Skilled technical labor for the Dung Quất Industrial Zone (IZ) is now a tough problem. According to opinions of leadership of the Dung Quất IZ's Management Board, the most challenging is not capital, technique, but human resource for this zone. The Dung Quất IZ is requiring tens of thousands of skilled workers and hundreds of thousand in the future. The case is causing a wide gap in current local supply of labor.

In addition to the oil refinery, more 10 industrial parks will take shape such as: ship building and repair, oil rig assemble, drilling equipment, light industry, electronics, metallurgy, food processing, mechanical assemble, production of building materials; steel rolling plant capable of producing 1.4-1.2 million tonnes. The total investment capital is estimated at US\$2 billion in the early stage.

The project of Dung Quất IZ is of large scale,

boring provinces from Đà Nẵng to Khánh Hòa have not been trained, especially in engineering. Moreover the central region's underdeveloped economy cannot create abundant sources of technical workers for its industrialization. Its purely agricultural feature is also an obstacle to the process. Thus, the urgency of highly qualified workers for the Dung Quất IZ is a challenge to the region. Moreover petrochemical workers is very scarce here. Thus, how to train thousands of petrowhen the oil refinery come into operation in the next four years, the problem is more serious in the the region's current condition.

Along with Oil Refinery No.1, other industrial parks will take shape, causing services such as: hotels, restaurants, tourism...and attracting hundreds of thousands of laborers. Consequently, solutions to satisfy all demands for labor are very pressing.

One of shortcomings in training is its methods and results are not compat-

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The problem of technical labor for Dung Quat IZ is extremely hard, and needs fast effective solutions. It has many variables that have strong effects on the regional socioeconnomic life, so a proportionate and harmonious development policy is a must.

1. Outline of Dung Quất IZ

The project of Dung Quất IZ has undergone research and development (R&D) stages after it was approved by the Prime Decision Minister's 207/TTg on April 11, 1996. It is an industrial complex, including numerous economic sectors on an area of 4,000 hectares. It is striking that Oil Refinery No 1 with capacity of 6.5 million tonnes per year will be set up. Also, a deep-water port capable of receiving 50,000-150,000 DWT vessels easily and independently from tides or dredging will be built. plays a strategic role, especially important in the Central industrialization, modernization. The project will open up a new direction of development, extremely significant to the national oil industry, making preconditions for next plans to go smooth.

2. Labor force for Dung Quất IZ - a potential, essential and challenging demand

In its early phase, the Dung Quất IZ requires around 15,000 technical workers who are highly qualified, upon completion of phase 1, 40,000 workers will be needed. In the future, Dung Quất IZ and neighboring industrial parks (IPs) will have 500,000 jobs waiting for workers. Such a potential demand is really a puzzle. So there should be situational and strategic solutions right now.

The most difficult is 92.6 % of laborers of neigh-

chemical workers from now to 2000 is an overloading task to the region.

In the meantime, the training has just began from 1996 in the Technique College under the Đà Nẵng University and in-service courses in Quảng Ngãi Province. According to the report of Prof.Dr. Lê Như Mai, the University of Geology and Mining (at the international workshop entitled "Dung Quất Project's socio-economic impacts on the Central Vietnam" held in Đà Nẵng from March 31 to April 2), since 1996, the University of Geology and Mining has opened in-service courses in petrochemical technology to supply workers to the Dung Quất IZ. The courses involve exploitation of oil and gas, mining, drilling and oil rig and so on. As a result, to obtain sufficient employees for Oil Refinery No.1 is a tough problem. In addition,

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ible with the society's requirements. This leads to the fact that workers cannot fulfil their tasks although they have been trained and many wastes of time and energy.

The above situation requires effective solutions to creating human resources for the Dung Quất IZ.

3. Feasible solutions

The region currently has 29 secondary vocational schools, 8 colleges and hundreds of vocational establishments, mainly in Dà Nẵng City. The secondary vocational education obtains 900 teachers and 10,000 students; colleges, 1,500 teachers and 9,000 students; vocational establishments with 30,000 trainees. These training centers can meet part of the region's requirements socio-economic develoment.

Based on the Dung

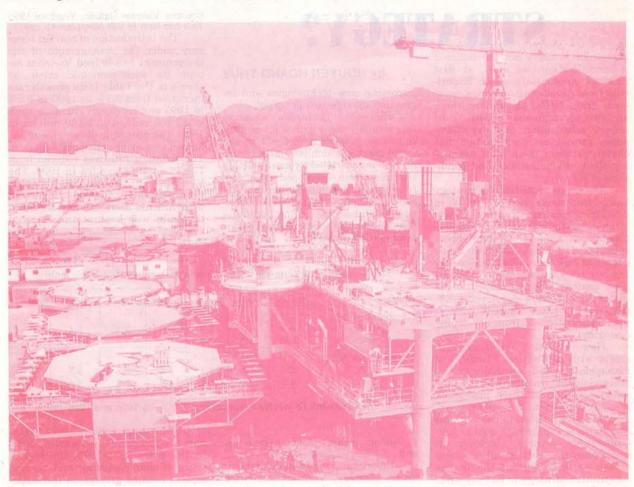
Quất IZ's need for labor and the reality of training in central provinces, we would like to put forward some measures to solve the problem.

- Building facilities for existing training centers to expand their size and targets; paying full attention to training technical labor for the region. derstand practical needs. As a result, the graduates also know how to adopt themselves to their future work and they will fulfil their tasks and avoid wastes of time and energy in training.

Due to features of the Dung Quất IZ, the problem of human resource will encounter many troubles as on developing an army of teachers with high qualifications in the industries of petrochemistry, drilling, oilrig...in order to establish a high-quality petrochemical training center. Also, they should set up a training center right in the Dung Quat IZ so that the graduates can be offered jobs in accordance with the

ernments should boost training skilled workers and overcome the shortage of labor as soon as possible.

- Employing workers in accordance with their ability and tasks; giving them more and more incentives and opportunities of promotion so that they work well; by doing this, we can save the costs of



- Developing teaching staff; giving them as many incentives as possible in order to help them devote their energy to training; making favorable conditions for their research to improve their skill in teaching.

- Matching education with practical requirements of socio-economic development; this task aims to reach two targets: helping students firmly grasp knowledge and skill trained in schools, and un-

follows:

- The training of petrochemical workers is in the embryonic phase. In the central region, the petrochemical training has just been initiated in the Technique College under the Đà Năng University since the schoolyear from 1996 to 1997.

- The facilities, teachers, textbooks, etc. for training is too deficient to reach desired targets.

The regional authorities should focus its energy

IZ's requirements.

- Expanding international relations and investments to attract modern technology, educational experience and grey matter from developed countries to serve the region's industrialization.

- Along with international cooperation in the training sector, the region should call for foreign investments in the petrochemical industry and others. Based on these favorable conditions, local gov-

training and prevent wastes in training.

The issue of technical manpower for the Dung Quát Zone is really a puzzle to the region. But with assistances of the whole country, the central provinces will step by step settle it. The industrialization, modernization is the only way to help the region catch up with other localities, in which the Dung Quát IZ is a breakthrough