



GEF-UNDP PROJECT GLO/01/G34

GEF Focal Area: **International Waters**



Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies

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General Coordinator

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MINISTRY OF SCIENCE AND TECHNOLOGY
CENTRE FOR MINERAL TECHNOLOGY

BRAZILIAN FOCAL POINT

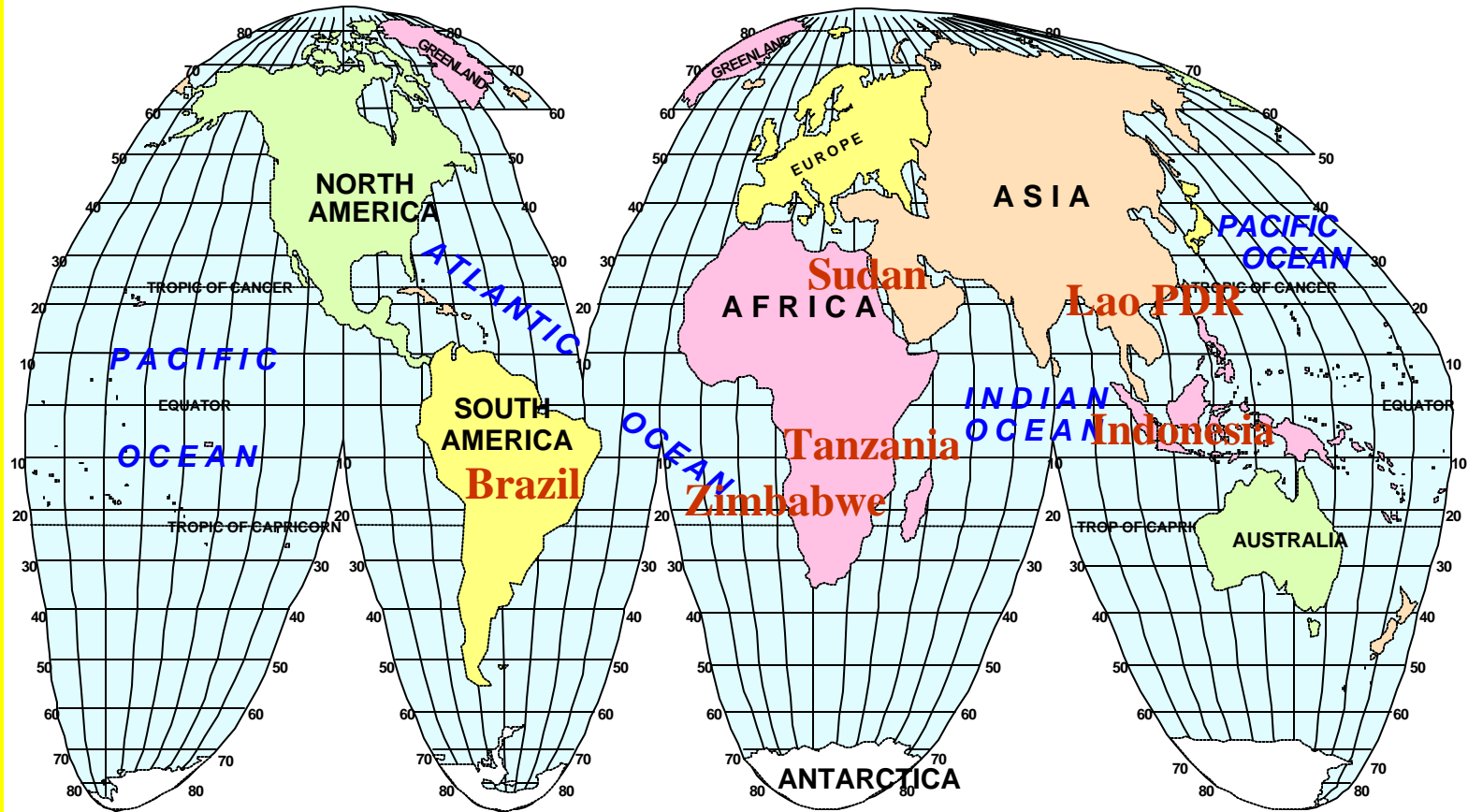
TAPAJOS RIVER BASIN

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WORLD

Countries Participating in the Project





GEF PROJECT

Project Financed by "Global Environment Facility"

Title: Removal of Barriers to the Abatement of Global Mercury
Pollution from Artisanal Gold Mining

Aims of the Project:

- Step 1** Identification of hot spots with the potential for affecting International Waters in Africa, Asia and Latin America
- Step 2** Diagnostic missions
- Step 3** Preparation of Project Briefs and Project Documents

Present Focus Areas:

Gold mining areas in Brazil in the Amazon Basin

Lake Victoria and adjacent small-scale gold mining areas in Tanzania

Artisanal mining sites along the Nile in Sudan

Small-scale gold mining along tributaries of the Zambezi in Zimbabwe

River bed gold mining activities along the Mekong in Lao PDR

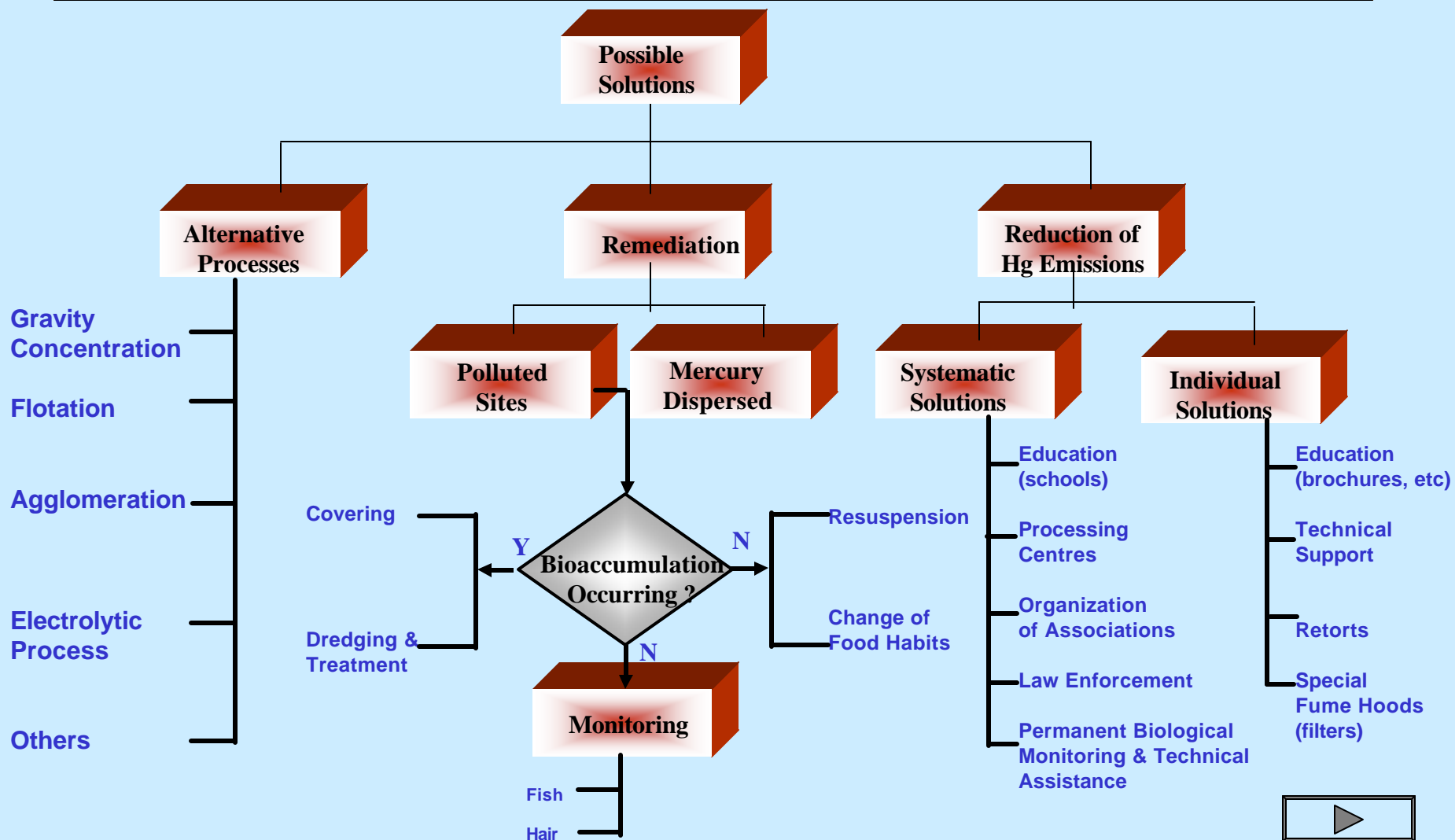
River bed gold mining activities along rivers in Kalimantan draining to Java Sea in Indonesia





PROJECT TARGET:

REDUCING MERCURY POLLUTION





PROJECT OBJECTIVES

- Objective 1A:** Establishment of a UNIDO- based Program Coordination Unit (PCU) and a Global Project Task Force.
- Objective 1B:** Provision of resources and establishment of the programme management structures in each of the six participating countries (Brazil, Indonesia, Lao PDR, Sudan, Tanzania, Zimbabwe).
- Objective 2:** Identify project demonstration sites and **organize training** aimed at increasing knowledge and **raising awareness** of miners, Governments, NGOs and the general public on the environmental and health impacts and economic benefits .
- Objective 3:** Assess the extent of environmental (mercury) pollution in surrounding water bodies and devise intervention measures.





PROJECT OBJECTIVES

- Objective 4:** Establish a databank comprising of technological requirements relevant to artisanal gold mining and extraction activities through field investigations and interviews with miners.
- Objective 5:** Acquire and demonstrate, within the project demonstration sites, the application of affordable **high-efficiency clean technology**.
- Objective 6:** Develop sustainable extraction indicators and hence assist Governments to develop country specific **policies and legislation**.
- Objective 7:** Promote the dissemination of the produced project results and identify opportunities that will allow the project to continue beyond the three year time frame through self-financing and to conduct a Donor Conference to solicit financing.





IMPLEMENTATION STRATEGIES

Institutional Set-ups

Global Environmental Facility
- Financing
- Monitoring & Evaluation

UNIDO - Executing Agency
Coordination & Execution
- Chief Technical Adviser
- Small-scale Mining Expert

UNDP - Implementing Agency
- Oversee Implementation
- Monitoring & Evaluation

Global Project Task Force
- Review global strategies
- Provide guidance

Basin Project Task Force
- Basin member countries
- Provide guidance

Country Focal Point
Senior Government Official
- Country Project Manager
- Project reporting

Assistant Country Focal Point
- Project supervision
- Arrange meetings/workshops
- Project reporting

Country Project Task Force
- Review country strategies
- Monitor implementation
- Provide guidance



IMPLEMENTATION STRATEGIES

Target Areas (1)

Training and Raising Awareness:

- On-the-job training on Cleaner Technology
- Training of women miners and entrepreneurs
- Awareness campaign workshops
- Awareness campaigns through media
- Local and regional workshops





IMPLEMENTATION STRATEGIES

Target Areas (2)

Reduction of Mercury Pollution:

- Conduct geochemical sampling - “hot spots” areas
- Analysis of human & other biological samples
- Establish mercury migratory patterns
- Enhance local laboratory monitoring capacity
- Formulate measures for remediation of “hot spots”





IMPLEMENTATION STRATEGIES

Target Areas (3)

Demonstration of Cleaner Technology:

- Establish databank of technological requirements
- Training for local equipment manufacturers
- Demonstrate alternatives to amalgamation
- Demonstrate cost effectiveness of new techniques
- Develop & test micro-financing programmes





IMPLEMENTATION STRATEGIES

Target Areas (4)

Development of Policies & Legislation:

- Review current policies and legislation
- Make consultations and give recommendations
- Convene workshops to discuss recommendations
- Assist Government to develop enforceable standards
- Assist Government to develop enforcement programme





IMPLEMENTATION STRATEGIES

Target Areas (5)

Raising Funds for Project Extension:

- Organize annual local and regional workshops
- Review opportunities for self-financing of project components
- Organize a donors' conference





PROJECT BENEFITS

Global Benefits

- Reduced mercury pollution to International Waterbodies
- Replication of experience and increased global awareness
- Availability of information regarding mercury pollution
- Increased knowledge regarding mercury migration
- Accessible Website on artisanal mining & environment
- Developed training modules that can be easily adapted
- Developed & tested project management framework





PROJECT BENEFITS

Local Benefits

In addition to Global Benefits, individual countries will have:

- Developed continuous monitoring programmes
- Enhanced monitoring capacity of local laboratories
- Developed & tested micro-financing frameworks
- Cleaner & efficient gold processing techniques
- Enhanced access to equipment & technology
- Practical and enforceable mercury application standards
- An implementable enforcement programme
- Database on current artisanal mining technologies





GEF PROJECT'S BUDGET

Description	Percentage	Totals	Expenditure Per Year (US \$)		
	(%)	US \$	2001	2002	2003
INT. EXPERTS & TRAVEL	17.4	1,186,900	393,800	366,300	426,800
NATIONAL EXPERTS	26.5	1,801,250	474,375	663,575	663,300
SUB-CONTRACTS + TRAINING	28.9	1,964,050	438,570	1,246,630	278,850
EQUIPMENT	19.6	1,336,500	319,000	621,500	396,000
SUNDRIES & MEETINGS	7.6	518,100	192,170	121,220	204,710
GRAND TOTAL	100.0	6,806,800	1,817,915	3,019,225	1,969,660

CO-FINANCING:		
UNIDO	360,000	
UNDP	140,000	
Brazil	2,953,000	
Indonesia	2,089,000	
Lao PDR	60,000	
Sudan	200,000	
Tanzania	1,630,000	
Zimbabwe	5,450,000	

TOTAL CO-FINANCING: 12,882,000

