

# Business Briefs

## South Asia

### Iran, India study new gas pipeline network

Iranian Foreign Minister Kamal Kharazzi said that "an Indian delegation is expected to visit Tehran to study the possibility of laying a gas pipeline grid to India," and to finalize a liquid gas purchase, in an interview with the Iranian News Agency on Feb. 26. The interview followed meetings with Indian officials at the tenth Indo-Iranian economic commission meeting, where a memorandum of understanding was finalized which includes plans for cooperation in energy, the transport of oil and gas from Iran to India, and construction of an oil refinery. "India will be needing a lot of fuel in the future, and therefore this is a sound basis for Tehran-New Delhi ties," Kharazzi said.

Kharazzi said that "laying of the gas pipeline grid through the Indian Ocean seems to be the most practical plan, which would require minimum cost and involve limited forms of technology." Unfortunately, this is a departure from sound economic development based on earlier plans for cooperation in the New Silk Road, which included Pakistan. Three years ago, proposals were discussed by Iran, Pakistan, and India to build pipelines from Iran to India through Pakistan, as well as oil refineries and natural gas-related industries near the pipelines in Pakistan, but they were undermined by Indian-Pakistani conflicts.

It is unclear whether currently improving relations between India and Pakistan might revive the original plans. "Laying a gas pipeline grid through Pakistan would need the sanction of the three nations as a second possibility under study," Kharazzi said.

## Science

### Speed of light 'slowed' in new state of matter

A team at the Rowland Institute for Science in Cambridge, Massachusetts, and Harvard University, headed by Danish physicist Dr. Lene Vestergaard Hau, has succeeded in reducing the speed of light from 186,000 miles

per second to 56 feet per second (38 miles per hour), according to various news accounts on Feb. 18.

Hau and her team accomplished this feat by shooting a laser through extremely cold sodium atoms, which worked like "optical molasses" to slow the light. The sodium gas was cooled to only a few millionths of a degree Kelvin above absolute zero, creating a new state of matter, known as a Bose-Einstein condensate, in which the individual atoms are forced to overlap and merge into "superatoms." This makes the gas as opaque as a block of lead, according to Hau. "We have really created an optical medium with crazy, bizarre properties," she told Associated Press.

The generation of slow light has many potential practical applications, such as the generation of more efficient optical switches for computers based on light instead of electricity, optical communications systems, and new types of television displays and night-vision devices, but by far the most significant is that it portends a host of new types of physical interactions that may be generated in this new state of matter.

## Infrastructure

### ECO urges Kazakstan rail link to Turkey

Directors of economic planning from the nine Economic Cooperation Organization (ECO) members (the Central Asian Republics, Turkey, Iran, Pakistan, and Afghanistan), meeting in Istanbul, Turkey on Feb. 23, called for opening the rail line between Kazakstan and Turkey to international travel. "Work should begin on opening the Almaty-Tashkent-Tehran-Istanbul Asia Transit railway to international public transportation," they said. ECO also foresees cooperation in banking, finance, agriculture, industry, science, culture, commerce, transportation, and energy.

Meanwhile, Turkish Prime Minister Bulent Ecevit is committed to a major upgrade of Turkey's rail system, complementing earlier administrations' efforts to build new dams, the Turkish daily *Milliyet* reported on March 3. Under Ecevit's direction, the Ankara-Istanbul and Antalya-Alanya rail proj-

ects have moved back to the front burner. Tenders for feasibility studies for the Ankara-Istanbul project, originally proposed in the 1970s, were put out in January, and 18 Turkish and international firms have responded. Tender offers are also being put out for the 120-kilometer Antalya-Alanya line along Turkey's south-central Mediterranean coast.

In February, Japanese Overseas Investment and Financing Organization representatives visited Ankara to discuss both projects. It has also proposed a financing package for a tunnel under the Bosphorus, and a subway system in Marmara.

Turkish diplomatic sources have emphasized that the government plans to use the arrest of Kurdish Workers Party (PKK) leader Abdullah Ocalan to reiterate that terrorism in southeast Anatolia is primarily a result of miserable economic conditions, and that international interests concerned about the Kurds should help Turkey develop the region, including rail, water, and other infrastructure.

## Nuclear Energy

### Ukraine considers ambitious expansion

Ukraine wants to expand its nuclear power capacities and considers nuclear power key to energy independence, Radio Free Europe reported on Feb. 23. First Deputy Minister for Energy and Chairman of the State Department for Nuclear Energy Mikhail Umanets has presented an ambitious plan to upgrade the country's nuclear power industry. At the moment, there are 11 nuclear power plants in operation, which supply 46% of electricity demand. According to the plan, this share will be increased to more than 50%. Ukraine has large uranium reserves but no oil or natural gas, and coal-fired power plants and old coal mines are creating a lot of problems.

Umanets said that the state-owned nuclear concern Minergo is looking for a new type of nuclear reactor, which must meet international safety standards, use Ukrainian resources, and solve the problem of storing spent fuel. According to Umanets, such a Western-style reactor should go into opera-

**IRANIAN** President Seyyed Mohammad Khatami on Feb. 23 told students who had won science prizes in international competition, that “scientific development is not the product of economic and political development, rather, political and economic development are based on scientific progress.”

**HONGKONG** and Shanghai Bank Holdings PLC, the London parent of the Hongkong and Shanghai Bank tied to the drug trade, has signed to acquire a 70% share of Seoulbank for \$700 million. This is a fire-sale price. Seoulbank is one of the largest banks in Korea, and had 292 branches in Korea at the end of 1998.

**BURUNDI** has concluded a \$700 million deal with a Canadian-Australian firm to develop the Musongati nickel deposit, with an estimated 18 million tons one of the three largest in the world. In 1993, the Energy and Mines Minister of the elected government of Melchior Ndadaye was one of the first targets of dictator Pierre Buyoya’s assassination squads, because he had cancelled such a project with a Commonwealth firm.

**LEVI-STRAUSS**, the jeans-maker giant, said on Feb. 22 that it will lay off one-third of its American workforce (nearly 6,000 workers) and close half of its U.S. plants, supposedly because of the relatively high cost of doing business in the United States.

**MICHEL CAMDESSUS**, the Managing Director of the International Monetary Fund, speaking at the Foreign Policy Association in New York on Feb. 25, expressed confidence that the “worst is over” in the global financial crisis. After a similar statement by an IMF official in August 1997, the situation immediately grew worse.

**IRAN** has reportedly secured a \$900 million loan, arranged in part by France’s *Crédit Agricole*, to develop the South Pars gas field, according to the *Middle East Economic Survey*.

tion by 2012, and then could replace the Chernobyl-type reactors. Negotiations have started with Siemens, Framatome, and Westinghouse.

Russian Atomic Energy Ministry Deputy Minister Bulat Nigmatullin is quoted in the report, that construction of a new Russian nuclear reactor could offer Ukraine many advantages. Several components for Russian VVER reactors (completely different from the Chernobyl-type) are already being produced in Ukraine, including electrical transformers at Zaporozhe, turbines at Khartov, and pumps at Sumy.

More immediately, Ukraine hopes that the European Bank for Reconstruction and Development will approve a \$190 million loan in March, to complete the nuclear reactors at Rivne and Khmelnytsky.

Meanwhile, some 15,000 nuclear power plant workers took part in demonstrations in February, to protest wages that are \$15 million in arrears.

## Science Policy

### China urges museums to proliferate knowledge

Chinese Vice Premier Li Lanqing, who is responsible for education policy, said during a visit to Beijing’s science and technology museum in February, that science and technology museums must become centers for the proliferation of scientific knowledge among the population. The Beijing museum was founded in 1988 and has seen the number of visitors increase by 20% per year. In 1997, it received 700,000 visitors. In 1996, the State Council decided to expand the museum by some 4,000 square meters.

In a seminar with educators, scientists, and museum officials, Li emphasized that the cultivation of qualified scientists and technicians is an integral part of the policy of “rejuvenation through science and technology” adapted by the party and People’s Congress. He called for science museums across the country to be developed into bases for science education for Chinese students. He encouraged the museums to cooperate with each other, and to exhibit foreign technology that was on the “cutting edge.” He also encouraged Chinese enterprises to dis-

play the results of their technological research.

Also in February, during a visit to Shenzhen, China’s Prime Minister Zhu Rongji called on that city to become a “science and technology city of the future,” and to cooperate closely with Hong Kong to develop high technology. Shenzhen was one of the very first special economic zones of China. The *South China Morning Post* quoted one source as saying, “Zhu said Shenzhen was right to gradually shift from an economy based on services to one anchored upon science and technology.”

Zhu said, “Shenzhen should become a center for research and development as well as manufacturing of high-tech products. It should be a hub for absorbing know-how from abroad and it can also become a center for marketing new inventions.”

A document released by the Guangdong Communist Party and the provincial government on Feb. 21 called for improving economic relations among Guangdong province, Hong Kong, and Macau, and for development of agriculture, high-technology, and science.

## South Africa

### Debt relief, employment needed, says bishop

Debt relief is needed for South Africa, Anglican Archbishop Njongkulu Ndungane said on Feb. 17. The budget just released by South African Finance Minister Trevor Manuel does not translate into making a discernible difference to unemployed or poor people, he said. Such people are still bearing the brunt of South Africa’s huge national debt burden.

Ndungane said he was deeply distressed that the interest repayment continued to siphon off invaluable resources from the country, impeding reconstruction and development. He called upon the government to establish a task force to examine how to relieve the debt burden. He called for special workers’ brigades to build infrastructure, whereby the workers would not only be employed but would also build the country.