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STATUS OF UNIDO PIPELINE PROGRAMME:
US/RAS/92/120: ASSISTANCE TO THE TANNING INDUSTRY
IN SOUTH-EAST ASIA*

Prepared by
the UNIDO Secretariat

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I. US/RAS/92/120 - STATUS OF PROGRAMME

Following the Tenth session of the Leather and Leather Products Panel in Madras, India, in Nov. 1991, UNIDO submitted all project documents for negotiation with potential donor countries. At an informal donor group meeting held at UNIDO's headquarters in December 1992, most of the donor countries expressed their strong support to the programme. It has proved to be very difficult, however, to have firm financial commitments to the programme. Most important, however, has been the contribution of the Government of Switzerland to the national project for India, US/IND/90/144. Funding for the remainder of the programme, i.e. both the regional umbrella project (US/RAS/92/120) and the individual country projects, has so far only been secured for the Nepal project by the Government of Finland (subject to contributions of other donors) and an additional contribution by the Swiss Government to co-finance the national Indonesia project with US \$ 700,000.

In the course of recent negotiations with potential donors countries, UNIDO has revised the umbrella project, taking into account concerns raised by several of the donors. These concerns mainly related to the coordination and management aspects of the programme and the direct assistance to the leather industry, in some cases seen by some donors as subsidies. Finally, the social aspects, the introduction of cleaner technologies and the sustainability of the programme were questioned. These aspects are explained in the current paper which constitutes the response to the donors' concerns.

Under the prevailing circumstances, the regional programme has not yet been launched. However, UNIDO is at an advanced stage of preparation for the implementation of the programme. Recent missions and on-going consultations with the interested donor countries have confirmed that decisions will be made in the nearest future. UNIDO is positive that it will be possible to implement at least Phase I of the programme. For an overview of the funding situation and the costs involved, please see p. 7.

Phase I:

**Regional Asia Phase I
(Umbrella Project)
(1,766,700 \$)**

**Assistance in Pollution Control
in the Tanning Industry in South-East
Asia**

Indonesia	(1,223,000 \$)
Nepal	(617,000 \$)
Thailand	(993,000 \$)
India (on-going)	(1,357,965 \$)
Sri Lanka	(1,241,000 \$)

Total: 7,198,665 \$

Phase II:

**Regional Asia Phase II
(Umbrella Project)**

**Assistance in Pollution Control
in the Tanning Industry in South-East
Asia**

People's Republic of China	(2,228,000 \$)
Pakistan	(483,000 \$)
Bangladesh	(483,000 \$)

Total: 3,194,000 \$

It is desirable and most likely that the umbrella project will be co-financed by more than one donor, whereas each of the country projects can be considered for financing by individual donors.

Due to the funding situation, the Pallavaram cluster of tanneries close to Madras, India, is considered to be the most suitable place for the regional headquarters field centre. This is also the project site of the national project for India, US/IND/90/244 which is already under implementation; a large-scale common effluent treatment plant is currently under construction, and cleaner technologies are being introduced in several tanneries near Madras.

1. Reasons for the scaled-down approach

The regional programme was designed from the outset in such a way that it can be started in modules. After carefully reviewing the funding situation, UNIDO has prepared the proposed phased programme. The activities of the umbrella project (training seminars, workshops, timing and selection of specific consultancies) will be determined following the selection of the participating countries and the drawing-up of the final project work plan. At the project site in Madras, land has already been allocated and the Indian national counterparts are keen to have the programme launched. Moreover, the Governments of each of the participating countries under Phase I have consistently expressed their commitment and interest. It is therefore strongly believed that as soon as donors have made their pledges, the programme can be launched immediately.

The USIND90244 national project for India has been financed, from the outset of the programme, by Switzerland. This project is already quite advanced (see above). As the regional headquarters for the programme will be located close to the site of the national project in India near Pallavaram, Madras, the regional umbrella project can benefit directly from the lessons learned during the implementation of the national project. The raw material for the pilot treatment plant to be established - i.e. the effluent from the common treatment plant - is available and the cleaner technologies being installed in the tanneries at Pallavaram will ensure a maximum multiplier effect. Of the other regional strongholds, the Samut Prakarn cluster of tanneries near Bangkok, Thailand will also play an important role, especially concerning sludge handling and disposal in common effluent treatment plants.

1.1 Direct support to the leather industry

Under the national projects in each of the participating countries, full-scale industrial demonstration units will be installed with private tanneries for the implementation of cleaner technologies. In most cases, such units will be established in a cluster of tanneries as common service facilities. The cost of civil works for these installations will be fully borne by the industries, as well as operation and maintenance costs. To avoid twisting the markets in cases of direct assistance to individual tanners, UNIDO intends to establish revolving funds in all countries concerned, ensuring that all equipment will be fully repaid by the industry on soft terms. The revolving funds have been successfully used in UNIDO's Africa Leather Development Programmes (USRAF/88/100 - Regional Hides and Skins Improvement and the USRAF/88/102 - Regional Tannery Rehabilitation Scheme) as a funding and repayment facility for equipment delivered and installed in industrial enterprises. The enterprises repay the equivalent value in local currencies of equipment delivered by UNIDO into a revolving fund on soft terms over a period of e.g. 10 years with an initial one-year grace period. This fund is administered by a local industrial association and will be used for the further development of the leather sector as a whole. In this manner, the investments remain in the sector, the enterprises fully repay the equipment on soft terms, and the funds are maintained for training, new technology acquisitions, study tours, etc.

1.2 Pilot plant

Only one full-scale pilot plant will be constructed for demonstration, testing and training purposes under the umbrella project (USRAS92/120) near Pallavaram, Madras, India. The facility will be part of a Common Effluent Treatment Plant for the cluster of tanneries, established under the national project for India (US/IND/90/244). The company established to operate this common facility as well as the host institutions, i.e. the Central Leather Research Institute (CLRJ) and Tamil Nadu Pollution Control Board (TNPCB) will be willing to cover operation and maintenance costs and repay the equipment delivered. In all other cases, demonstration units will be installed directly in the industries, see above.

1.3 Sustainability

The programme will attain its sustainability through the direct adaptation by the industry of the cleaner technologies and the direct covering of construction expenses, operation and maintenance costs and the revolving fund mechanism to be applied for the repayment of equipment component throughout the programme. A follow-up project is not envisaged at this stage, but, since UNIDO is suggesting a two-phase approach, the technical assistance, training and consultations under Phase I will be utilized also as the Phase II will commence activities. Finally, the continuous consultations between the strongholds of the region during the project implementation will strengthen the future coordination between the institutions involved.

2. **Coordination and responsibilities within the Assistance in Pollution Control in the Tanning Industry in South-East Asia (US/RAS/92/120) and the individual country projects (please refer to organogram, p. 8)**

***UNIDO Backstopping Officer
at Headquarters***

The backstopping officer will be the overall project manager, responsible for the entire programme. He will ensure that appropriate levels of technology are applied in the programme and that UNIDO policies and principles are followed. The backstopping officer will coordinate the international inputs to the programme, identify, brief and debrief experts and subcontractors. He will also be responsible for monitoring and evaluation, as well as financial aspects of the project. Finally, he will serve as a member of the UNIDO/donor steering committee.

***Project Coordinator
Umbrella Project***

The Project Coordinator is directly and mainly responsible for the coordination of the programme and has daily management responsibilities. He synchronizes action between the umbrella project and individual country projects. The coordinator will coordinate and optimize inputs from subcontractors and consultants with the specific needs of individual country projects and ensure appropriate linkages between the project (e.g. the use of consultants on a rotation basis). He is also responsible for the training programme of the umbrella project, and for the establishment and operation of an effluent treatment plant and a laboratory for training and demonstration purposes at regional headquarters; Finally, he will coordinate and monitor the application of cleaner technologies in individual country projects.

***National Project Directors
Country Projects***

The National Project Directors (NPDs) will - in liaison with the project coordinator - be directly responsible for project activities at national level. They will ensure the timely national inputs from counterparts, government, national experts, consulting companies and liaise with government authorities and the tanning industry in each of the countries participating in the programme. They will also help identify training needs, and act as focal points in the identified strongholds (e.g. CLRI, Madras, India for cleaner technologies and training; IRDLAI, Indonesia, for small and medium-scale tannery pollution control)

It should be remembered that the role of the National Project Directors is to ensure specific country project objectives are achieved. The overall problems of the tanning industry in the region are similar, but, according to national priorities, the objectives of the individual country projects differ.

3. Introduction of cleaner technologies

The promotion of cleaner and cost efficient technologies to the tanning industry in developing countries was one of the main recommendations of the Expert Group Meeting (with participants from most of the countries of the programme) held in Madras, India in Feb. 1991 and of the Technical Symposium at the UNIDO Ecologically Sustainable Industrial Development conference held in Copenhagen, October 1991.

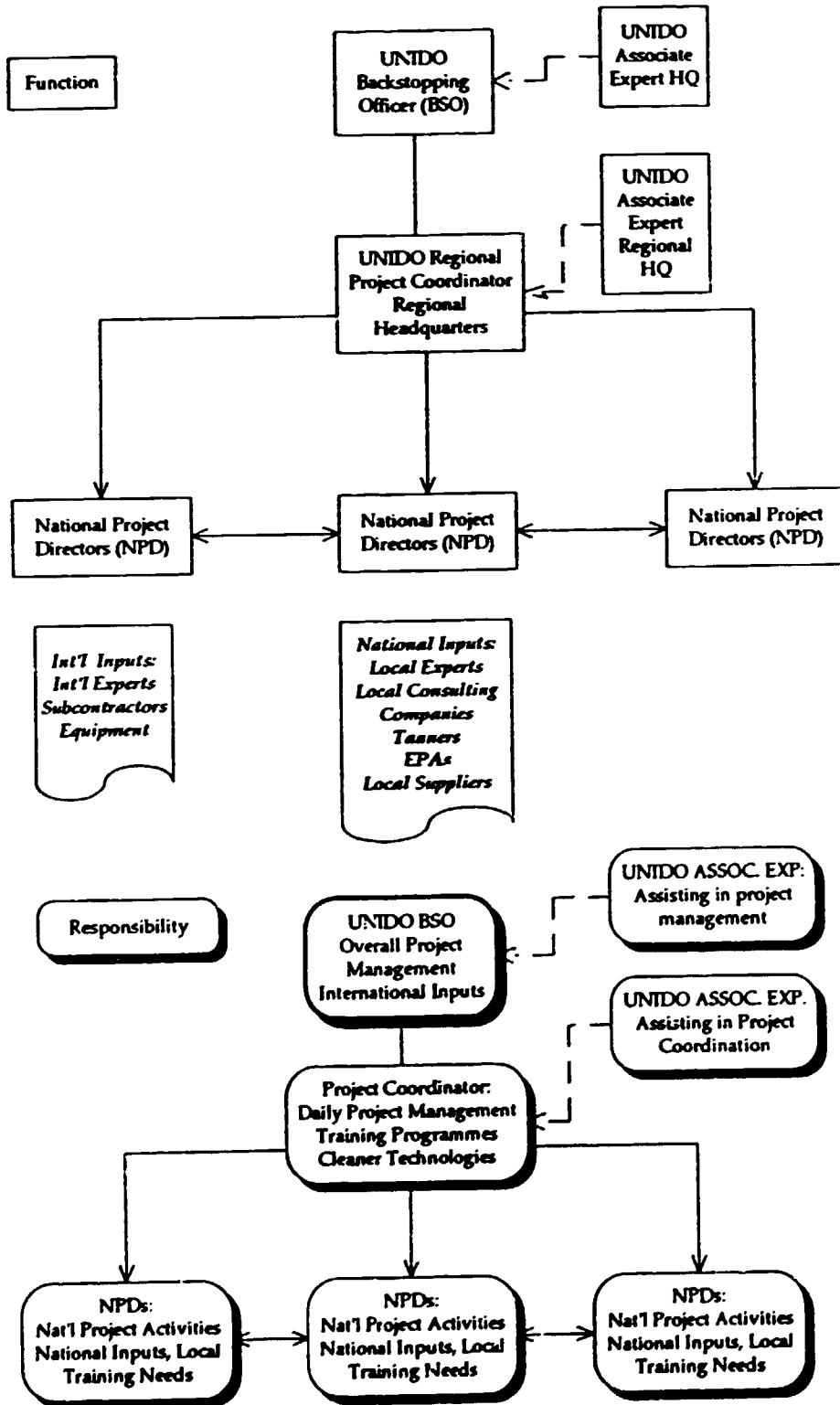
More specifically, these meetings highlighted pollution control awareness campaigns targeted at the tanners and national institutions as a vehicle for implementation, together with demonstration facilities, training programmes and information to tanners on the cost-saving of some of the cleaner technologies. The cost of some of these technologies are high, and the process control must be much more stringent than today. Thus, one of the chief requirements will be adequately trained operators in the tanneries. The traditional reluctance of tanners towards changes in the production processes is well known to UNIDO.

The savings of often costly chemicals applied in the tanning process in these developing countries by introducing reuse/recycling/recovery systems can pay for the simple equipment required to operate them. An improved water husbandry and process control will also substantially reduce water costs and pollution. By demonstrating such - relatively - simple techniques to tanners, the process of introducing new, cleaner technologies will be started. The economic advantages have to be clearly demonstrated, and the technical personnel adequately trained. The awareness raising begins at the plant level - by practical demonstrations, discussions with tanners and their associations and the relevant national authorities.

4. The social dimensions of the programme

The programme will have as one of its results an increased participation of women in various industrial activities (in testing and pollution control laboratories, pilot plants, R & D, specialized consulting companies). As the leather industry expands, jobs will be created - also for women - in the downstream manufacturing sector (shoe making, leather goods manufacturing) which is traditionally very labour intensive. There will be a general up-grading of skills in the industry, resulting in higher incomes and improved job opportunities. In the small family-owned tanneries, jobs will be retained or increase, as their business opportunities will increase due to improved quality, increased production and better living conditions. The tannery pollution control programme will directly benefit the thousands of poor families living around - and many employed within - the tanning zones of the large towns. These people, often living under deplorable conditions directly onto open sewerage or ponds, will have increased income opportunities; more importantly, their sanitary conditions will improve due to proper effluent treatment, piped sewerage and clean water supply. In short, the poorer segments of the populations living around tanneries and from the income generated in the tanneries, the small-scale tanners and their families as well as the skilled and unskilled labourers of many medium and large tanneries in the region will all benefit from improved living conditions and income increases.

5. ORGANISATION AND AREAS OF RESPONSIBILITY OF REGIONAL ASIA TANNERY POLLUTION CONTROL PROGRAMME (US/RAS/92/120)



6. CURRENT FUNDING SITUATION FOR REGIONAL ASIA
TANNERY POLLUTION CONTROL PROGRAMME (US/RAS/92/120)

Project No and Cost in US\$ (excl. 13% support costs)	Title	Status
PHASE I:		
<u>USRAS92/120</u> (1,766,700 \$)	<u>Assistance in Pollution Control in the Tanning Industry in South-East Asia (Umbrella Project)</u>	<u>NET and DEN are seriously considering co-financing the project; A scaled-down version has been prepared.</u>
USINS92/120 (1,223,000 \$)	Assistance in pollution Control in two selected Areas of Indonesia	SWI has confirmed a contribution of US\$ 700,000
USTHA/92/120 (993,000 \$)	Establishment of tannery sludge handling facilities and pollution control laboratories at Samut Prakarn	DEN has indicated they are seriously considering funding
USSRL/92/120 (1,241,000 \$)	Assistance in establishment of a common wet processing facility.	BEL have expressed their interest
USNEP/92/120 (617,000 \$)	Plant rehabilitation and establishment of a effluent treatment facilities at the Bansbari Leather and Shoe Factory BLSF) Kathmandu	FIN has retained its commitment to finance the project
USIND90244 (1,357,965 \$)	Assistance in treatment of tannery effluents, Tamil Nadu	Project is ongoing and funded by SWI. Likely to be regional HQ for the programme
Total Phase I: 7,198,665 \$		
PHASE II:		
<u>USRAS92/120</u> Phase II	<u>Assistance in Pollution Control in the Tanning Industry in South-East Asia</u>	
USPAK/92/120 (483,000 \$) (Preparatory Assistance)	K.I.T.E Common Effluent Treatment Plant	Funding is unlikely at this stage since no donor has expressed specific interest
US/BCD/92/120 (483,000 \$)	Establishment of a Common Effluent Treatment Plant at Hazaribagh, Dhaka	BGD Government has decided to relocate tanneries to the coast. ADB is funding study on the relocation
USCTPR/92/120 (2,228,000 \$)	Assistance in Pollution Control and treatment of tannery wastes in China	Funding is unlikely at this stage, since no donor interested.
Total Phase II: 3,194,000 \$		