

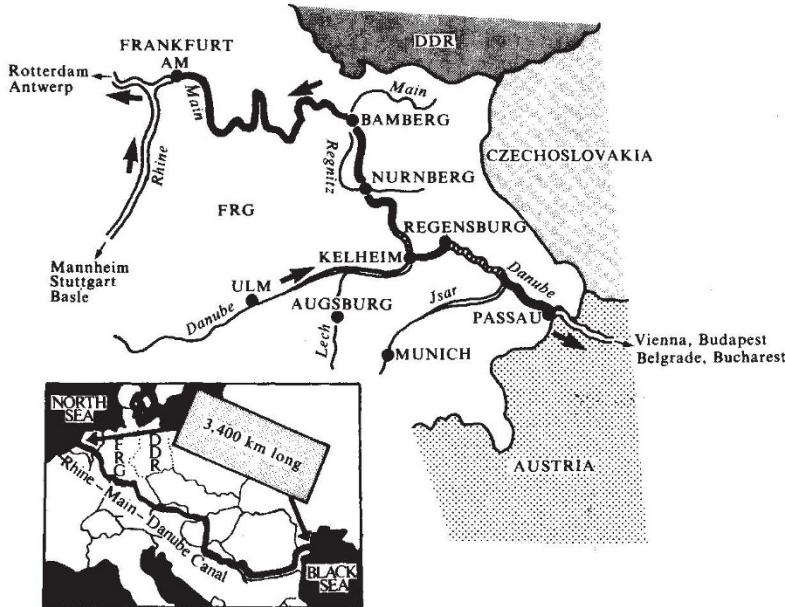
West German waterways

Canal in limbo

Heidelberg

Of the 3,500 km of waterway linking the North Sea to the Black Sea, only 55 km of the Rhine–Main–Danube Canal and 59 km of canalization on the Danube are still incomplete. However, as the work forges on, money is tighter, and controversy about the impact of the canal increases.

The first attempt to conquer the European watershed by joining the Rhine to the Danube dates back to Charlemagne. But it was not until 1855 that, under Bavarian King Ludwig I, a 15-m wide canal with 100 locks was opened. This never competed successfully with the railways and the last 120-ton barge passed through in 1945. Contracts from 1921 and from the 1960s commit the federal government to two-thirds and Bavaria to one-third of the costs of the present canal from Bamberg on the



Main to Kelheim on the Danube.

Even by 1976, estimates showed that on each deutschemark invested, the profit would be only 50 pfennig. Total German water freight is in any case falling off: estimates for the canal were 14 million tonnes per year in 1969 and now stand at 3 million tonnes per year. Most of this would otherwise go by the *Bundesbahn*, which is predicted to lose DM60–120 million per year. Worse, German national carriers could face competition from state-subsidized East Europeans not only on the new waterway, but also in the crucial Rhine system. Furthermore, north German seaports could suffer when the canal links Austria, Hungary, Bulgaria and Romania directly to the Rhine delta.

Bavaria considers the project essential to combat local unemployment and underdevelopment and that the DM 3,150 million already invested should not be jeopardized. However, the DM 1,750 million for completing construction and the DM 12

million per year for running the canal might benefit the area more if spent differently. More jobs could be lost in farming and tourism than are created by the canal.

The plans also involve pumping water at 15 m³ per second up from the Danube to flush out the severely polluted Regnitz and Main and provide cooling water for the four new power plants planned for the Main valley. Without the canal, a DM 500 million pipeline would be needed. But, integrated energy planning and improved waste treatment could meet these needs.

To the 55-m width of the canal will be added a huge parallel service area which in places will carpet the valleys of the Altmühl and Sulz from wall to wall. After canalization the Danube will deepen its bed, lower the water table and drain surrounding wetlands. These vast landscape changes are the target of mounting environmentalist attack. The Altmühl valley and the wetlands north of the Sulz and east of Regensburg are not only exceptionally

beautiful, but also contain internationally significant biotopes. The destruction of the migrant wintering and resting grounds, the habitats of 46 endangered bird species and 13 endangered fish species, is contrary to the spirit of both Bavarian and federal laws framed in the 1970s to protect fast dwindling wildlife resources.

These serious environmental objections apart, the hard core of the current controversy is economic. In September 1981, while West German Chancellor Helmut Schmidt reassured Kreisky that work on the canal would continue, federal transport minister Hauff, on the strength of his latest reviews, was talking about "the dumbest project since the Tower of Babel". In January the cabinet instructed Hauff to ask the Bavarian Administration for talks about halting or reducing the scheme. Bavaria is holding firmly to its contracts, but Hauff and Strauss will meet this month. Meanwhile, there is nothing in the federal kitty for next year. **Sarah Tooz**

Kew Gardens

Changes ahead

In the cold climate of recession, the Royal Botanic Gardens at Kew in Surrey continue to flourish. Today (13 May) the Queen will re-open the Temperate House after a 5-year renovation programme costing £1.6 million. Building of this vast glasshouse, designed by Decimus Burton for the 3,000 different types of plant from the warm, temperate regions of the world, began in 1860.

The Royal Botanical Gardens may themselves soon undergo a historic restructuring. Since 1903, the institution has been part of the UK Ministry of Agriculture, Fisheries and Food (MAFF) but now talks are being held between officials from the ministry and Kew Gardens to transfer management to a body of trustees. Organizations with an interest in the gardens have been asked to submit their views by 21 May.

The change to trustee status would be largely managerial — the gardens would continue to be sponsored by MAFF. But this arrangement would permit a degree of administrative autonomy the lack of which has irritated past directors of Kew. The new board of trustees, many of whom would be scientists, would take decisions on the direction and development of policy. In April, Mr Peter Walker, Minister of Agriculture, Fisheries and Food, told the House of Commons that the present arrangements "are not ideally suited to the management of an institution which combines the functions of curation, research, advice and instruction and public amenity". At present the director, Professor Arthur Bell, is advised by a 12-strong Scientific Advisory Committee drawn mainly from university botany departments. Members of the Forestry Commission and the National Trust sit on a consultative panel at Wakehurst Place, the satellite garden in Sussex.

Kew Gardens have not experienced cuts as such but staff has been reduced through natural wastage from 480 in 1979 to the present level of 440 — a rate which compares with cutbacks at the ministry itself. Total running costs are £6 million, of which £3 million is accounted for by salaries.

Like London Zoo, Kew is a blend of scientific institution and tourist attraction. With an entrance fee of only 10 pence, and over 1 million visitors a year, however, the gardens could not survive without exchequer support. Some 3,100 genera of 340 families are represented in the living collections at Kew, and there are 5 million dried specimens in the herbarium. The physiology section at Wakehurst Place now incorporates a seed bank. But the aesthetic way of displaying plants of scientific and economic interest may obscure the extensive scientific work that the institution performs. **Jane Wynn**