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منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Organización de las Naciones Unidas para la Agricultura y la Alimentación

COMMITTEE ON COMMODITY PROBLEMS

JOINT MEETING OF THE THIRTY-THIRD SESSION OF THE INTERGOVERNMENTAL GROUP ON HARD FIBRES AND THE THIRTY-FIFTH SESSION OF THE INTERGOVERNMENTAL GROUP ON JUTE, KENAF AND ALLIED FIBRES

Rome, 14 – 17 December 2004

COMMODITY DEVELOPMENT PROJECTS FINANCED BY THE COMMON FUND FOR COMMODITIES

I. INTRODUCTION

1. The Intergovernmental Group on Hard Fibres is a designated International Commodity Body (ICB) under the rules of the Common Fund for Commodities (CFC). In this role, the Group is responsible for sponsoring Hard Fibres projects for funding by the CFC and for supervising and reporting on the progress of projects once implementation starts. In fulfilling its mandate, the Group works with different organizations/associations to obtain CFC's assistance for development activities.

2. This document provides an update on progress made in the formulation and implementation of projects sponsored by the Group. It includes information available to the Secretariat at the time of its preparation. Additional information that becomes available will be provided to the Joint Meeting.

3. Since the Joint Meeting in 2003, three projects (one major and two *fast-track*) have been completed, three projects are currently being implemented (two of them have been almost completed), two projects have been approved by the CFC but implementation is yet to start and two new proposals have been received. For projects under implementation, the Secretariat has continued to supervise, on behalf of the Group, project execution by the various implementing agencies. For the new proposals, the Secretariat continues to work with the institutions that submitted the proposals in order to finalise the project documents. It is hoped that representatives from those institutions will be able to provide additional information to the Session to enable it to reach a more informed decision.

4. In view of the above considerations and based on the information provided on individual projects, the Group is invited to make comments and/or recommendations on any issues raised therein. In particular, the Group may wish to:

a) review and examine the achievements of completed projects;
b) assess progress of projects under implementation;
c) endorse and prioritize the new project proposals; and
d) identify new focus areas for future projects.

II. PROJECTS UNDER IMPLEMENTATION

A. PRODUCT AND MARKET DEVELOPMENT OF SISAL AND HENEQUEN PRODUCTS

5. This project is being executed by the United Nations Industrial Development Organisation (UNIDO) and the main objectives are to (i) establish the techno-economic feasibility of using sisal fibre in various grades of paper; (ii) develop new varieties of sisal that will be suitable for various end-uses; (iii) develop processes for commercial valorization of sisal wastes; (iv) establish market outlets for the new products and evolve strategies for penetrating such markets; and (v) disseminate widely the technology and market information from the project, and promote commercial adoption of the new technologies.

6. Project activities commenced early-1998 but the project was subsequently extended by a total of about three years and is now to terminate at the end of 2004.

7. Activities in the past year have included:

a) In the United Republic of Tanzania:

- Continuing trials testing plant density, harvesting time, suitable varieties for pulp production and fertiliser applications and particularly trials on alternative production systems, including high-density planting and whole-of-plant harvesting;
- Promotion of smallholder production;
- Experimentation to develop procedures and practices for meristematic tissue culture, and establishment of nurseries;
- A machine to recover flume tow has been designed and fabricated and tested;
- Research on fibre extraction has continued, with the equipment designed, constructed and tested in Tanzania, and with pulp testing in Europe.

b) In Kenya:

- Variety trials have continued, studying growth characteristics and responses to diseases, pests and climatic factors. Data on several varieties were analysed;
- Meristematic tissue culture trials have continued, involving mass multiplication in the laboratory, establishment of field nurseries, and laboratory experimentation.

8. A publication (SISAL: Past Research Results and Present Production Practices in East Africa, CFC Technical Paper No 8) was produced in 2001. A workshop to disseminate the results of the project was scheduled to be held in the United Republic of Tanzania in November 2004. Delegates to the Joint Meeting will be informed of the outcome of the dissemination workshop. Project activities are scheduled to be completed by the end of 2004 and a project completion report, detailing all the results, will be made available to interested parties upon submission by the PEA and approval by the CFC and the SB.

B. CLEANER INTEGRAL UTILISATION OF SISAL WASTE FOR BIOGAS AND BIO-FERTILISERS

9. This project was originally intended to be part of another sisal project (Product and Market Development of Sisal and Henequen Products) but was later approved as a separate grant-funded project. The objective is to establish the technical and economic viability of the production of gas and fertiliser from sisal waste. Activities include the construction of a pilot demonstration facility to produce biogas, which will be used to produce electricity, and the formulation of a national strategy for sound and environmentally-friendly utilisation of sisal gas for energy production. Utilisation of waste from bio-gas for the production of fertiliser is to be studied. This three-year project is being executed by UNIDO and located in the United Republic of Tanzania; implementation started in the second half of 2004.

C. COIR-BASED BUILDING AND PACKAGING MATERIAL

10. This project is being executed by Institute ATO DLO in the Netherlands and its objective is to demonstrate the potential of the application of a specific technology for the production of high quality fibreboards, by making use of the high content of lignin in coir fibre. The first phase of the project, laboratory-scale work in the Netherlands, was completed early in the year 2002, in which a simple process was used to produce a board successfully from coconut husk, and its mechanical properties have been tested.

11. The second phase of the project involves producing boards on a larger pilot scale in the Philippines. As activities move away from the laboratory, factors such as the effect of humidity and climate and of husk storage time are being investigated, together with the effect of prolonged soaking on the strength of the board. Activities in 2004 are directed towards piloting a small but commercial-type continuous production process and the project has been extended to the end of March 2005 to allow completion of this phase.

III. PROJECTS APPROVED BY THE CFC AND BECOMING OPERATIONAL

A. SISAL DEVELOPMENT: SISAL FIBRE REPLACING ASBESTOS IN CEMENT COMPOSITES

12. This project is designed to establish, at a pilot level, the technical and economic viability of the use of sisal fibre in the production of construction materials for the building industry. The emphasis will be on assessing the potential for the replacement of asbestos fibres thus far frequently used in the building materials industry in Brazil. The project will determine both the technical as well as the financial feasibility of producing sisal-cement composites. The main project activities will focus on establishing the technical parameters of various mixes of sisal fibre and cement to meet the minimum performance criteria set by the regulatory authorities for products in the building industry. The work will be undertaken in full co-operation with the building industry in Brazil. Results and experiences will be shared with other sisal/henequen producing countries, including China, Cuba, El Salvador Haiti, Kenya, Madagascar, Mexico, Mozambique, South Africa, United Republic of Tanzania and Venezuela. It is a three-year project to be implemented by SEBRAE National (Brazilian Micro and Small Business Support Service). Project activities are expected to commence before the end of 2004.

B. PILOT FACILITY FOR EFFICIENT COIR PROCESSING AND QUALITY CONTROL

13. This project, for implementation in Sri Lanka, was approved for funding early in 2004. The objective of the project is to undertake operational research and development for improved fibre extraction techniques and for the development of standards to be used for quality control

practices. The project will set-up a pilot facility, demonstrating optimum processing practices which can be adopted by the small-scale fibre processing units which are dominant in the sector. Improved production (increased quantities and higher quality) is to be matched with improvements in the working conditions and production environment currently prevalent, ultimately resulting in higher levels of profitability at the bottom-end of the coir production chain. This two-year project is to be implemented by the Industrial Technology Institute of Sri Lanka

IV. RECENTLY COMPLETED PROJECTS

A. ABACA: IMPROVEMENT OF FIBRE EXTRACTION AND IDENTIFICATION OF HIGHER YIELDING VARIETIES

14. This project was formulated to comprise three components: (i) design, production and testing of improved fibre extraction equipment; (ii) exchange of, and field trials with, high yielding disease resistant varieties in the Philippines; and (iii) technical support, project management and dissemination of project results.

15. Project activities commenced in the Philippines in 1999. Activities in the past year have included ongoing work on variety trials and on the development and fabrication of fibre extraction equipment. Progress with the variety trials was inhibited by high mortality rates due to unusually dry conditions.

(i) Design, production and testing of improved fibre extraction equipment:

16. The project developed and manufactured five hand tuxying tools, and conducted tests in the field. Two were considered promising for further prototype development, and performance tests by skilled operators were later undertaken.

17. Drawings of a semi-mechanised (not motorised) machine were prepared, and a prototype manufactured.

18. A motorised tuxying machine was built, tested, and modified several times to overcome imperfections revealed. Further modifications and testing were undertaken and the machine was later tested in the field in the Philippines and Ecuador.

(ii) Exchange of, and field trials with, high yielding disease resistant varieties:

19. Pre-selections of the best varieties were made during 1998 and 1999, from which virus-free material was selected in 2000 and propagated in 2001, distributed and planted in the three regions, starting in December 2001. The outcome of these trials is expected to lead to valuable results with respect to yield performance and the susceptibility to virus diseases, mainly mosaic and bunchy top virus. While it appears that no resistant selection is available, differences in disease susceptibility, as well as yield, are observable between varieties.

20. However, progress with the variety trials was inhibited by high mortality rates due to unusually dry conditions and an evaluation mission which visited the Philippines late in 2002 recommended that the project be extended for at least an additional 18 months, so that the results from the trials may be exploited as much as possible.

21. Project activities were scheduled to be completed in October 2004 and a workshop to disseminate the results of the project was scheduled to be held in the Philippines on 19 October 2004. Delegates to the Joint Meeting will be informed of the outcome of the dissemination workshop.

B. THE COMPARATIVE ADVANTAGES OF SISAL, COIR AND JUTE GEOTEXTILES

22. This was implemented under the *fast track* facility and involved a study to identify those areas of application in which natural fibre geotextiles could compete with polymeric geotextiles on both technical and economic grounds.

23. The study was completed and the findings published in 2004 ***Comparative Advantages of Sisal Coir and Jute Geotextiles***, CFC Technical Paper No 31. The publication is available upon request.

C. COMPOSITE APPLICATIONS USING COIR FIBRES IN SRI LANKA

24. This f*ast track* project aimed at reviewing the technological and economic potential of coir-based composite products. It commenced late in 2002, and was completed in 2003, resulting in the production of prototype products and culminating in a workshop in Sri Lanka. A report is available from the internet at http://www.fao.org/es/esc/en/20953/21005/highlight_30207en.html

V. FUTURE PROJECTS

25. Delegates may wish to identify new areas for future project proposals. In doing so, due consideration should be given to the Group's strategy for development (refer to document CCP: HF 04/4-JU 04/4). In addition, it should be noted that the Fund's ability to continue to make grant finance available is limited, and that the CFC is keen to increase the proportion of project activities funded by loans. The Fund has a policy of directing grant finance only to least-developed countries, although as many fibre-producing countries fall into this category, this policy will be of less consequence for hard fibres than for many other commodities. The CFC continues to stress the importance of co-financing from other sources and particularly wishes to see indications of tangible interest from the commercial sector. In its Manual for the preparation and management of projects, the CFC states that "... co-financing from other sources and counterpart contributions increase the acceptability of the project...".

26. Any new projects to be considered at the Joint Meeting should be submitted to the Secretariat by mid-November 2004.

Table 1. Summary of Hard Fibres Common Fund Projects

Fibre	Title	Value US$			Location of project activities	Start Date	Completion Date
		Grant From CFC	Loan from CFC	Total Budget			
1. Active Projects							
Sisal	Cleaner Integral Utilisation of Sisal Waste for Biogas and Biofertilisers	581 500		950 600	United Republic of Tanzania	2004	2007
Sisal	Product and Market Development of Sisal and Henequen Products	2 570 000	1 250 000	5 374 966	United Republic of Tanzania, Kenya	1997	2004
Coir	Coir-based Building and Packaging Material	1 398 000		1 698 000	Netherlands, Philippines	1998	2005
2. Recently Completed Projects							
Abaca	Improvement of Fibre Extraction and Identification of Higher Yielding Varieties	841 240		1 456 134	Philippines	1998	2004
Coir	Composites Applications Using Coir Fibres in Sri Lanka	60 000		90 000	Sri Lanka	2002	2003
3. Proposed Projects "in the pipeline"							
All	A Technical Workshop on Natural Fibre Composites	38 900		65 000	Europe		
Coir	Developing and Demonstrating Advanced Biological Spinning and Environmental Technologies for Small Coir Enterprises in India	1 548 694		3 097 388	India		