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REPORT

drawn up on behalf of the Committee on Regional Policy
and Regional Planning

on the importance of water resources for the growth and
development of certain regions of the Community

Rapporteur : Mr Jaak VANDEMEULEBROUCKE

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At its sitting of 13 November 1984 the European Parliament referred the motion for a resolution tabled by Mrs Fullet on the importance of water resources as a factor for growth and regional development in certain regions of the Community (Doc. 2-899/84) pursuant to Rule 47 of the Rules of Procedure to the Committee on Regional Policy and Regional Planning as the committee responsible and to the Committee on Budgets for an opinion.

At its meeting of 23 November 1984 the committee decided to draw up a report and appointed Mr Vandemeulebroucke rapporteur.

The committee considered the draft report at its meetings of 26 April 1985, 24 May 1985 and 20 June 1985. At the last meeting it unanimously adopted the motion for a resolution as a whole.

The following took part in the vote: Mr DE PASQUALE, chairman; Mr DUCARME, vice-chairman deputizing for the rapporteur, Mr VANDEMEULEBROUCKE; Mr NEWMAN, vice-chairman; Mr AVGERINOS, Mr BEAZLEY, chairman; Mrs BOOT, Mr CHANTERIE (deputizing for Mr GIUMMARRA), Mr FATOUS (deputizing for Mr GADIOUX), Mr GERONTOPOLOUS (deputizing for Mr LAMBRIAS), Mr HAPPART (deputizing for Mr GRIFFITHS), Mr HUTTON, Mr POETSCHKI, Mr VERNIER (deputizing for Mr BARRETT).

The Committee on Budgets has decided not to deliver an opinion.

The report was tabled on 25 June 1985.

The deadline for tabling amendments will be indicated in the draft agenda for the part-session at which the report is considered.

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The Committee on Regional Policy and Regional Planning hereby submits to the European Parliament the following motion for a resolution together with explanatory statement:

MOTION FOR A RESOLUTION

on the importance of water resources for the growth and development of certain regions of the Community.

The European Parliament,

- having regard to the motion for a resolution tabled by Mrs FUILLET on the importance of water resources for growth and regional development in certain regions of the Community (Doc. 2-889/84);
- having regard to the motion for a resolution tabled by Mrs BLOCH von BLOTTNITZ on the problem of water supplies in the Community (Doc. 2-1576/84);
- having regard to the motion for a resolution tabled by Mr CHANTERIE on the importance of groundwater supplies for industrial purposes in certain regions of the Community (Doc. 2-1664/84);
- having regard to the report of the Committee on Regional Policy and Regional Planning (Doc. A2-69/85);

A. Whereas the question of the importance of water resources (surface water, groundwater and internal water) for growth and development in certain regions of the Community is so closely bound up with other aspects of economic development that it should be treated as part of a coherent and, where appropriate, cross-border approach formulated at regional level;

B. Whereas water resources are of great importance for the establishment of certain industries and the groundwater level of aquifers of which industry makes use in certain regions of the Community has fallen so low that the resulting deterioration in the quality of groundwater is putting certain industries into a weaker competitive position;

- C. Whereas water resources are of great importance for certain agricultural areas (irrigation, reforestation etc.);
 - D. Whereas an improvement in water supplies, particularly in the Mediterranean regions, could lead to an increase in agricultural production;
 - E. Whereas it is necessary for the development of certain regions to promote the use of water power;
 - F. Having regard to Council Regulations Nos. 2618/80 and 218/84, which deal with hydroelectric power in conjunction with the development of alternative energy sources;
 - G. Noting that certain urban areas and tourist centres have large water requirements;
 - H. Whereas (drinking) water supplies in the Member States are being increasingly jeopardized by the steadily increasing pollution of surface water and the gradual pollution of groundwater;
 - I. Drawing attention to the survey of groundwater resources in the Community carried out on behalf of the Commission and to the Commission study on the water supply situation in Sicily (XI/44483);
 - J. Whereas the Council directive of 15 July 1980 on the quality of water for human consumption has still not been incorporated into national legislation in the Federal Republic of Germany, Italy, Luxembourg and the Netherlands, and whereas not all of the Member States fully incorporated into their national legislation, by the prescribed deadline, a number of other directives on the protection of surface water.
1. Requests the Commission to set up a data bank on water resources at Community level, on the basis of which a list of useful projects can be drawn up, implemented and monitored;

2. Requests the Commission to draw up development measures relating to water supplies which lead to the creation of jobs and enable savings to be made in the long term and requests that such measures should be preceded by an environmental impact assessment and a cost benefit analysis;
3. Considers that regional development programmes must provide for a thorough examination of the regional water resources available for the period considered; also requests the Commission, in assessing investment projects, to give priority to ensuring that existing water resources are compatible and consistent with new requirements that will arise;
4. Draws attention to the need for all water supply projects (reservoirs, irrigation canals etc.) to be consistent with a general water management plan; also requests that the Community's contribution should be granted only if it has been established that the project makes provision for all the stages involved in the supply of water, including the distribution network;
5. Welcomes the study carried out on behalf of the Commission on the situation of groundwater resources in the Community and draws attention to the growing problems of water policy in northern, and especially industrialized, regions and requests the Commission to draw up a coordinated policy proposal in this connection in the form of a directive to the Member States;
6. Requests the Commission to draw up, implement and monitor a water programme for certain regions jeopardized by falling ground water levels;
7. Requests the Commission to encourage Member States immediately to draw up and implement measures leading as quickly as possible to a substantial improvement in the quality of surface water and full protection for ground-water;
8. 'Takes the view that it is not enough to stabilize water consumption in certain production processes but that effective reductions must be made (or other sources found, recycling methods used etc.) if future water problems and the consequences thereof are to be avoided;'

9. Is convinced that the reafforestation of vast areas of the Community is essential to safeguard water resources and the ecological balance; urges the Council of Ministers immediately to adopt the proposal on common afforestation measures submitted by the Commission over two years ago and also to provide adequate appropriations;
10. Requests the Commission to treat the problem of the lack of water, in the context of the Integrated Mediterranean Programmes, as an obstacle to the development of the economically weak peripheral regions in the south of the Community;
11. Requests the Commission to deal with the question of energy production through water power in the context of an integrated policy which takes account of the development of other energy sources, in particular the new energy sources;
12. Requests the Commission to make provision, along the lines of the energy projects it supported on the islands of Pantelleria and Tremiti, for combined small-scale projects in the peripheral island regions which alleviate both their water shortages and their energy dependence;
13. Requests the Commission to allocate appropriations from the ERDF and other Community funds for projects and programmes for the introduction of water-saving production processes in certain industrial sectors designed to improve water supplies in certain regions of the Community and the impact thereof on their economic structure;
14. Calls for projects to be thoroughly assessed for their costs and benefits before funding to ensure the best use of European taxpayers' money;
15. Requests its President to forward this resolution to the Commission and the Council.

EXPLANATORY STATEMENTI. Preliminary remarks: water and regional policy

1. The question of the importance of water supplies for the growth and development of certain regions of the Community is so closely bound up with other aspects of economic development (agricultural policy, the allocation of the factors of production, energy and transport) that it should be dealt with as part of an integrated approach formulated at regional level.

2. For the economically weak peripheral regions in the southern part of the European Community and the applicant countries Spain and Portugal the problem of the lack of water as an obstacle to development can best be tackled in the context of the integrated Mediterranean programmes.

The development of these peripheral areas is hampered by a large number of factors, which, moreover, vary from area to area. They include, in particular: the dominant position of the agricultural sector, outmoded methods of production, lack of specialized skills, poor social infrastructure, underdeveloped transport infrastructure and remoteness from the production, consumption and decision-making centres of the Community.

3. The integrated regional policy approach is equally valid for energy production. In accordance with EEC Regulations Nos. 2618/80¹ and 218/84² hydro-electricity should be considered in conjunction with the development of other energy sources, especially the new ones.

II. The water supply question

4. Fresh water is the most important raw material in the world; human life is inconceivable without water. The importance of fresh water for the economic development of human society can be traced back to the beginnings of the history of mankind: settlements could appear only in places where drinking water was available.

¹ OJ No. L 271, 15.10.1980, p. 23

² OJ No. L 27, 31.1.1984, p. 19

For the development of the iron and steel industry and consequently for the beginning of the industrial era water was absolutely essential for the production process and as a mode of transport.

In Europe it is clear to see that all the industrial areas lie in the zones with temperate climates which enjoy an adequate water supply.

5. Fresh water is used in the context of economic development:

- as drinking water for the population,
- for agricultural production,
- for industrial production (for example, 200,000 litres of water are needed to produce 50,000 tonnes of crude steel),
- for the generation of electricity. The availability of adequate energy supplies can be a determining factor for the siting of many industries.

6. In the future, however, bottlenecks must be expected in supplies. At present the per capita consumption/world water reserves ratio is still about 1:10. By the end of this century, however, this ratio is expected to fall to 1:3 or 1:1. A shortage of water is expected to emerge in the industrialized countries.

Water shortages must also be expected in countries where water reserves are as large as those of industrialized countries but which still have some leeway to make up in economic terms, such as some of the Mediterranean countries (in particular Portugal, Spain and Greece).

This danger is all the greater in the countries bordering on the Mediterranean as water supply problems are already occurring which, in the light of the water resources actually available, should not really have occurred at all.

7. The problem of water supply at the moment is not the lack of water, but rather the consequence of irregular rainfall patterns according to area and season, the use made of available water and the lack of planning in the field of water management.

The causes of these problems are to be found both in natural factors, such as topography and climate, and in the action of man.

8. All the countries bordering on the Mediterranean are mountainous. This has the following consequences:

- the population and economic activities (farming and industry) are concentrated in the few low-lying areas. (In Greece, nearly 75% of the population live on about 20% of the territory);
- this also means that water consumption is concentrated in a small number of areas and sometimes exceeds natural reserves;
- available agricultural area must, however, be utilized intensively. In a warm climate this is possible only by means of additional irrigation;
- the mountains are an obstacle to the supply of water from areas where water is abundant to areas with heavy water consumption;
- the risk of drought and water shortages is particularly high in areas lying in the rain-shadow of mountains (e.g. Castile, Andalusia, the Abruzzi valleys).

In addition to topographical characteristics there are also climatological factors. In the Mediterranean countries most rain falls in winter, while in the dry hot summers there is sometimes no rain at all for months on end.

Owing to this irregular supply of water irrigation is impossible during periods when it is most necessary. This irregularity of supply is also a factor of uncertainty for various manufacturing processes, which is a disincentive to the establishment of industries.

9. The effects of unfavourable natural conditions are further intensified in the Mediterranean countries by human activity, including in particular deforestation and overgrazing on mountain slopes. As a result of this floods occur, especially in the spring, and rivers dry up in the summer (e.g. the Guadalquivir). In Spain about 1,000 million tonnes of soil rich in humus are swept into the sea in this way each year. About 13 million hectares of land in Spain are already in an advanced stage of desertification. Another 14 million hectares are exposed to the increasing danger of erosion. Together this amounts to over half of Spain's total surface area.

Deforestation is, together with low rainfall and rapid evaporation, the cause of the low flow rates of rivers in the Mediterranean area.

10. The water supply problem is further complicated by rising consumption and increasing pollution, which makes re-use impossible.

Increasing water consumption is a consequence of:

- population growth,
- increasing individual water consumption. By the end of this century consumption is expected to increase by at least 20 to 30% as a result of improvements in hygiene and the modernisation and mechanisation of households,
- increasing consumption in the agricultural sector,
- growing consumption as a result of increasing industrialisation.

11. One of the sectors of importance for the economies of the Mediterranean countries is tourism. To develop this sector an adequate supply of water (both drinking and bathing water) is necessary. During the holiday season the population of a tourist centre can be multiplied by two to eight (in extreme cases by thirteen).

12. It was pointed out above that the most important problem of Mediterranean countries is not the lack of water but short-comings in the prospection, planning, use and distribution of available reserves. In principle there is enough fresh water available. Every inhabitant in the southern peripheral areas of the Community could have 2,000 m³ of water at his disposal. But in fact, outside the privileged areas there is often scarcely 100 m³ available per inhabitant.

13. The locations of certain industries are entirely determined by the water supply situation, especially in places where the possibility of an adequate flow rate is greatest. Certain regions of the Community, especially in the north, are more dependent on these industries than other regions. Thus for the majority of textile firms specializing in carpets and household textiles, groundwater is a necessary source of supply for the production process.

The level of ground water in aquifers which is used by industry, is rapidly falling in certain northern regions of the Community. The consequent negative quality changes to groundwater and the increase in production costs resulting from the use of much more expensive mains water are thus putting certain industries into a weaker negative position.

III. Development measures

14. In order to guarantee water supplies during periods of drought and to prevent floods in rainy seasons, a number of measures are feasible in areas which qualify for aid from the Regional Fund. These measures are discussed below.

The common feature of all these measures is that their implementation should have a job-creating effect. This applies initially during the investment period but also after completion of the projects in the sectors receiving aid.

15. There is a major risk that ill-considered, hasty measures may disturb the balance of nature and be harmful to flora and fauna. Each measure and each individual project must therefore be preceded by an environmental impact assessment.

River regulation

16. The flooding of rivers in rainy seasons and drying up in the summer is still a common natural occurrence in many areas of the Community.

The most important requirement for limiting the risk of flooding is to prevent precipitations from being rapidly carried downstream. For this purpose, natural basins must, where possible, be restored in the areas where water is in abundant supply and storage lakes must be created as reservoirs. In the Mediterranean area these reservoirs could also serve as a source of irrigation during dry seasons.

Tourism

17. The creation of storage lakes and reforestation will in the medium and long term lead to the appearance of new recreation areas which will not only contribute to diversifying tourist facilities but will also help to ease the strain on the overcrowded holiday centres along the Mediterranean coasts.

IV. Irrigation and diversification of agricultural production

18. An improvement of the water supply situation will primarily lead, especially in the Mediterranean regions, to an increase in agricultural production.

19. Support measures by the Community to improve the income situation in weak regions should therefore be aimed at encouraging irrigation projects which entail better or alternative use of agricultural land.

The more production is diversified, the more positive the long-term effect will be on incomes in the region.

20. Agricultural land which is currently being used to produce the costly surpluses which place a burden on the common agricultural market should be used to produce energy crops and agricultural products of which there is a shortfall.

The cultivation of energy crops

21. The cultivation of energy crops entails savings for the EEC in various areas:

- the creation of new outlets for agriculture may contribute to increasing the limited margin of manoeuvre currently enjoyed by the common agricultural policy;
- the pressure on the EAGGF will also be eased by reducing the cost of export refunds for agricultural products;
- the replacement of imported petroleum products by ethanol and imported soya cake by by-products of ethanol will contribute to improving the Community's trade balance.

Although it is not certain that the price of lead-free ethanol-based petrol will initially be competitive without consumption aid, it is clear from the above that in determining the price account should be taken of the total impact of such a change-over on the Community economy.

22. The European Community should work towards a policy of incentives for the cultivation of energy crops, such as that already applied in the USA which has introduced an environmental policy which forbids the use of lead in motor fuel, a reduction in consumer taxes on 'clean' motor fuels and investment aid for the construction of ethanol-producing factories.

The lack of a similar Community policy has prompted a French and an Italian sugar group to set up a joint undertaking to produce ethanol in the USA (Louisiana).

It is paradoxical that the European agri-foodstuffs industry is implementing a project in the United States which will benefit American farmers when a similar project could equally be carried out in Europe, subject to an appropriate policy, for the benefit of Community agriculture.

Reafforestation

23. Mention must be made of reafforestation as a back-up measure for regulating the water management of the weak regions. This measure, which helps to prevent the drying up of rivers by a slow, steady supply of water and hence to boost reserves of groundwater, has generally speaking received too little attention in Community programmes implemented hitherto. Efforts to achieve economic revival in weak regions must go hand in hand with the restoration of the ecological balance in those regions.

It should also be pointed out that forestry for energy production (short rotation forestry) is extremely labour-intensive.

Aquaculture

24. Fish, and especially freshwater fish, is at present expensive in the European Community and, in many areas around the Mediterranean, a scarce commodity. This is due to both the increasing pollution of the waters and systematic overfishing. The application of aquaculture on the basis of the experimental Atrax project (Greece) must be carefully scrutinized by the Commission.

V. Energy production

25. Energy production must be subject to a regionally integrated approach. The distribution of hydro-electricity is often uneconomic and is not always consistent with the policy of decentralized development and the need to create new jobs. Wave-power plants are not decentralized energy sources either. They require lengthy connections to link them to the network and intensive management.

Hydro-electricity should therefore be approached in conjunction with the development of other energy sources, in particular the new energy sources.

The full range of alternative and/or regenerative technologies will consist of a combination of both large and small-scale water-power programmes, wave and wind power, geothermal heat, hot water from solar energy, photovoltaic and photochemical conversion, conversion of biomass into liquid fuels and gas, heat pumps and tidal dams.

26. While in France and Italy almost all the possibilities of hydraulic generation of energy are in use, there are yet other possibilities in other countries. There is a particularly large unused potential in Greece, which is all the more surprising in that that country possesses scarcely any fossil fuels (coal, oil) and does not yet have any nuclear power stations either. Great difficulties are now arising as regards electricity supply, which have led to high prices and rationing measures.

A disadvantage is that the generation of electricity by conventional waterpower stations clashes with irrigation needs in the summer.

27. The use of biomass, derived chiefly from waste or surplus agricultural or forestry products, as a source of energy is compatible with the reorganization of the use of land.

It is also an activity with which people are familiar in rural areas and creates employment suited to the agricultural regions.

28. The biomass project on the island of Pantelleria demonstrates the varied possible applications of this source of energy. The island's dependence on imported fuels has been removed by the development of domestic gas from biomass and in addition the water shortage has been solved by a desalting plant driven by power supplied by biomass.

On the island of Tremiti the desalination plant set up with Community aid operates on the basis of photovoltaic cells which supply solar energy.

29. The combination of biomass and photovoltaic cells as energy sources is suitable for remote areas and islands where no electricity supply lines exist. They can be used to supply energy for water treatment plants, desalting plants, fire protection, pumps and the operation of sluice-gates used in irrigation projects.

V. Conclusion

30. The Commission is requested to draw up, in cooperation with the Member States, a list of waters in weak Community areas which qualify for the abovementioned measures.

31. In the long term, consideration must be given, in accordance with the recommendation contained in a Commission study on the water supply situation in Sicily (XI/44483) and the survey of groundwater resources in the Community carried out on behalf of the Commission, to setting up a data bank on water resources at Community level.

32. On the basis of this list and after thorough environmental impact assessments, a list of useful projects must then be drawn up.

33. It is clear from the above that the problem of water supplies in the Mediterranean areas cannot be separated from the diversification of agricultural production towards energy crops and from the decentralized application of related small-scale energy projects.

MOTION FOR A RESOLUTION (DOCUMENT 2-899/84)
tabled by Mrs FUILLET
pursuant to Rule 47 of the Rules of Procedure

on the importance of water resources as a factor
for growth and regional development in certain
regions of the Community

The European Parliament,

- A. having regard to the importance of water resources to certain agricultural regions (irrigation, reforestation, etc ...),
 - B. having regard to the importance of water resources to the establishment of certain industries in certain less-favoured regions,
 - C. having regard to the need to promote hydro-electric power for the development of certain regions,
 - D. having regard to the water needs of certain urban areas,
1. Recommends that the Commission consider the problem of water resources in the context of regional planning;
 2. Requests the Commission also to consider ERDF finance for the infra-structures required for regional development;
 3. Instructs its committee responsible to draw up a report on the subject.

