

Business Briefs

Africa

Millions in East Africa facing starvation

Millions of people in East Africa face hunger and starvation, the U. N. Food and Agriculture Organization (FAO) warned in its latest Africa report.

Just in the Horn of Africa, 4.7 million tons of grain are needed to prevent a human catastrophe. This is double the amount of food aid that was needed last year; but instead, less food aid is available internationally.

In Burundi, the food situation is "critical"; in Tanzania, the situation is worrisome; in Uganda, people are already starving; in Angola, the food situation is "bad"; and in Malawi, the survival of 3 million people depends on food aid, the FAO said.

The FAO appealed to the international community to act immediately and in a coordinated way, and to offer proposals for an "immediate, coordinated, and broad-scale relief action on how to reconstruct agriculture as well." On a long-term perspective, the constant crisis in Africa will only be overcome if productivity and production in general are significantly geared up.

Science

New method found for producing hard X-rays

A team of scientists at the University of Illinois in Chicago led by Charles K. Rhodes has discovered a means of producing "gigantic" amounts of energy in the form of hard (short wavelength) X-rays, according to their article and a commentary by Bernd Crasemann in the British magazine *Nature*, the Aug. 25 *New York Times* reported.

Rhodes's team bombards clusters of xenon atoms with intense ultraviolet radiation. This causes the outer electrons to oscillate coherently, transferring a large amount of energy to the inner electrons, knocking several of these tightly bound inner electrons out. In ef-

fect, the electron shells are hollowed out; in the familiar form of ionization, it is the outer electrons that are removed. When other electrons rush in to fill the inner void, they emit extremely energetic X-rays. These X-rays are also coherent and could possibly be harnessed to build an X-ray laser at wavelengths shorter than are available today. (Soft X-ray imaging devices were developed over the past decade by the Princeton Plasma Physics Laboratory, Lawrence Livermore National Laboratory, and other groups.)

The ability to image a very small object is limited by the wavelength of the light being used, which must be smaller than the dimensions of the object. Rhodes says that a hard X-ray laser would "implement a new form of biological seeing, one that would reveal heretofore unseen biological processes that ripple through the living world."

Energy

Chad-Cameroon oil pipeline under way

A consortium of oil companies, including Anglo-Dutch Shell, Esso, and the French Elf Aquitaine, have undertaken the construction of a 1,500-kilometer pipeline from the landlocked Central African state of Chad to Cameroon. The pipeline, which will stretch from the Dabo oil fields in the Touboro region to the Atlantic seaport of Kribi in the south of Cameroon, will cost about \$2 billion and will take approximately two years to construct. Sources in Paris say the World Bank will provide 50% of the funds for the pipeline, while a group of American banks will provide the rest.

The final agreement on the project was arrived at during a visit to Yaounde, Cameroon by Chad military leader Idriss Derby on July 15. Work is expected to start in 1996. Engineering multinationals such as Canada's Lavalin International and the French groups Bouygues, Spie, Batignottes, and Technip are lobbying to get the construction contracts.

Cameroon hopes the pipeline and the ancillary industries that will grow out of the Kribi deep-seaport area will create about 2,000 jobs.

Chad's oil reserves are estimated at about 200 million tons and could produce 2 million barrels a day for 20 years. The Chadians are hopeful that the completion of the pipeline in five years will help alleviate their country's excruciating poverty.

The Chadian oil reserves, some of which are already being exploited at Sedigi, have engendered most of the 14-year-old strife that has aggravated Chad's poverty. Deposed President Hissene Habre is alleged to have met his ouster because he signed a contract with Exxon for oil exploitation without consulting France, which considers Chad in its sphere of influence. This time, Elf Aquitaine succeeded in securing 20% of the deal.

President Paul Biya of Cameroon reportedly linked his acceptance of the pipeline to a guarantee from Chad that it will stop the flow of arms fueling a bloody tribal war in northern Cameroon between the Kotokos and the Arab Chaos.

Medicine

Nutrient may be linked to HIV, AIDS treatment

Scientists at the University of Georgia suggest that a protein produced by HIV, the virus which causes AIDS, depletes the body of selenium, an essential trace element. In a paper in the Aug. 19 issue of the *Journal of Medical Chemistry*, the authors predict that HIV contains heretofore unknown genes, some of which make the selenium-based amino acid selenocysteine. Based on similarities to a known activator-repressor gene of another virus, they speculate that one of the unknown HIV genes produces a protein that could act to repress HIV transcription, and selenocysteine is a component of the proposed repressor protein. According to the theory, when an infected cell has been depleted of selenium and the repressor protein can no longer be produced, the HIV is triggered to replicate and spread the infection. Thus, an adequate level of selenium in the diet may delay the onset of AIDS.

At this point these concepts are hypothetical and further experiments are needed to

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prove the existence of the genes. However, these findings "could have significant implications for genetic approaches to the treatment of AIDS because they open up the possibility of creating artificial repressors or boosting the synthesis of the natural repressor," said E. Will Taylor in *Chemical and Engineering News*. Taylor headed the research team at the Computational Center for Molecular Structure and Design and chairs the university's Department of Medicinal Chemistry.

While based on what Taylor terms "theoretical and circumstantial evidence," the work could help to explain why some HIV-positive individuals do not develop AIDS symptoms for long periods of time and why many of those most susceptible to AIDS tend to be malnourished.

Infrastructure

China announces major water diversion project

China announced over the weekend of Aug. 20-21 a multibillion-dollar water-diversion project, to bring water from the south of China to water-scarce northern areas, BBC reported.

Details were not given, but BBC noted that southern China has been repeatedly hit by floods, while the North has been hit by drought. Poor infrastructure is blamed for severe water crises, which are affecting at least 27 Chinese provinces, including Anhui, Hubei, and Szechuan. Often, the water is not drinkable and peasants are desperate to get water for irrigation.

Devastating flooding is also underscoring a lack of flood control investment. So far this year, 1,400 people have died, and there has been over \$6 billion in flood losses, the official *China Daily* reported on Aug. 10. Beijing blames the infrastructure deficit on local authorities, who are responsible for local flood control, while praising the central government's role in controlling the major rivers, including the large-scale dam projects now in the works. The small and medium-sized cities most affected by floods are accused of ignoring "government warnings to prioritize flood control." Economic czar Zhu Rongji said, "It is necessary to set aside enough funds for urban

flood control even at the expense of cutting back on some capital construction projects."

Meanwhile, China has announced plans to issue stock to pay for the Three Gorges Dam. Beijing has been using the profits from the Gezhouba Dam, the largest dam and power complex in China, to pay for the Three Gorges construction. Gezhouba, whose profits were about \$250 million last year, will be made into a joint-stock company and the shares will be floated on Wall Street.

Ukraine

Air Force may be sold to pay for Russian gas

Under the threat of new Russian gas supply cutoffs and slowdowns, Ukraine is considering selling part of its Air Force as "payment in kind" for its debts to Russia on gas deliveries made earlier this year, according to statements on Aug. 24 by Ukrainian Defense Minister Gen. Vitali Radetski. The deal may involve fighters, fighter-bombers, and long-range bombers.

Sources report that this "debt for equity" arrangement was cooked up by Ukraine President Leonid Kuchma. Since taking office on July 19, Kuchma has been weakening Ukraine by moving to accommodate Moscow in its push for a "Slavic Union" among Russia, Ukraine, and Belarus, and by moving to reach an agreement with the International Monetary Fund. On July 11, the day his election victory was confirmed, Kuchma was on the phone with IMF Managing Director Michel Camdessus. One week later, he met Camdessus in Kiev. Since Aug. 15, an IMF delegation has been in Kiev negotiating an economic pact with the Kuchma regime.

In addition, speculator George Soros and Swedish shock therapy advocate Anders Åslund are planning to "help" Kuchma, the Aug. 24 Swedish business paper *Dagens Industri* reported. Åslund became notorious as an adviser to the Russian government in implementing shock therapy. Now, Åslund says: "George Soros is financing my mission in Ukraine and the international staff which I now am putting together in . . . Kiev."

● **UNEMPLOYMENT** in OECD nations has reached 35 million, the highest since 1930, according to a report by the International Labor Organization. The ILO states that this crisis cannot be solved by market forces, but the measures offered by the ILO are limited to calls for labor market deregulation, free trade, some forms of "market stimulus," and foreign exchange stability.

● **INDONESIA** plans to build 12 nuclear power plants of 600-megawatts each over the next 25 years, according to the Aug. 10 *Wall Street Journal*. Construction of the first plant is to begin on Java island in May 1996; electricity production is scheduled to start in 2004.

● **JEFFREY SACHS** peddled his lunacy in Beijing in late August. China's reforms are "most successful," he told the Aug. 20 *China Daily*, due to the "millions of people . . . working diligently and earning low wages," providing China with a "reliable labor force." Sachs urged that most state industries be shut down.

● **MEXICO** Central Bank head Miguel Mancera rejected the idea of setting up derivatives markets as part of Mexico's financial opening. "There is great deficiency in the areas of regulation and financial supervision in Mexico and other countries," he said.

● **GERMAN** bankruptcies are expected to rise from 15,000 in 1993 (a 20% and 44% increase over 1992 in western and eastern Germany, respectively) to 18-20,000 cases in 1994, the head of the German federal association for small and medium-sized business said on Aug. 23. The 1993 cases cost 200,000 jobs and cost creditors DM 18 billion (\$11 billion).

● **AN UNKNOWN VIRUS** which causes paralysis of the body is responsible for two deaths in South Africa, Agence France Press reported on Aug. 26. Seven other patients, who have been put in quarantine, are in critical condition.