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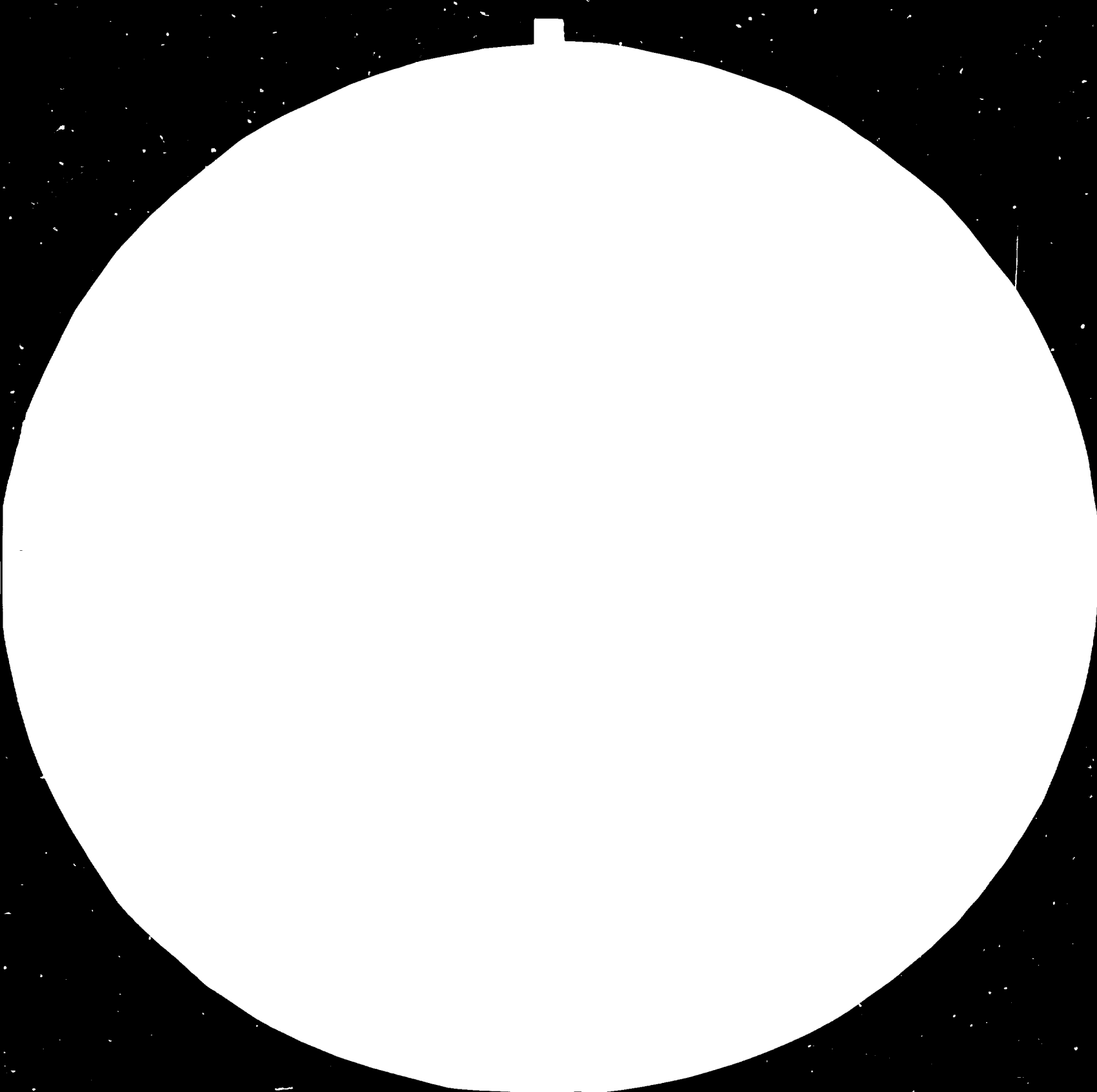
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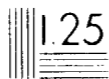
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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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MISSION REPORT

on the

Seminar on Modern Maintenance Techniques

for the

English Speaking Caribbean Countries *]

Georgetown, Guyana

October 16 to 20 of 1983

F. Chacon-Paig

Industrial Development Officer

IO/ENG

Vienna, December 1983

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without formal editing

1. Background

In 1982 and part of 1983 within the activities of the preparatory phase for the establishment of the regional project for the improvement and modernization of the repair and maintenance techniques in the sugar mills of Latin-America and the Caribbean, a group of UNIDO experts visited several countries in the English speaking Caribbean, setting up the requirements and prerequisites for the above mentioned regional project. During the visits, it was realized that there was a need for a Seminar to brief the management and technical staff of the sugar mills of the English speaking Caribbean countries on the lately developed repair and maintenance techniques for sugar mills. The Guyana Sugar Corporation Ltd. (GUYSUCO) amiably offered its installations and support to hold that Seminar.

2. The Seminar

In co-operation with GLACSEC (Group of Latin America and Caribbean sugar exporting countries) eight lecturers were hired. Additionally a company specialized in recovery of machine parts was also invited to participate in the Seminar. The Seminar was attended by some 30 management and technical staff from Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago (please see Annex I - List of Participants).

The opening session of the Seminar was presided and addressed by Mr. Hamilton Green, M.P. Vice-President (Production) of the Government of Guyana. Speeches from Mr. Harold B. Davis, C.C.H. Chairman of GUYSUCO, Mr. H. Blades, Director of Trade and Agriculture of CARICOM Secretariat, Mr. A. Golcher, Deputy Executive Secretary of GLACSEC, Miss Cecile Davis, UNDP Resident Representative, in the name of UNDP and UNIDO were also held during the opening session (please see Annex II - Miss Davis's address).

During the Seminar, combining the discussions of the technical papers presented by the lecturers (please see Annex III - List of the Lecturers) with practical demonstrations at workshop and sugar mills level, the following technical aspects were analysed:

- Maintenance organization and administration
- Maintenance planning and implementation
- Maintenance follow-up and personnel training
- Computerization
- Non-destructive testing
- Recovery of parts
- Corrosion and Abrasion
- Support workshop

3. Others

While in Georgetown attending the Seminar, the staff member had a meeting at GUYSUCO Headquarters with Mr. Winston E.H. Tyrell, GUYSUCO's Technical Director during which possible UNIDO assistance was discussed to the GUYSUCO Central Repair Workshop in order to help resolving some technical problems in the workshop which prevent the provision of optimum service to the 11 sugar mills of GUYSUCO. The staff member obtained the required background information and suggested Mr. Tyrell to approach the UNDP Office applying for SIS assistance.

The staff member, upon arrival in Georgetown, visited the UNDP Office and briefed Miss C. Davis on his mission. Mr. H. Walks, programme officer of UNDP also participated in this meeting. Before leaving the country, the staff member visited the UNDP Office again and debriefed Miss C. Davis on his mission in Georgetown and also on his meeting with Mr. Tyrell. It was agreed that UNDP Office will discuss the possible SIS assistance to the Central Repair Workshop of GUYSUCO with Mr. J.L. Ortiz, PC/DEV during his planned forthcoming visit to the country.

4. Conclusions

The Seminar was relevant to its immediate objective, having successfully briefed a group of management and technical staff of the sugar mills in the English speaking Caribbean countries on the latest repair and maintenance techniques in sugar cane mills. As a result, the participants felt the need to repeat a similar activity, perhaps in three years' time.

The support given by the Government of Guyana and the unfailing attention to the Seminar's development given by the GUYSUCO staff-- Mr. Harold B. Davis, Chairman and Mr. Winston E.H. Tyrell, Technical Director, have been invaluable. Also worthy of mention was the organization work of GUYSUCO Chief Engineer, Mr. Carl A. Sylvester who, through his personal efforts and initiative, has contributed greatly to the success of the Seminar.

Based on the findings of the staff member during his visit to GUYSUCO headquarters and installations, a project proposal under SIS financing will be prepared, for Government and UNDP consideration.

ANNEX I

List of Participants

From Barbados

C. Hanschell
G. Coppin
O. Hinds
H. Roberts
D. Trothan
L. Byer

Bulbin Sugar Factory
Carrington Sugar Factory
Port Kaituma Foundry
Four Corners Sugar Factory
Andrews Sugar Factory
Port Kaituma Sugar Factory

From Belize

L. Pandey
L. Hatute

Belize Sugar Ind. Ltd.
Belize Sugar Ind. Ltd.

From Guyana

Carl A. Sylvester
1 representative for each one
of the Guysuco sugar mills

Guysuco Chief Engineer
Guysuco Chief Mills

From Jamaica

G. Kaidley
E. Finlay
J. Jaddo
R. Lincoln
R. Martin
T. Edwards
L. Richards
B. Lodge

National Sugar Co.
National Sugar Co.
Sugar Industry Research Institute
Jamaica Cane Casting
National Sugar Co.
National Sugar Co.
National Sugar Co.
FAEC

From Trinidad and Tobago

S. Rahcharan
J. Lovell

Trinidad and Tobago
Casting Society

A N N E X I I

Speech of Miss C. Davis, UNDP Resident Representative in the Opening Session

Mr. Chairman, Dce. Minister, Distinguished guests, participants:

First of all I must express appreciation for the invitation so kindly given to me to briefly address this opening session of the Seminar on the Maintenance of Sugar Mills for the English speaking Caribbean countries organized jointly by the Guyana Sugar Corporation, the Group of Latin American and Caribbean Sugar Exporting Countries, GLACSEC and UNIDO.

This seminar is one of the many ways in which the UN system through its member agencies has been able to provide assistance to the sugar industry of the Caribbean and Latin America. The Sugar Industry in the Latin America and Caribbean region produces 32 % of the world's total sugar output and shares in 52 % of the world's sugar exports. The region also has approximately 700 sugar mills valued at nearly Bn\$ 20 with maintenance costs running annually at approximately Bn\$ 1.

These facts point up the importance of the sugar industry for the region and its economic well-being.

The UN has so far been able to provide GLACSEC with various forms of Technical Assistance, notably a project designed with the aim of supporting the efforts of GLACSEC to increase the efficiency of the sugar sector as a whole through increasing the capabilities of the GLACSEC secretariat, contributing to the integrated development of the sugar sector in member countries, providing technical cooperation and exchange among GLACSEC members, providing marketing assistance, and also undertaking research into the possibilities of sugar by-products.

It had a duration of two years 1980 - 1982 and was executed by UNCTAD and the GLACSEC Secretariat with a UNDP contribution of US\$ 855,000.

The present seminar which is being inaugurated today is the result of a further GLACSEC initiative, this time with the United Nations Industrial Development Organization, UNIDO. Through its industrial development mandate which inter alia emphasises the manufacturing sector, UNIDO pays special attention to the field of repair and maintenance of industrial installations, equipment and machinery in the developing countries. Industrial surveys in developing countries show that the installed equipment is sometimes insufficiently utilized. The reasons for low utilization of installed capacities are different, but to a large degree the considerable downtime of machinery is caused by breakdowns and stoppages which contribute to the low production levels. Poor maintenance and repair generally cause economic losses through lower efficiency of the installed machinery, lower quality of products and higher costs of production. In addition, poor maintenance and repair lead to the deterioration and the consequently shortened physical lifetime of installed equipment.

Starting in 1977, UNIDO has undertaken a project of assistance to the Ministry of the Sugar Industry of Cuba wherein advanced methods, systems and maintenance and repair techniques, most of which were developed within this project, are being introduced in the mills of the above mentioned Ministry. The data obtained from this project in Cuba show real possibilities of decreasing production expenses and losses by over thirty per cent.

Based on the experience of the above mentioned national project and promoted by GLACSEC, UNIDO in 1982 provided technical and financial assistance for the preparatory phase of a regional project aimed at introducing efficient modern systems and techniques for the maintenance of the sugar cane mills of Latin America and the Caribbean.

Work on this project was undertaken over a 3-month period by three international consultants who visited 12 countries in the region. As a result of their investigative work and recommendations, came a new project proposal for the maintenance of sugar mills in the region.

The mission in its report, found among other things, that the region's maintenance procedures, with rare exceptions, were inadequate -- that there was the need for an integrated standardized national maintenance system in all countries, with the exception of Cuba and Mexico -- that there was little experience in the region of techniques for reconditioning parts; that there was great need for training in skills required for maintenance -- there also was the need to develop an information and extension centre in the region to facilitate the sharing of technical expertise.

In essence it was found that the maintenance system for the region's mills was about 50 years out-of-date and lacked a rational scientific approach.

This seminar today is a partial response to the needs identified by the mission, which will have to be addressed more systematically over a longer term. It is therefore envisaged that a project, which has as its major focus, the establishment of modern production systems and techniques for maintenance and sugar mills should be undertaken. The first phase of such a project which is currently in the preparation stage, envisages funding by UNIDO and by UNDP to the tune of US\$ 600,000.

It is currently listed within the UNDP inter-country that is, the regional programme for Latin America and the Caribbean 1982 - 86 but its funding is by no means assured. Nonetheless the project proposal will shortly be circulated to interested potential participating countries, via the UNDP Resident Representative of the region, for governments' comments and endorsement. We would hope that, at that time, the UNDP financial resource position would be clearer, and would permit the approval of funding for this activity.

I should like to take this opportunity of observing that the certificates of attendance which participants will receive at the end of this Seminar, give prominence to UNDP, though as will be evident from my remarks, UNDP has not been a direct contributor to the Seminar. I trust that the fact that I have signed the certificates, in my capacity as UNDP Resident Representative will be interpreted as a gesture of appreciation towards UNIDO (which UNDP does represent in the field).

I hasten to make the disclaimer, that such signature should not, by any means, be interpreted as carrying any commitment by UNDP either ex post facto or for the future.

With these few remarks on the collaboration between the UN system and GLACSEC, may I now express the hope that your consultations and discussions here would be most fruitful and contribute to the ultimate goal which I am certain we all have in view - the increased efficiency and profitability of the regions sugar industry, with consequent positive, economic and social benefits for the people of the region.

A N N E X I I I

List of Lecturers

Mr. Fernando Vera	Peru
Mr. Miguel Angel Chavez	Mexico
Mr. Eduardo Moreno	Colombia
Mr. Jose Goenaga	Cuba
Ms. Lilian Llompart	Cuba
Mr. Rinaldo Caro	Cuba
Mr. Eduardo Casanova	Cuba
Mr. Enrique Pardo	Peru
Mr. Robert Messler	Eutectic Co. Representative, USA

