FIRE DRILL INDUSTRIAL PLANTS

- As a local counterpart, besides the 6,000 dollars from the Programme, municipal bodies have donated 132 million Colombian pesos to convert the plan into digital format and make it available to the city over a hypertext computer network.

3. Industrial and technological risks

The National Department for Disaster Prevention and Relief has signed a letter of intent for 5,000 dollars with the Local Emergency Committee and the Volunteer Fire Brigade of the city of Cali, for taking an overall inventory of industrial plant vulnerable to seismic activity, allowance being made for the following among other aspects:

- Classification of industry
- Inventory of plant
- Physical whereabouts of the industry, including seismic susceptibility of the ground and plant
- Risk assessment
- Final recommendations.

The criteria being applied for this purpose are:

- Industries handling over 500 gallons of chemical products
- Gas installations with a capacity of 300 lbs.
- Petrol stations
- Fuel depots
- Magazines and munitions dumps

- The relationship between infrastructure (roads, health, hydrants, etc.), housing and industry.

4. Related and complementary activities

Under a consultancy contract, the record of the methods and procedures used in phase I of the project to assess the city's vulnerability and seismic risk, particularly as regards buildings, was summarized (Campos, 1992).

OSSO recently began a study of hazards and risk mitigation for the new town gas network on behalf of Gases de Oriente.

At the request of the City Mayor's office, the Faculty of Engineering at the Universidad del Valle produced a detailed study of vibrations in the stands at the Pascual Guerrero Football Stadium, using recording equipment which OSSO was given under phase I of the programme. This showed that one of the stands had to be strengthened in order to reduce movement which at present, under resonant conditions, exceeds the thresholds of human behaviour. The necessary reinforcement work will begin soon.

The Colombian Security Council and DNPAD have promoted the application of UNEP's APELL (awareness and preparedness for emergencies at local level) methodology by businesses in the Yumbo industrial district. In the process, there was a leak of chlorine gas from an industrial plant and an appropriate response was mounted, including the precautionary evacuation of a large segment of the population living round about.

The Universidad del Valle (OSSO) produced a report on the characteristics of the city's vital services, in particular the water mains, sewage and energy (OSSO, 1992), partly as a result of an agreement between OSSO and DNPAD.

It is hoped to commence work under the Seismically Resistant Construction Training Programme soon.

- **Water main and sewage system management**. A detailed study of the ground at the Puerto Mallarino treatment plant, with a view to evaluating the potential for soil liquefaction. Use of piles to anchor the ground for the extensions currently under way at the plant. Relaying of sewage networks with larger diameter pipes and better quality material (replacement of masonry channels with concrete piping and rubber joints, for example).
- **Energy management**. Burial of some distribution lines to replace overhead lines. Expansion and construction of substations. Expansion of local transmission networks to improve system redundancy. Provision of equipment to minimize service down-times.
- **Telephone management**. Conduct of soil studies and structural analysis for the oldest telephone exchanges and those handling the largest numbers of lines. Procurement of three mobile generator units to provide power for telephone equipment in the event of an emergency. Procurement of switching and radio transmission equipment for use if strategic installations go out of commission. Installation of a second line to carry long-distance national and international calls. Telecom plans to instal a second transit exchange for communications between Cali, the rest of the country and the rest of the world ●