FACSIMILE TRANSMISSION

United Nations Development Programme

GLOBAL ENVIRONMENT FACILITY (GEF)

Date: 13 January 2000

To: Mr. Kenneth King
Assistant Chief Executive Officer
GEF Secretariat

Mr. Lars Vidaeus, Chief
Global Environment Div.
World Bank

Mr. Ahmed Djoghlaf
GEF Executive Coordinator
UNEP, Nairobi, Kenya

Pages: (7 including this sheet)

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From: Emma Torres
Officer-in-Charge and
Deputy Executive Coordinator

Subject: **PDF A Funding – Malaysia: Barrier Removal for Biomass Residue Cogeneration**

Please find attached for your review and comments, a PDF Block A request for funding entitled: "**Malaysia: Barrier Removal for Biomass Residue Cogeneration**".

We would appreciate receiving your comments no later than c.o.b. Thursday 20 January 2000.

Thank you.

PM

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Proposal for PDF Block A Grant

PART I - ELIGIBILITY	
1. Project name: Barrier Removal for Biomass Residue Cogeneration.	2. Proposed GEF Implementing Agency: UNDP
3. Country or countries in which the project is being implemented: Malaysia.	4. Country eligibility: Ratified UNFCCC on 17 July, 1994
5. **GEF focal area(s):** Climate Change	6. Operational program: OP6- Promoting the Adoption of Renewable Energy by Removing Barriers.

7. Project linkage to national priorities, action plans, and programs:

The Government of Malaysia's initiative to incorporate renewable energy as an integral component of the nation's energy policy through the Mid-Term Review of the 7th Malaysia Plan (1996-2000) provides an opportunity for the development of renewable sources of energy for wider utilization. The Government of Malaysia is determined to diversify its fuel supply. The mid-term review of the 7th Malaysia Plan proposes a "Five Fuel Diversification Strategy", in which biomass energy is listed as one of the five priority fuel sources that will be developed in the near future. The other four fuels as per the current strategy are oil, gas, coal, and hydro. Under proposed renewable energy the focus is on biomass and solar energy.

Current consumption of renewable energy in Malaysia is estimated to be about 13% of the country's total energy consumption. Biomass residues from the palm oil, wood, and rice industries as well as solar energy have the largest potential for renewable energy development and utilization in the country.

Palm oil industry is one of the largest producers of biomass residues. There are about 330 palm oil mills in the country, which can generate 36,376,500 tons of biomass residues each year. Currently, only a small portion of the residues is used to generate steam and electricity in the mills, with very low conversion efficiency.

8. GEF national operational focal point and date of country endorsement:

Ministry of Science, Technology & Environment; Endorsed:

9. Project rationale and objectives:

This project is aimed to remove barriers to commercial utilization of biomass residue cogeneration and power generation for grid-connection to substitute for current use fossil fuels in Malaysia. In addition, the project also aims:

- to promote the use of more efficient technologies to increase mill productivity and maximize energy generation from biomass waste;
- to develop a mechanism that enables the supply of energy from indigenous sources for peak demand through the distribution system (not the transmission grid); and

- to mitigate the negative impacts of the local environmental, environmental problems associated with disposal of biomass wastes and inefficient burning of such wastes.

Overall, this project will reduce greenhouse gas emissions, and increase indigenous secure energy supply from biomass residues in Malaysia. The success of this project will provide a wide replication potential in Malaysia and other parts of the world.

10. Expected outcomes:

1) Biomass residue cogeneration becomes commercialized at a large scale in Malaysia;
2) Large-scale grid-connected efficient biomass cogen/power plants approve to be technically and commercially viable in Malaysia.
3) Industries become interested and confident in investing in biomass residue cogeneration technologies;
4) National fuel supply becomes more diversified and secure;
5) Sound regulatory framework is in place to promote biomass cogen/power in Malaysia
6) Local manufacturing capacities of cogeneration technology equipment are strengthened;
7) National technical capacity to design and operate boimass cogen/power plants is increased;
8) Investors and financiers are aware and confident in biomass residues cogeneration technologies;
9) Investors will have easy access to financing for biomass cogen/power projects;
10) The utilities desires to buy from biomass residue cogeneration power producers;
11) Business development assistance and financial facilities become readily available for the biomass residue co-generation and power investors;
12) The project has global environmental benefits by reducing CO_2 emissions from fossil fuel combustion, and avoiding CH_4 emissions from landfill wastes;
13) This project also has local and regional environmental benefits by reducing SO_2, NOx, and particulates emissions from fossil fuel combustion.
14) The palm oil mills have reduced waste management costs.

11. Planned activities to achieve outcomes:

1) Evaluate technical requirement and international best practices of palm oil residues cogeneration;
2) Identify the optimum technical practices (including boiler technology and turbine specification) for palm oil residue cogeneration that suit the Malaysian situation;
3) Hold training workshop on design residue cogeneration technologies, and operation as well as maintenance of the equipment;
4) Training and awareness workshop for bankers, investors, creditors and project developers on financing schemes for commercial development of cogeneration power plants;
5) Support local manufacture of cogeneration technology equipment;

6) Identify risks for project financing and strengthen power purchase agreement;
7) Set up project financing or contingent financing mechanism.
8) Hold training and awareness workshops for utilities to increase their willingness to purchase power from biomass power IPPs.
9) Improve regulatory framework to provide financial incentives specifically to biomass co-generation and power generation
10) Build capacity to provide business development assistance and services to biomass power investors

12. Stakeholders involved in project:

Ministry of Energy, Communications, and Multimedia; Ministry of Primary Industries; National Energy Centre; Economic Planning Unit, Department of Electricity Supply; Department of Environment; EC-ASEAN COGEN; PORLA; PORIM; SIRIM; TNB; SESCO (Utility in Sarawak), SEB (Utility in Sabah); Independent Power Producers (IPPs), palm oil mills; Palm Oil Mills Association, Oil Palm Estates Industry Grouping; domestic financial institutions, bilateral donors such as DANCED, and UNDP.

PART II – INFORMATION ON BLOCK A PDF ACTIVITIES

13. Activities to be financed by the PDF A:

The objective of this PDF A is to assist the Government of Malaysia using the incremental cost and logical framework approach, in formulating and finalizing a GEF full Project brief and project document to submit for GEF financing in developing biomass cogeneration technologies. This PDF A will be completed under the guidance of the RBAP/GEF Regional Coordinator for Climate Change and in collaboration with the GEF Technical Specialist for Climate Change. The PDF A will cover the costs for:

1) Traveling to Malaysia for the GEF Technical Specialist;
2) Hiring two national consultants, and one international technical consultant including travel and DSA to work with the GEF Technical Specialist, to provide detailed technical and financing support for formulating a GEF full Project brief and project document to submit for GEF financing;
3) Organizing and holding a project formulation workshop with all stakeholders involved to identify major barriers to biomass co-generation and power generation in Malaysia;
4) Work closely with MECM in selecting sites for demonstration plants;
5) The project team will assist MECM Malaysia, UNDP Malaysia and RBAP-GEF/UNDP in the project brief development activities.

14. Expected outputs and completion dates:

1) A GEF full Project brief and project document;
2) A brief mission report.

Completion date: 31 May 2000

15. Other possible contributions / donors and amounts:

GEF: Government cash, and in-kind contribution for this PDF-A proposal. The full project is expected to draw funding from GEF, Government and private sectors of Malaysia, with possible co-funding from Danish Cooperation for Environment and Development (DANCED).

16. Total budget and information on how costs will be met (including the Block A grant):

GEF Technical Specialist	US$ 6,198
International Technical Consultant	US$ 10,802
National Technical Consultant	US$ 4,000
National Financing Consultant	US$ 2,500
Workshop (2/3 workshops) (40 participants)	US$ 1,100
Documentation	US$ 200
Sundry	US$ 200
Total budget:	US$ 25,000

- The Government also will provide in-kind contribution of US 30,000, in terms of experts and counterpart participation for the project

17. Name: Ministry of Energy, Communications, and Multimedia	18. GEF Implementing Agency: UNDP
19. Mandate/terms of reference: To identify/formulate/implement all activities related to energy including biomass cogeneration. Also responsible in developing policies, enforcing regulations, granting power generation licenses, formulating other renewable energy options to ensure a sustainable and secure energy supply to meet the national demand.	20. Recent activities/programs, in particular those relevant to the GEF: Industrial Energy Efficiency Improvement project

PART IV – INFORMATION TO BE COMPLETED BY IMPLEMENTING AGENCY

21. Project identification number: MAL/00/G41

22. Implementing Agency contact person: Dr. Nandita Mongia, GEF Regional Coordinator for Climate Change, RBAP-UNDP

23. Project linkage to Implementing Agency program (s): National Five Fuel Diversification Strategy

ANNEXES:
Annex 1: Timeline to develop the Biomass Cogeneration Project Brief

ANNEX 1: TIMELINE TO DEVELOP THE BIOMASS COGENERATION PROJECT BRIEF

Task	February 2000	March 2000	April 2000	May 2000
1. Start-up meeting/workshop (MECM).				
2. Consultant to meet stakeholders involved in the project in preparing the project brief (MECM/consultants).				
3. Draft project brief ready (consultants/MECM).				
4. Meeting/workshop to discuss draft brief (MECM).				
5. Incorporation of comments (consultants).				
6. LPAC to discuss and finalize the project brief (MECM).				
7. Incorporation of comments (consultants).				
8. Send brief to New York for comments (consultants).				
9. Comments from New York (UNDP-GEF).				
10. Incorporate comments form New York (MECM/UNDP).				
11. Government endorsement of the brief (MECM).				
12. Bilateral meeting (UNDP-GEF).				
13. Final Government endorsement (MECM).				

MINISTRY OF SCIENCE, TECHNOLOGY
AND THE ENVIRONMENT, MALAYSIA.
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Our Ref: KST&AS 120.080.
Your Ref: P001/013/2 Jld 2 (9)
Date: 12 January 2000

The Resident Representative,
United Nations Development Programme,
Kuala Lumpur

Dear Sir,

Proposal for PDF Block A Grant:
Barrier Removal for Biomass Residue Cogeneration

I wish to refer to the above proposal a copy of which is enclosed herewith. I am pleased to inform you that the Ministry of Science, Technology and the Environment, as the GEF national operational focal point, hereby endorses the said proposal for GEF support. We hope that the proposal will receive favorable consideration.

Thank your for your kind consideration.

Yours Sincerely,

(Dr. Raman Letchumanan)
for Secretary-General,
Ministry of Science, Technology and the Environment,
Malaysia

cc
Secretary General,
Ministry of Energy, Communications and Multimedia
(attn: Mr. Thiyagarajan Velumail)

Director General,
Economic Planning Unit
(attn: Mr. S. Muthusamy)