

# Water, water, everywhere

## And the atom can make it drinkable

Are we all going to run short of water? This is a question to which Europeans severely give a thought, accustomed as they are to the idea that fresh-water supplies are only a problem to dwellers in the most arid regions of the world. Yet it was on behalf of the temperate lands, where no one has ever died of thirst, that President Johnson recently uttered a resounding warning.

Nor was this the first; back in March 1965, President Johnson was asking the US Congress for a supplementary appropriation of \$200 million to be spent over seven years, to speed up research on the desalting of sea-water, which had been started in 1961 on the strength of an already substantial Federal allocation of \$75 million designed to get those studies off the ground. The Americans have concentrated on the setting up of large nuclear power-plants capable of fulfilling the dual role of supplying enough electric power and drinking water to meet the requirements of industrial cities.

Nor enough notice has been taken, perhaps, of the agreement on July 17, 1965, between the USA and the USSR to cooperate on this subject: the Russians have been studying desalination for a long time and have even started building a prototype fast-neutron "hydro-electro-nuclear" station on the Caspian Sea to come into operation by 1969. The USA has signed other agreements for international cooperation, notably with Israel and Mexico; the latter agreement was extended, in October 1965, to include participation by the International Atomic Energy Agency, UNO's nuclear branch which centralizes all the information passed to it by some of its hundred-odd member countries actively interested in this crucial subject. Then again, UNESCO has launched an International Hydrological Decade.

The fact is that a number of industrialized countries — including the United States and, in Europe, Great Britain and Belgium as well as the Mediterranean countries — are already facing a disquieting situation. New York has already experienced a summer shortage of water, and while California has to dam up the run-off waters that cause catastrophic floods, the water reserves of the southern states are on the way to exhaustion.

A few figures: water consumption in the developed countries is over 500 litres (110 Imperial gallons) per person per day, and that is only for domestic needs. Industry is also a heavy consumer; it takes 275,000 litres (61,000 gals.) of water to produce one metric ton of steel, 3,000 litres (670 gals.) to refine 150 litres (33 gals.) of petroleum, 20 litres (4½ gals.) to manufacture one litre (¼ pint) of sulphuric acid. It is no accident that the demands for water and for energy are growing at comparable rates — doubling every 15-20 years.

If public opinion has not yet realized the gravity and the imminence of the danger, this is because water above all things appears to be the inexhaustible element, if only because it "droppeth as the gentle rain from heaven". And the sea, after all, covers nearly three quarters of our planet. In volume, it fills more than 250 million cubic miles! One would think this mass ought to be enough, since annual human consumption is at present only one millionth of this. The trouble is, however, that

ocean waters contain, on average, nearly one ounce of salt per pint, and far less than one-hundredth of the total world supply of water circulates salt-free on or in land above sea-level.

If a water shortage threatens the progress and life of the temperate countries, it forms an even more formidable obstacle, together with power shortage, to the development of the rest of the world; merely from the agricultural standpoint, a substantial proportion of the arid land (which covers 60% of the continental areas) could be fertilized by irrigation. To quote Saint-Exupéry, we may recall the page in *Terre des Hommes* where a nomad chief of the Sahara, accustomed to finding in the desert no more than sparse water-holes, often bleakish, is fascinated by the power and beauty of the torrent, and scandalized by the waste of this pure and, to his eyes, priceless water.

The desalting of sea-water has been known about for years, and there are some 50 industrial plants scattered through the world which daily produce tens of thousands of gallons of fresh water — at Kuwait in Arabia, at Elath in Israel, at Gibraltar, in Guernsey, on the Californian coast, and elsewhere. But these small desalting units are rarely profitable, with large power plants, on the other hand (and it is known that the nuclear industry's technical and economic progress is beginning to give the big atomic power plants a lead over the units burning conventional fuel) the price of water could be brought down to about 2d. per 100 gallons, on condition that these plants supplied electricity at the same time. A projected power station of this kind at Gabès in southern Tunisia provides for additional profitability through the construction of a fertilizer factory and a plant for liquefying natural gas. Furthermore, with the enormous quantities of fresh water produced, it would be possible to irrigate an extensive belt of crops around the industrial complex.

The factor of size, and hence of profitability conferred by the atom is so advantageous that already many projects for dual-purpose nuclear power plants, to produce fresh water and electricity, are under study or even being built. In the State of New York, a small 2.5 MWe prototype reactor, financed by subsidies, has been ordered, and news has been announced of the construction, on an artificial island south of Los Angeles, of a nuclear desalinating plant capable of supplying over 150 million gallons of water a day, at one-twentieth of the price for water from present desalinating plants. In Florida there are plans for a nuclear power plant of the same kind, which would produce five million gallons a day in 1972. The United Arab Republic is considering setting up a nuclear installation of the same fresh-water capacity, near Alexandria. Chile, Mexico, Peru and India are engaged on consultations or studies to the same end. The nuclear industry in the European Community may be well placed in the world market for nuclear desalination; the Euratom Commission has, in fact, been studying an ORGEL power plant for desalination and electricity production. This would make for a very valuable export of Community equipment, pending the day when it is used to quench Europe's own thirst.



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# Community newsbriefs

## No Council agreement on Kennedy mandate

Two Common Market Council of Ministers meetings took place in parallel in Brussels on November 24. While the Secretaries of State for Foreign Affairs started on Kennedy Round problems, the Ministers of Agriculture tackled state aids to farming, which have to be brought under a Community regulation. Then the two groups went into joint session to try to agree on negotiating directives in the Kennedy Round for the Commission for the last group of agricultural products for which the Community has still to present its position: sugar, vegetable fats and oils, herrings and tuna fish, and tobacco. The offers drafted by the Commission proved in many cases to go further than member states are willing to accept, and decisions were put off to the next council session on December 6. On that date the Foreign Ministers will have before them a further draft mandate for the Community's negotiations with Austria.

## THE ECONOMY

### Buoyant forecast for 1967

A recovery in the rate of growth of the Community economy in 1966 is confirmed by the Common Market Commission. Compared with a growth in the six countries' joint gross product of 5.8% in 1964 and 4.1% in 1965, the Commission now expects that final calculations for the current year will show a rise of 4-5% in real terms. This same rate of growth is also forecast for next year.

This year's result is attributable mainly to sharp recoveries in France and Italy, whose growth rates have risen from 3.4% in 1965 in both countries to 5.5% in France and 5% in Italy this year. The other countries have largely maintained their position, with the exception of Germany, whose gross national product is estimated as having risen only by 3.5% this year, against 4.6% in 1965 and 6.6% in 1964. France and Italy are also expected to take the lead in 1967, when Germany is forecast staging a recovery, though the Netherlands' rate of growth is expected to slow down again.

The forecasts for 1967 are based upon the conclusion that internal demand in the Community will about maintain itself, even though export demand may be less buoyant, especially in the United States. As for the United Kingdom, the Commission notes that the real growth in the gross national product is likely to be only 1% at most, while a temporary fall during the course of the year cannot be excluded. So the removal of the import surcharge

is likely to do little to stimulate imports from the Six. Other industrial countries are likely to continue to increase moderately their purchases from the Community. Developing countries are expected to be in a better position to trade, their reserves having picked up and their own exports being expected to expand in the coming months.

On the Community's interior front, the Commission observes that investment will remain the principal element influencing economic trends. The overall rate is expected to remain at about the 1966 level, though there may well be variations from one member country to another. "A considerable expansion" is thus expected in France and Italy, though Germany is likely to experience a slowing down in investment, at least until the spring, when a recovery could develop. In the Netherlands a downturn is likely, and for Belgium and Luxembourg a moderate expansion is forecast. Except in Germany, a sharp expansion in public authorities' current expenditures is expected, attaining at least a 10% expansion compared with the 1966 figures. Overall Community private consumption is expected to maintain its 1966 rate of expansion into 1967, and the rise in prices is expected to be less marked. On average, private consumption is expected to rise by 4.2% next year, but France and Italy are expected to show a more pronounced rise than the average, with Germany, Belgium and Luxembourg below the average, at least in the beginning of the year. In the Netherlands, tax cuts should encourage consumption.

The Commission's own conclusion from these various economic pointers is that the member governments should not prematurely abandon their stabilization policies or adopt more expansionist policies than those carried out so far. Indeed, in those countries - Germany, the Netherlands, Belgium and, to some extent, Luxembourg - where inflationary trends have been most in evidence, the Commission advises the governments to reinforce their stabilization policies. In France and Italy, government policies should be directed at controlling the current economic recovery, the Commission suggests.

## INTEGRATION

### Budget request trimmed

The Council of Ministers cut by \$6 million to \$610 million the budget for 1967 requested by the Common Market Commission, mainly by reducing the vote for providing additional staff for the Commission. The decision was taken by weighted majority vote, with France voting in the minority, except for that on the financing of the Agricultural Fund.

As a result of the trimming of the administrative budget request the Commission will get only 80 new A Grade officials, against the 133 requested, who were mainly required to administer the common agricultural policy, the vote for which makes up the bulk of the Commission's budget. In 1967 \$537.4 million is being provided, an increase of 7.8% over 1966. This vote accords with the sum the Commission proposed, as does the vote for the European Social Fund, which goes up by 6% to \$273 million.

Commission President Hallstein expressed his colleagues' disappointment at the Council's rejection of the administrative budget proposed. The additional staff which could not be taken on, he said, would be "not even the bare minimum required".

## Eliminating double taxation in the Six

Community countries' government tax directors met in Brussels on November 8-9 to consult with the Common Market Commission about problems of double taxation in the Common Market. The Six agreed that a multilateral convention should be drawn up to save Community citizens being taxed more than once if their work or business spans one or more frontiers, but the precise consequences of the multilateral nature of this agreement are not yet clear (bilateral agreements on double taxation are common). The meeting was able, on the basis of preliminary work carried out by experts, to agree on a number of problems, such as the definition of the notion of fixed establishment, the treatment of dividends paid by parent and subsidiary companies, licensing rights, interest payments, etc.

## Ensuring fruit and vegetables of quality

Further steps to protect Community consumers of fruit and vegetables were taken during November with the adoption by the Council of Ministers of a new regulation governing the marketing of these products in the Community.

The regulation establishes quality controls down to the retail level - retailers will be required to show the quality, category, variety and origin of fruit and vegetables - and for the first time applies to Community-grown produce.

From January 1, 1967, cauliflower, tomatoes, apples, pear, peaches, citrus fruits and table grapes, and from January 1, 1968, lettuce, blanched chicory, endives, onions, apricots, plums, spinach, peas, beans, carrots, artichokes, cherries and strawberries will be subject to the Community quality standards.

The regulation provides also for the rules on low quality, variety and origin are to be indicated, spot checks and penalties are to be applied by the member states, and on the limited number of exceptions (e.g. products sent to packing plants or for growers' personal use).

## First product wholly under common policy

Olive oil is the first agricultural product to come entirely under the Community's common farm policy. On November 19 this product came fully under the common marketing rules.

On November 8 the Commission adopted the 1966-67 reference prices for sweet oranges at levels slightly lower than for the previous year. Imported oranges are classified according to their relation to the three types of Community-grown oranges, and are subject to compensatory charges to protect Community growers.

## EXTERNAL AFFAIRS

### EFTA call for wider Community

The International EFTA Action Committee, composed of leading business, political and trade-union figures in the member and associate countries of the European Free Trade Association, has called on all EFTA and Community governments to do all they can to facilitate entry into the Community for all EFTA countries which wish it and for associate membership for the remainder.

This statement, which also calls for the removal of non-tariff barriers to trade between the EFTA countries and supports the idea of a European technological community, declares:

"It was the unanimous view of the committee that the new British approach (to the Community) is of paramount importance for the unity of Europe. It is the future of Europe which is at stake, and not merely the application of one country to join the European Economic Community. With this in mind, the committee urges that all EFTA and EEC governments should do everything in their power to ensure that this initiative results in a successful conclusion, which would mean full membership of the European Economic Community for those member countries of EFTA which wish to join, and close association with the Community for the other EFTA countries. With this aim, the committee expects governments to approach these discussions with the will to create the basis for a truly united Europe by strengthening the European Economic Community and its institutions, through the inclusion of all EFTA countries."