint venturers, staff requirements and a timetable for further development. This will help in the preparation and targeting of a proposal for investment in a Northern Territory pulp/paper industry (Estimated cost 1988-89 \$50,000. See Attachment 2).
16. After private investors have been attracted to the project then future work will be planned in conjunction with them. However, a clear need will be to continue investigations into the agronomy of kenaf (including the testing of other annual fibre crops) and the development of a cropping system with kenaf as the principal crop. This work will be essential, irrespective of the final pulp/paper products and will require considerable additional resources, including staff. Until private investors assume major responsibility, management costs of the Taskforce (including salaries, travel, research, preparation of an investment portfolio, reports) will be \$50,000 in 1987-88 and are estimated at \$121,000 for 1988-89.

OPTIONS

17. The options now available are:
- (a) To abandon the kenaf program;
 - (b) To continue all studies through a combination of consultants and existing resources within the Department, at a cost to existing projects (identified by Plant Industry Division as, mainly, soybeans and peanuts);

CONFIDENTIAL

CONFIDENTIAL

- 6-

- (c) To allow a modest increase in Department of Industries and Development staff, consistent with maintaining existing research and extension projects together with undertaking the increased work on kenaf;
- (d) To use consultants throughout.

Option (b) is preferred because it is the most cost effective way of developing information about the potential of a kenaf based pulp/paper industry.

18. The options on the timing of the project are:

- (a) Continue with 1992 as the target for commencement of mill operations.
- (b) Extend this target until later in the 1990's.

Option (a) is the preferred option. Although it involves higher costs in each of the years until 1992, it provides a sharper focus for the project and accelerates the potential benefits to the Northern Territory.

THE PUBLIC IMPACT OF THE RECOMMENDATIONS

19. The general public's response is expected to be favourable, especially as kenaf is an alternative to forests as a source of fibre. Environmental issues will need to be examined further, especially for the final location of the mill and for the cropping areas.

FINANCIAL CONSIDERATIONS

20. Expenditure on the kenaf developmental work during 1987-88 will total \$178,000 drawn from existing resources. The estimated cost for 1988-89 is \$965,000 which will be drawn from within the Department.

EMPLOYMENT AND STAFF CONSIDERATIONS

21. In 1987-88 and 1988-89 consultants and specialists will be hired to conduct specific studies, subject to the appropriate authorisations. For 1988-89 the crop agronomy investigations will be carried out by diversion

CONFIDENTIAL

CONFIDENTIAL

- 7-

of existing staff from technological work on grain legumes (soybeans and peanuts) and from associated extension services. Thereafter, additional inputs will be required for technical, demonstration and extension work in the build up to full commercial operations. The staff component may be employed on a permanent or contractual basis within the Department or consultants may be engaged.

CO-ORDINATION AND CONSULTATION

22. The Kenaf Taskforce in the Department of Industries and Development is co-ordinating the program. Officers of the Interdepartmental Committee (Industries and Development, Mines and Energy, Transport and Works, Chief Minister, Lands and Housing, Treasury) and representatives of the Darwin Port Authority, The Power and Water Authority and CCNT are kept informed of progress. They will have a greater input into development from 1988 onwards as we progress to the stages of feasibility studies. Departmental comments on this submission are attached. This submission has been considered by the Co-ordination Committee.

TIMING

23. The time-frame is mentioned earlier in the submission and is detailed in Attachment 1.

RECOMMENDATIONS

24. It is recommended that Cabinet:

- (a) endorse the principle of substantial private enterprise involvement in the development of a kenaf industry as soon as possible
- (b) endorse the objectives, current progress and the plans for 1988-89 for work on crop agronomy, computerised crop modelling, pulping and paper making tests, market analyses, locational analysis and a study of possible commercial structures;
- (c) note the estimated costs for 1988-89;

CONFIDENTIAL

CONFIDENTIAL

- 8-

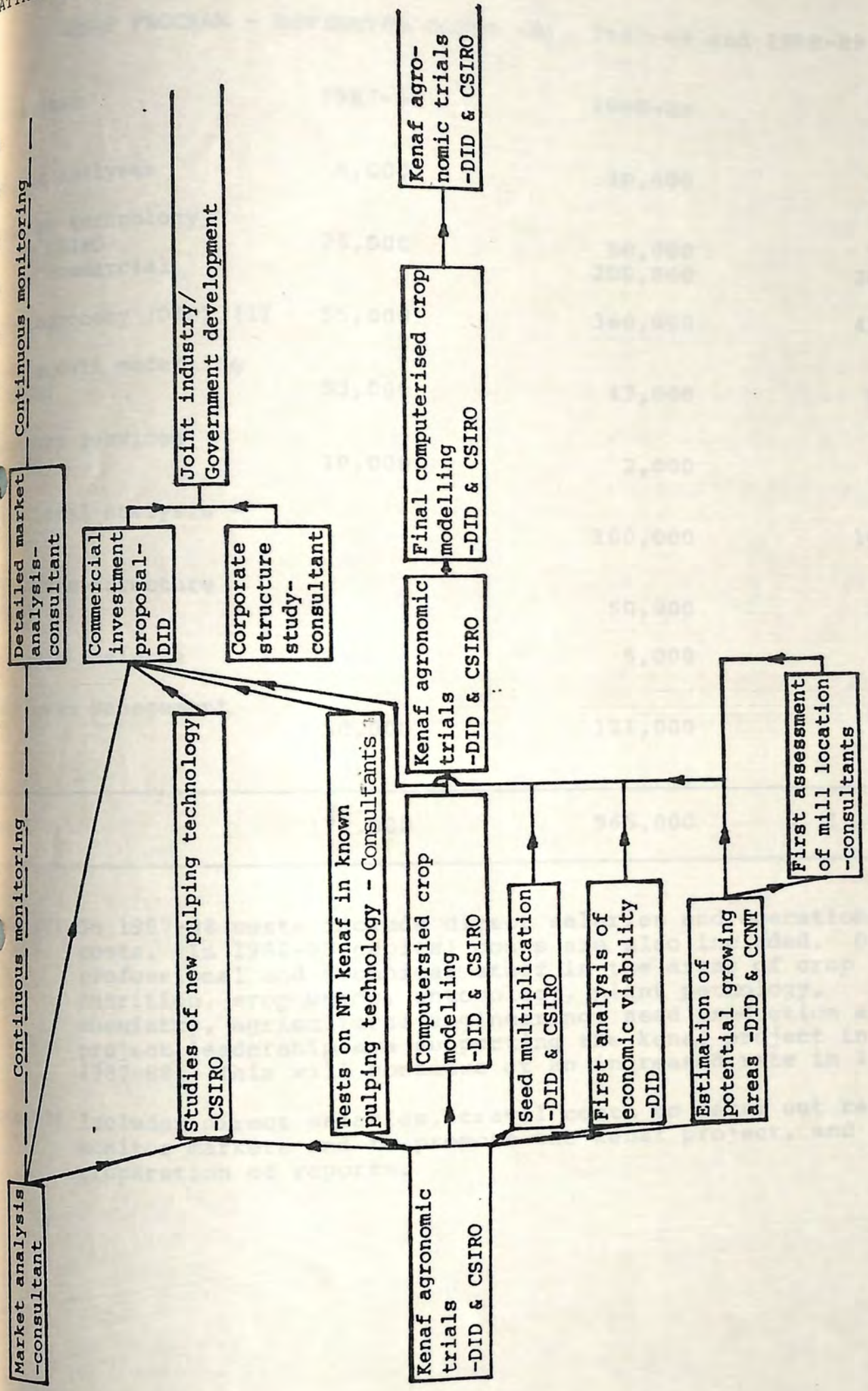
- (d) note that the proposals will require a further review and planning early in 1989, possibly in conjunction with commercial participants.

DATE 25.12.88

.....
MARSHALL PERRON

ATTACHMENT 1

1987 N D J J F F M A M J J A S O N D | 1988 J J A M J J F M A M J J A S O N D | 1989 J J A M J J A S O N D



1987 N D J J F F M A M J J A S O N D | 1988 J J A M J J A S O N D | 1989 J J A M J J A S O N D

ATTACHMENT 2

KENAF PROGRAM - ESTIMATED COSTS (\$), 1987-88 and 1988-89

Cost Item	1987-88	1988-89	Total
Market analyses	5,000	30,000	35,000
Pulping technology			
- CSIRO	25,000	50,000	75,000
- commercial		200,000	200,000
Crop agronomy (DID) (1)	55,000	360,000	415,000
Crop growth modelling (CSIRO)	33,000	47,000	80,000
Advisory services (CSIRO)	10,000	2,000	12,000
Locational analysis - mill		100,000	100,000
Corporate structure study		50,000	50,000
Economic analysis		5,000	5,000
Taskforce management (2)	50,000	121,000	171,000
Total	178,000	965,000	1,143,000

Note (1) In 1987-88 costs include direct salaries and operational costs. In 1988-89 capital costs are also included. Other professional and technical staff in the areas of crop nutrition, crop weeds, entomology, plant pathology, chemistry, agricultural engineering, seed production and project leadership are supporting the kenaf project in 1987-88. This will continue at an increased rate in 1988-89.

Note (2) Includes direct salaries, travel costs to carry out research, monitor markets and to promote the kenaf project, and the preparation of reports.