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Workshop on Creation and Transfer
of Metallurgical Know-how

Jamshedpur, India, 6 - 10 December 1971

AGENDA

Monday, 6 December 1971

- 09:00 - 10:00 - Registration
- 10:00 - 10:40 - Inauguration of the Workshop (NML Main Auditorium)
- NML Welcome
 - Prof. V.A. Altekar
Director, NML
 - Inaugural Message
 - Mr. I.H. Abdel-Rahman
Executive Director, UNIDO
 - Inaugural Message
 - Mr. N.K. Grigoriev
Director, Industrial
Technology Division, UNIDO
 - UNIDO Welcome
 - Mr. B.R. Nighawan
Officer-in-Charge, UNIDO
Workshop
 - Inaugural Address
 - Mr. S.K. Nanavati,
Managing Director, TISCO
- 10:40 - 11:10 - Coffee Break
- 11:10 - 11:50 - Election of Chairman and Vice-Chairman of the Workshop
(NML Conference Room)
- Chairman's Remarks
 - Technical Address
 - Mr. L.C. Corrêa da Silva
Chief, MIS, UNIDO
 - Remarks
 - Mr. H.I. Martin,
Discussion Leader

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

- 11:50 - 13:00 - Technical session
- Discussion of item I, topic 1
- 13:00 - 15:00 - Lunch
- 15:00 - 18:00 - Technical session
- Discussion of item I, topics 2, 3 and 4

Tuesday, 7 December 1971

- 09:00 - 13:00 - Technical session
- Discussion of item I, topics 5, 6 and 7
item II, Topics 1 and 2
- 13:00 - 15:00 - Lunch
- 15:00 - 18:00 - Technical session
- Discussion of item II, topics 3, 4, 5, 6 and 7

Wednesday, 8 December 1971

- 09:00 - 13:00 - Technical session
- Discussion of item II, topics 1 through 12
- 13:00 - 14:30 - Lunch
- 14:30 - 18:00 - Visit to the National Metallurgical Laboratory
and its pilot plants

Thursday, 9 December 1971

- 09:00 - 13:00 - Technical session
- Discussion of item IV, topics 1, 2 and 3
- 13:00 - 15:00 - Lunch
- 15:00 - 18:00 - Discussion of Draft Report of the Workshop

Friday, 10 December 1971

- 09:00 - 13:00 - Discussion of Draft Report of the Workshop
- 13:00 - 15:00 - Lunch
- 15:00 - 18:00 - Preparation of Draft Report of the Workshop.

METALLURGICAL INDUSTRIES SECTION

2-05-01 - Workshop on Creation and Transfer of Metallurgical Know-How

Preliminary Working Agenda

1. Identification of Capabilities required for
 1. Planning metallurgical plants
 - pre-feasibility studies
 - feasibility studies
 2. Design metallurgical plants
 - plant design
 - infrastructure design
 3. Design metallurgical equipment
 - strictly metallurgical
 - electro-mechanical
 - control
 4. Construction/Installation
 - civil construction
 - mechanical
 - electrical
 5. Develop (or improve or adapt) metallurgical processes
 - research (lab.)
 - development (laboratory studies and tests; pilot plant tests)
 6. Develop (or improve or adapt) metallurgical products
 - new alloys for specific applications
 - new composite products (coated, sintered, etc.)
 - new shapes or geometrics

- 7. Increase production, productivity and quality in metallurgical plants
 - application of operations analysis, instrumentation, automation, computerization
 - quality control

The identification should distinguish (a) level of industrialization of developing countries; (b) specific type of expertise (planning, equipment, designer, researcher, etc.); (c) organizations (private firms, institutes, etc.); (d) installations (shops, laboratories, pilot equipment, etc.); (e) purpose (large iron and steel plants, foundries, non-ferrous metals extraction, etc.)

II. Identification of needs of developing countries for

1. Planning metallurgical plants
 - pre-feasibility studies
 - feasibility studies
2. Design metallurgical plants
 - plant design
 - infrastructure design
3. Design metallurgical equipment
 - strictly metallurgical
 - electro-mechanical
 - control
4. Construction/Installation
 - civil construction
 - mechanical
 - electrical

- 5. Develop (or improve or adapt) metallurgical processes
 - research (lab.)
 - development (laboratory studies and tests; pilot plant tests)
- 6. Develop (or improve or adapt) metallurgical products
 - new alloys for specific applications
 - new composite products (coated, sintered, etc.)
 - new shapes or geometrics

III. Analysis of mechanisms and practical ways to stimulate the establishment of the capability needed in developing countries

- 1. Technical assistance agreements (between "donors" and "recipients")
- 2. Joint participation (firms created in developing countries with participation of local and foreign specialists).
- 3. Representation (offices and technical services of foreign firms, established in the developing country).
- 4. Development of local firms for engineering, design, consultancy, etc.).
- 5. Purchase of patents.
- 6. Purchase of design (drawings).
- 7. Purchase of know-how (consultants).

8. Establishment of centres of metallurgical expertise

9. Establishment of local facilities for equipment construction

10. Establishment of co-operative research and development associations

11. Organization of specific training programmes

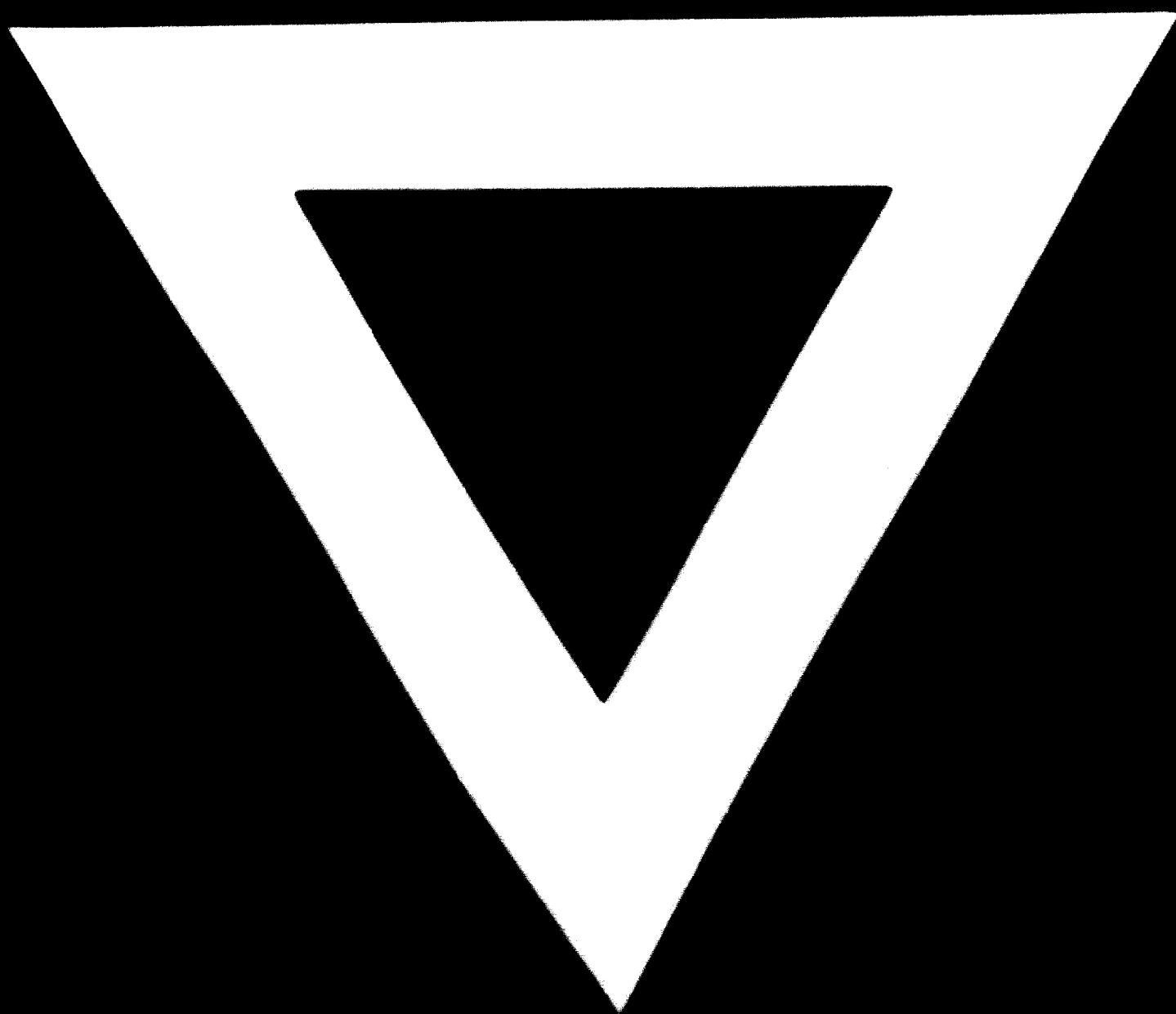
12. Copying and adaptation of equipment or processes

Discussions on above topics should be based on a practical approach, with use of "case studies" and collection of detailed information on concrete cases.

IV. Specific recommendations for action

Detailed and practical recommendations regarding actions:

- by Governments of developing countries;
- by enterprises of developing and developed countries;
- by UNIDO.



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