

EUROPEAN STUDIES

teachers' series

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The European Community and the developing countries

The European Community and its member states are a vital focus for developing countries. As a group the Six are the world's largest importers of primary products, and the Community is a rapidly expanding market for these materials. The aid and technical assistance provided by the Community and its member states have an important role to play if the gap between the developing countries in Africa, Asia and Latin America and the rich industrial countries is not to widen. The efforts of the Six so far have made a significant contribution to the attack on world poverty.

Individually and collectively, the Community countries are important aid donors. Apart from Luxembourg, all the member states have independent overseas aid programmes in the form both of special bilateral agreements with recipients and of multilateral channelling of financial and technical assistance via international agencies like the United Nations and the Organization for Economic Co-operation and Development (OECD). All of them contribute to the Community aid programme, focused primarily on Africa. In the last ten years aid from the Community and its member states has increased steadily; measured as a proportion of the donor's national income, aid from the Six is the highest in the world.

The European Economic Community (EEC) was not

designed as an international aid organisation. However, it has never been an inward-looking exclusive bloc, ignoring the needs of the developing countries. During the drafting of the Rome Treaty in 1956-1957, the Six sought means of ensuring that the creation of a *European* customs union should not detract from their responsibilities to their dependent territories and less-developed trading partners. The Six were among the first to give practical expression to the notion that an essential part of development aid is the provision of trade outlets for the developing countries' products. In the last decade, Community trade with Africa, Asia and Latin America has increased greatly in value, to the benefit of the latter, with whom the Six are in deficit, as shown in table 1.

Table 1
Community trade with developing countries, 1958-1967
(in \$ million and per cent increase)

	Imports			Exports			Commercial Balance	
	1958	1967	%	1958	1967	%	1958	1967
Developing countries of which	6,824	11,521	+ 68	6,125	8,295	+ 35	-699	-3,226
AASM ^a	914	1,304	+ 43	712	926	+ 30	-202	- 378
Other African states	1,521	3,165	+108	1,952	2,055	+ 4	+431	-1,100
Latin America	1,647	2,743	+ 66	1,604	2,052	+27	- 43	- 691
Asia	2,582	4,054	+ 57	1,720	2,856	+66	-862	-1,198

^a Associated African states and Madagascar.

Source: *External Trade of the EEC, 1958-1967*, Commission of the European Communities, January 1969.

The Rome Treaty

During the Rome Treaty negotiations, consideration of the Community's potential impact on developing countries was restricted primarily to the dependent territories of the member states. The agreed formula, set out in articles 131-136 of the treaty, set up an association between the Community and the French and Belgian overseas dependencies, Italian Somaliland and Dutch New Guinea. Its aim was "to promote the economic and social development of the countries and territories" and to further the interests and prosperity of the inhabitants. The association established a special preferential trading relationship between the Community and the associates, giving the latter's exports to the Community the same concessions as if they were member states; they granted similar preferences to the Six, with the important proviso that they could retain import duties for revenue purposes or to protect infant industries.

Association: the first convention, 1958-62

A five-year implementing convention attached to the Rome Treaty governed the first five year's operation of the association, and set up a European Development Fund to allocate Community aid to specific projects. Fund aid was additional to the existing nationally financed aid programmes, and there was no reduction in the responsibility of the colonial powers for the well-being of their dependent peoples. The Fund was established as a specialist technical agency, administered by the EEC Commission, to undertake social and economic *infrastructure* investments. These financed projects designed to contribute directly to the welfare of the associated peoples, and to contribute indirectly to their prosperity by providing the necessary infrastructure which enables industrial and agricultural development to take place (see Table 2).

The initial Rome Treaty association helped to foster trade between the associated territories and the EEC as a whole. Even more important, the Fund financed a vast number of projects. Among other things it built 30 secondary schools (with places for 8,000 pupils), 350 hospitals, clinics and bush dispensaries with a total of about 8,500 beds, and 166 technical training centres; it financed the construction of 3,700 miles of roads (over 1,700 miles of them tarred), 240 miles of railway, 18 harbours, over 2,600 village wells and springs, and 54 dams for irrigation projects.

The emancipation of Africa from colonial rule in the late 1950s and early 1960s necessitated a revision of the original association relationship. When the first Convention ended nineteen independent states had taken the place of French, Belgian and Italian dependencies in Africa. Only Guinea chose to end her association relationship; the remaining eighteen¹ wished to maintain their aid and trade links within a revised relationship recognising their new-found sovereignty. The bulk of the Eighteen's trade was with the Community, and they wished to keep their preferential access to the markets of the Six. They also desired a continuation of the European Development Fund with new and expanded capital. One of the great advantages of Community aid was that it could concentrate on fundamental needs, without being influenced by the elements which sometimes play an excessive part in determining national aid programmes. For example, village wells are neither prestigious nor profitable, but they have made an essential contribution to improving living conditions in underdeveloped bush areas of Africa. The European Development Fund has been able to meet this sort of need.

The Yaoundé Convention, 1963

The association was renewed by a second five-year convention signed in Yaoundé, capital of Cameroon, on July 20, 1963. The signatories were the Six of the Community and the eighteen African states.

Trade

The Yaoundé Convention closely followed its predecessor as far as trade was concerned; each Community country continued to remove barriers to imports of goods from the associated countries in exactly the same way as it did for goods from other Community countries. In return, the Eighteen undertook to reduce by 15 per cent annually their tariffs on imports from the Community and to abolish quota restrictions on them; however, they were still able to retain tariffs and quotas for revenue purposes or to protect infant industries. Meanwhile the Community had abolished tariffs on a number of tropical products of particular interest to the Eighteen. Freedom of establishment for firms was also retained, but with the proviso that Community countries must grant similar concessions to the associates.

Aid

The aid provisions of the new Convention were infinitely more supple than the old. The total aid made available for the following five years—from May 1964 to May 1969—increased to \$800 million, of which \$730 million was for the associated countries and the remaining \$70 million for the few territories which still remained dependent. The forms of aid were made much more flexible: in addition to the outright grants which continued to form the bulk (\$680 million) of the aid granted, the Fund was empowered

¹ The eighteen states are: Burundi, Cameroon, Central African Republic, Chad, Congo (Brazzaville), Congo (Kinshasa), Dahomey, Gabon, Ivory Coast, Malagasy, Mali, Mauritania, Niger, Rwanda, Senegal, Somalia, Togo and Upper Volta.

to make special loans up to a total of \$50 million at very low interest rates, and the European Investment Bank to make normal loans up to a total of \$70 million. The Fund was empowered to use its outright grants to lower the interest rates on Investment Bank loans.

In addition to the increase in the amount of joint Community aid, purposes for which the aid could be used were substantially extended. Under the first Association Convention, the Community could finance only basic economic and social projects in the associated countries, and occasionally—but stretching the rules—technical assistance operations. The Yaoundé Convention permitted the financing not only of basic infrastructure projects, and of production projects of value to the whole community (e.g., irrigation, soil preservation), but also of new industries (e.g., for processing agricultural products). It allowed EDF funds to be used to aid farmers by mitigating the effect on them of fluctuations in world prices: the Fund granted credits to stabilization funds in the associated countries when world markets were depressed and was repaid when world prices rose above the average. The Yaoundé Convention also allotted \$230 million to help producers in the associated countries to adapt their production step by step to the requirements of world markets, and to diversify their crop output, thereby easing their dependence on single crops. Two examples of projects financed by Fund loans are the major survey conducted for a slaughterhouse and cold store at Bangui in the Central African Republic, and the construction of an electricity supply station for the Garoua textile mill in Cameroon.

Yaoundé also placed a new stress on technical assistance, allowing the Community to finance regional surveys, technical and economic surveys—of mineral resources, for instance—and to provide experts, funds for training, scholarships, and information and reference material. This enabled much better research and planning to be undertaken before development projects were drawn up and submitted.

The Community's powers under the second Fund to help stabilize prices were particularly important as in most of the associated countries farmers' incomes fluctuate greatly, depending on the harvest and the world level of prices. A bad year can have crippling effects, both on farmers and on the economy as a whole, especially when that economy depends largely on a single cash crop grown for export. Moreover, it was essential to provide a transitional replacement for the French price subsidies which were now to be phased out.

The Fund also has a small emergency budget enabling it to react promptly in the event of a major natural disaster in any of the associated states.

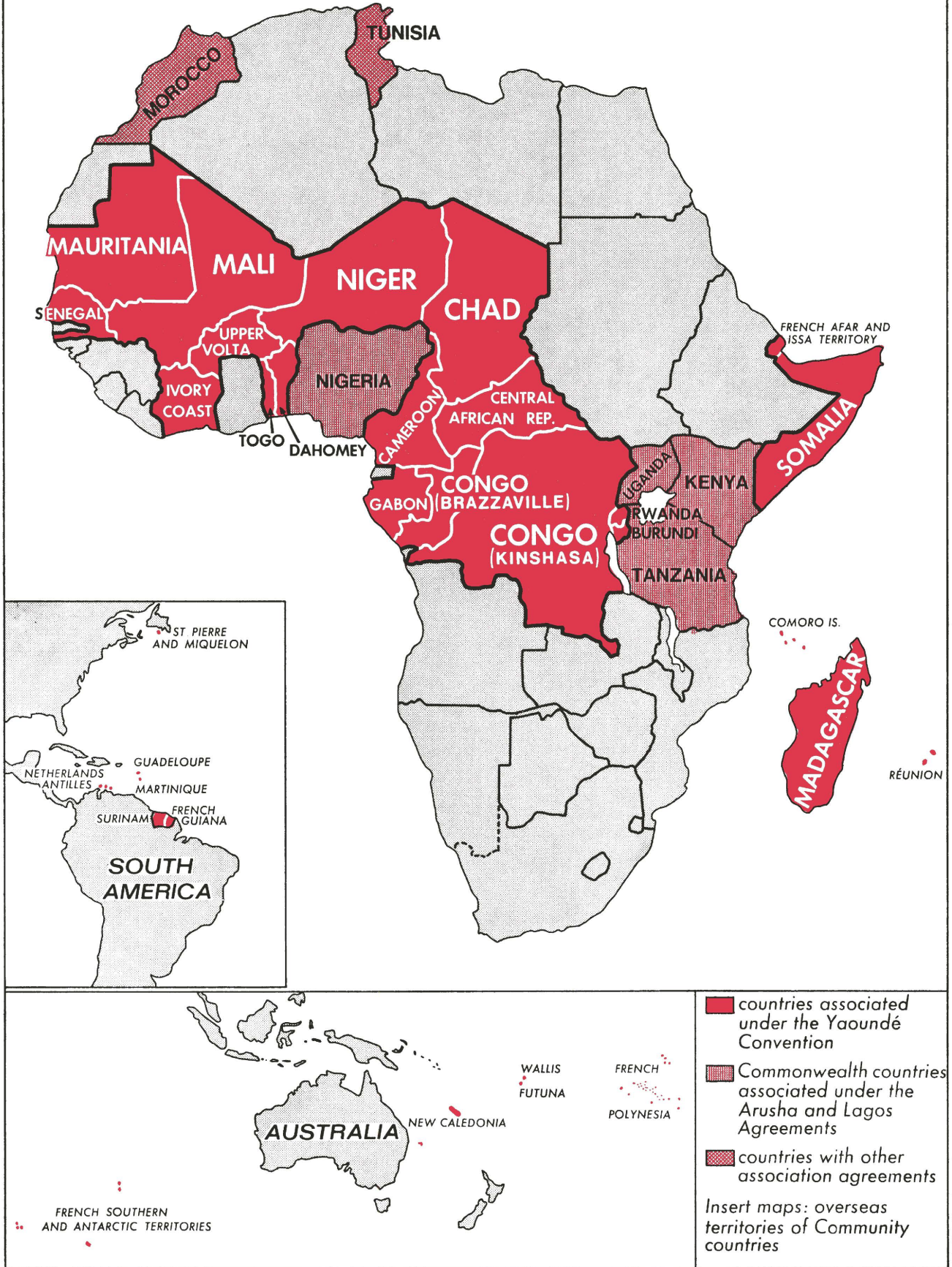
No other national or international body concerned with development aid provides such comprehensive and flexible means of action. To date the European Development Fund has functioned fairly well and largely to the satisfaction of the Eighteen; it is the source of one-fifth of the total foreign assistance which they receive as a group. Some random examples of Fund operations in recent years are \$851,000 for asphalt roads in Mali; \$4 million for coconut plantations in Malagasy; and \$1 million for a campaign against crop-destroying rats in Upper Volta. In addition, many more schools, hospitals and irrigation projects have been undertaken.

The institutions of association

The Yaoundé Convention set up an entirely new set of joint institutions based on equality for the Eighteen at every level. These joint institutions have a say in all problems relating to the Association, whether they concern trade, financial and technical co-operation, or even the aid provided by the Community (though on aid the Community makes the final decision). The institutions are:

— The *Council of Association*, consisting of the Common Market Council of Ministers, the Commission, and one representative each from the associated countries, which meets once a year to survey the broad working of the Convention. The office of chairman of the Council alternates between

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a member of the Common Market Council of Ministers and a member of the Government of one of the associated countries. Detailed day-to-day administration of the Convention is carried out by the Association Committee, made up of one representative from each of the Community countries and the associated countries, and is controlled directly by the Council of Association. The Committee has two joint secretaries—one from the Eighteen and one from the Community.

— The *Parliamentary Conference*, consisting of members of the European Parliament and parliamentarians from the associated countries, which meets once a year.

— The *Court of Arbitration*, consisting of a President appointed by the Council of Association and two nominees each of the Community and the associated countries; the Court settles any disputes that may arise in interpreting or applying the Convention, should the Council fail to agree.

Yaoundé 1969

The first Yaoundé Convention ended in mid-1969. Despite a lack of Dutch and German enthusiasm for a preferential regional arrangement involving mainly African countries with which they have no real links, a new Convention was initialled on June 28. It ensured the renewal of Community development aid, providing for total assistance of \$1,000 million, of which \$810 million will be in the form of outright grants, \$100 million in normal loans from the European Investment Bank, and \$90 million in special low-interest loans.

The 1969 Convention, which runs till January 1975, laid a wholly new stress on African industrialization but abolished the aids to agricultural production and price stabilization which formed a substantial part of the 1963 Convention. In compensation, it increased to \$65 million (\$80 million after three years if this proves insufficient) the sum available to offset any rapid decline in the associates' export income in the event of a sharp fall in commodity prices. To encourage African firms, the Convention gives them a 10-15 per cent price preference over European firms in the awarding of certain development contracts by the new Fund. Finally, it makes aid possibilities even wider by allowing the European Investment Bank to invest in African firms.

Aid to other countries

1. Commonwealth African countries

The Community as such does not provide financial aid outside the context of the Eighteen, although of course the six member states individually provide massive sums. However, a developing country's ability to gain preferential treatment for its exports in a buoyant market makes a major contribution to its development potential. In the light of this consideration, several African countries have sought special access to the Community for key products and some have succeeded in negotiating association agreements with the EEC. These agreements are separate from the Yaoundé Convention and concluded in accordance with article 238 of the Rome treaty. This form of association creates certain preferential trading arrangements for specific products and involves "reciprocal rights and obligations, joint actions and special procedures." So far, the EEC has signed two association agreements with African States—the *Lagos Agreement* of July 1966 with Nigeria, and the *Arusha Agreement* of July 1968 with Kenya, Uganda and Tanzania. Neither agreement contains provision for EEC financial aid, although the four countries involved receive aid direct from some of the Community governments. Neither agreement has come into effect as yet and both in fact expired

simultaneously with the Yaoundé Convention in mid-1969. Because of problems arising from the Nigerian war, Nigeria had not, at the time of writing, requested a renewal or re-negotiation of the Lagos Agreement.

The Arusha Agreement, however, following a request from the three East African states was renewed in July 1969 until January 1975. The renewed agreement provided for substantial liberalization of Community imports of goods from the three countries, and duty-free import quotas for coffee, cloves, and canned pineapple. It did not, however, meet a request from the three for technical aid, as the Commission had not received an additional mandate from the Council to widen its brief; this question was due to be the subject of further negotiations.

2. Tunisia and Morocco

In March 1969 association agreements were also signed with Tunisia and Morocco. Both agreements are for five years and are limited to trade preferences; they do not include multilateral financial aid from the Community.

These agreements are important in demonstrating the Community's willingness to make special concessions for some developing countries in the absence of a world-wide system of trade preferences operated by the industrialised, rich, "have" states in favour of the products of the "have-nots." Nevertheless, it could be argued that such association agreements contravene the rules of the General Agreement of Tariffs and Trade (GATT), by introducing an element of preference or discrimination, providing artificial advantages for some developing countries over their competitors. However, in law at least, the provision for special institutional frameworks regulating their working differentiates these association agreements from simple discriminatory trade agreements, and the Eighteen have made it quite clear in the negotiations for renewal of the Yaoundé Convention that they set great store by the political aspects of association with all their implications of equality.

Table 2
Contributions to the European Development Fund
in \$ million (units of account)

	Rome Treaty Convention	Yaoundé Convention '63	Yaoundé Convention '69
Belgium	70	69	80
Germany	200	246.5	298.5
France	200	246.5	298.5
Italy	40	100	140.6
Luxembourg	1.25	2	2.4
Netherlands	70	66	80
EDF	581.25	730	900
EIB ^a	—	70	100
Total	581.25	800	1,000

^a European Investment Bank.

Allocations by the EDF — 1958/June 1968
in \$ million (units of account)

	First EDF		Second EDF	
Economic infrastructure	290.7	50 %	205.4	38 %
Modernization of agriculture	115.9	20 %	254.1	47 %
Social development	156.6	27 %	59.8	11 %
Miscellaneous	18.1	3 %	20.6	4 %
Total	581.25	100 %	540.0	100 %

Aid from the member states

The total flow of aid (official aid plus private resources) from the Six to less-developed countries in 1968 reached \$4,092 million, which compared with \$5,676 million disbursed by the US and \$845 million by Great Britain.

It is worth noting, *en passant*, that Japan is rapidly becoming a major supplier of aid, providing in 1968 a total flow of \$1,049 million, of which \$507 million was government aid. Also of interest is the fact that, of the \$78 billion received by developing countries in the eight years 1960-1967, \$70 billion came directly from the 16 countries belonging to the DAC (OECD's Development Assistance Committee¹); according to OECD estimates some \$3 billion was disbursed directly by the Communist countries; and a further \$5 billion was channeled through various multilateral agencies (e.g., the United Nations, EDF).

Total "official" (governmental) aid from the EEC and from the six member states to developing countries (including the EDF contributions) amounted to \$1,827 million in 1968, while the United States provided \$3,605 million and Great Britain \$428 million. The Community's official aid has been increasing at a rate of about 2.3 per cent a year—faster than that of any other aid donors. Nevertheless, the Six's national incomes have increased at a faster rate over the same period, and so aid as a proportion of their national incomes has declined. However, this record is relatively good if compared with the other DAC countries.

The United Nations Conference on Trade and Development (UNCTAD) in 1964 set a target of 1 per cent of the national incomes of all "have" states to be devoted to development assistance for the "have-nots." This figure was to include private assistance as well as official governmental aid, and on that basis, four Community countries reached or exceeded this figure in 1967: France—1.65 per cent, Germany—1.62 per cent, Netherlands—1.35 per cent, and Belgium—1.45 per cent. The equivalent figures were 1.06 per cent for the United Kingdom, 0.79 per cent for the United States, and 0.97 per cent for all Development Assistance Committee countries.

The Community's collective aid programmes have not been co-ordinated with the independent overseas development programmes of the member states. The Six as a group, moreover, have made no concerted efforts to harmonize their individual projects. Consequently, there is no common aid policy, coherent philosophy of development assistance, or identifiable trend to suggest that they are working together in a European Community context. Foreign policy, in this case its overseas aid component, remains the jealous preserve of each government.

Whereas European Community aid as such is focussed primarily in Africa, the individual member states' development assistance programmes spread across the Middle East, Africa, Asia and Latin America. The German Government's programme is the most diversified geographically, the main recipients being in the Middle East, Southern Asia, and Africa. France and Belgium tend to concentrate their aid programmes on areas where they have traditionally close links, although in recent years the French Government has stepped up its assistance to Latin America. Italy has her own domestic development problems, and does not provide aid on the same scale as her Community partners; most of her governmental aid goes to Africa and Southern Asia.

¹ The DAC was set up to expand the resources allocated by its member countries to developing countries and to make them more effective. Its members are: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom, United States.

Table 3
Total Aid to less-developed countries 1968

	Total, flow, net (official and private) \$ millions	Official flows, net \$ millions	Outright grants and grant element of loans as % of total official aid	Total flow, as % of national income
Belgium	243	93	97	1.46
France	1,483	855	80	1.65
Germany	1,635	595	63	1.62
Italy	505	150	31	0.88
Netherlands	276	134	84	1.35
The Six, total	4,092	1,827	—	—
United Kingdom	845	428	82	1.06
USA	5,676	3,605	75	0.79

Conclusion

The Eighteen receive more foreign aid per head of population than all other aid-receiving countries. The Community's member states as a group allot a higher proportion of their national incomes to foreign assistance programmes than any other "have" states. Together, these two points would seem to indicate that the Community's record is good.

But is it good enough? The creation of the customs union and the establishment of the common market have generated an intense degree of economic activity within the Community, and between 1958 and 1967 the gross national product per head increased by over 90 per cent. This was one reason why the gap in living standards and wealth between the Community and the developing countries, and indeed between the "haves" and the "have nots" in general, became wider. Individually and collectively, Community countries can make only a partial contribution to this problem. *If a solution exists and if a formula for producing accelerated economic development for the "have nots" can be found, then it will surely require co-operation on a world-wide scale.* Perhaps, when the situation is ripe for a united effort by the rich nations on world problems of underdevelopment, the European Community's experience in multilateral regional aid can make a unique contribution towards solving this urgent problem.

Further reading

- OECD, Development Assistance, 1968 Review.
W. FELD, *The European Common Market and the World* (New Jersey, 1967).
P. N. C. OKIGBO, *Africa and the Common Market* (London, 1967).
A. RIVKIN, *Africa and the European Common Market* (Denver, Colorado, 1966).

Articles

- C. A. COSGROVE, The Common Market and its Colonial Heritage, in *Journal of Contemporary History*, January 1969.
W. FELD, The Association Agreements of the European Communities, in *International Organisation*.
J. J. VAN DER LEE, Relations between EEC and African States, in *African Affairs*, July 1966.
I. W. ZARTMAN, North Africa and the EEC, in *Middle East Journal*, Winter 1968.

Energy in the EEC (I)

Energy is an essential foundation of a modern industrial society; a continuous improvement in agricultural and industrial productivity, a rising standard of living, and the betterment of working conditions in Western Europe depend on regular supplies of energy and the efficient use of energy resources.

We shall examine the energy picture in two papers. In the first the emphasis will be upon the changing structure of the energy sector of the EEC and this will be considered alongside developments in this field in Britain. In the second paper the changing structure will be viewed in the context of the world energy situation and an examination will be made of the implications of the changes in the supply of energy. Industrial location, economic and social growth, and regional development are affected directly by energy supplies. Rapid technological growth in the production and distribution of energy supplies, resulting from international research projects, may quickly alter the pace of industrial change and alter the potential of geographical regions.

A significant series of changes has occurred in the structure of the energy sector of the economies of the six countries, changes which are equally striking in Britain:

- a reduction in the role of coal which has hitherto dominated the energy scene,
- a dramatic growth in the use of oil and natural gas, which are replacing coal, and a consequent rise in the world demand for these fuels,
- a rapid rise in the supply of nuclear energy.

Between 1960 and 1968 the annual increase in the industrial production of the EEC averaged 4.6 per cent. The consumption of energy has reflected this trend, it has the same pattern of a 4.6 per cent annual increase. With the sharp recovery in economic activity in 1968 consumption of energy in the EEC rose by 8.1 per cent—the sharpest increase since 1962-1963. Gross consumption has risen from 467 million t.c.e.¹ in 1960 to 632 million t.c.e. in

¹ t.c.e.: tons of coal equivalent. This is a way of expressing primary fuel input. One ton of oil is taken as equivalent to 1.7 ton of coal and 280 therms of natural gas as equivalent to one ton of coal. Nuclear power and hydro-electricity are equated to the amount of coal needed to produce electricity at the current efficiency of thermal power stations. All Community tonnage figures are in metric tons which are equivalent to 98.5 per cent of an imperial ton.

1967 and 672 million t.c.e. in 1968. In 1968 energy production accounted for approximately 6 per cent of the gross product of the EEC, the percentage varying between the member countries.

Coal

The demand for coal in the EEC fell from 245 million tons in 1960 to 201 million tons in 1968. This fall was particularly rapid after 1964 and this is explained by changes in the demand for energy, and measures taken by the governments of the Six. In the postwar years there has been a series of crises in the national coal industries of the EEC. The difficulties were such that at the end of 1967 the accumulated stocks at the pitheads reached 35.3 million tons which corresponds to the immobilisation of approximately £150 million worth of capital. However there was a steady drop in this total throughout 1968. In Britain since 1963 similar problems have resulted in undistributed end-of-year stocks of coal being maintained at approximately 18-20 million tons.

A small number of sectors—metallurgical industries, thermal power stations and domestic fires—

represent almost three quarters of the EEC's users of coal. In other sectors, various industries, railways and coal gas production, consumption slumped rapidly. In 1967 the consumption of coking coal rose to 64 million tons, of which 46 million tons have been absorbed by the iron and steel industry, which dominates coking activity.

Thermal electric power production is the area of greatest coal consumption. Deliveries of coal to power stations in the EEC rose from 39.8 million tons in 1960 to 49.5 million tons in 1967. In addition 67 million tons of lignite (20 million t.c.e.) were supplied to power stations in 1967. In Britain two-thirds of the coal production is consumed for electricity generation, and over a quarter by domestic and industrial users together.

In recent years, in the EEC and in Britain, there has been a reduction in the use of coal for domestic heating by open fires. In the EEC, consumption fell from 22 million tons in 1960 to 18.2 million tons in 1967. If one adds deliveries to homes of coal mixtures, coke and coal gas, then one gets a total of 40.7 million t.c.e. In addition 11.8 million tons of lignite briquettes were supplied. The reduction in domestic coal use (i.e., in homes) is explained by the competitive prices of other types of fuel, especially oil and natural gas, which are popular for their cleanliness and ease of use as well as for their prices.

Oil

The consumption of oil by the Six increased by about 15 per cent annually between 1960 and 1965, but in 1966-1968 the annual increase varied between 9 and 11 per cent. In 1968 the total consumption reached 347 million tons per year and this represents a third of the international movement of oil. Imports of oil by the Six make up 17 per cent of the total imports of all commodities into the Community from non-member countries. The percentage of oil in the Community consumption of energy increased from 24.6 per cent in 1958 to 55.8 per cent in 1968. These figures indicate the major role which oil now plays in the energy situation of the Community. It is important to notice that the indigenous oil resources of the Community are small. In 1958 the local supplies met 10 per cent of the Community's oil needs; by 1968 the figure had fallen to 5 per cent. This dependence on external supplies poses a strategic problem for the EEC.

Britain produces about 80,000 tons of oil from indigenous oil wells and this represents 1 ton in every 1,000 of her requirements. In 1968 Britain imported 81.7 million tons of crude oil and this makes oil the largest single item in Britain's list of imports. Britain is as vulnerable as the EEC countries in this respect, though the position of oil supplies is currently considered more critical from the balance of payments than the strategic point of view.

Oil resources

The total proven reserves² of oil in the world were estimated in 1967 to be 56.7 thousand million tons. These reserves are distributed unevenly throughout the world: 60 per cent in the Middle East, 20 per cent in the American hemisphere, 9 per cent in the Far East, 8 per cent in Africa, and the remaining 3 per cent in the rest of the world. In the EEC intensive exploration in the last five years has yielded only 216 million tons. This figure is only an addition of 38 million to the 1958 figure. The areas subject to thorough investigation are the continental shelf of the North Sea, Gascony, and the Adriatic littoral.

Table 1 World oil production (million tons)

	1958	1968
Middle East	210	555
N. America	365	500
Venezuela	135	185
Africa	5	175
E. Europe, USSR, China	130	340
EEC	9	14
Other	51	106
World	905	1,875

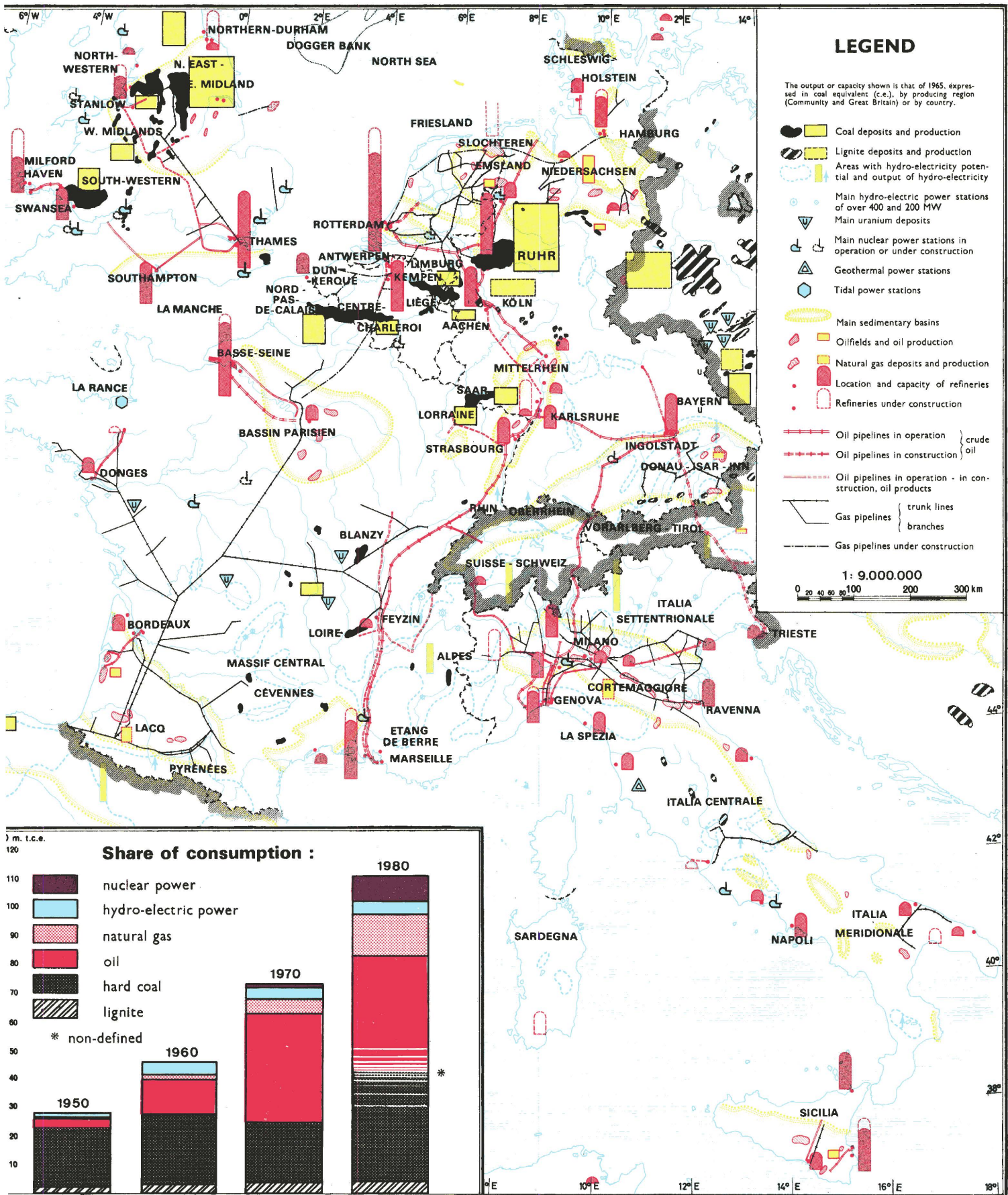
Source: La Conjonction énergétique dans la Communauté, Commission of the European Communities, Feb. 1969.

In order to guarantee oil supplies the six members of the Community have diversified their sources of supply, introducing a more stable supply situation by reducing the effects of a stoppage in the supply from any one source. Whereas in 1958 the Middle East supplied 77 per cent of the Community's oil supplies, in 1967 the figure was 52 per cent. Today North Africa supplies one-third of the Community's oil requirements and increasing amounts are coming from the Far East.

² Proven reserves: these are the amounts which it is possible to exploit given the current state of technology and the prevailing economic conditions.

The European Community

ENERGY



Oil refining

The oil refining industry of the Community has followed the changes in the pattern of fuel consumption. From 90 million tons per year in 1958 the distillation capacity has increased to more than 360 million tons by the end of 1967. Most of the increase was achieved in new refineries. The refining industry supplies finished oil products for export and these exports reduce the balance of payments deficit incurred by the large oil imports. The post-war expansion of the British oil refining industry is equally dramatic. New refineries have been built and some of these are distant from traditional industrial centres.

Gas

Gas appears in energy statistics as primary energy, e.g., natural gas, and as secondary energy, e.g., coal gas. Technically gas can be used as a substitute for the other sources of energy in the production of heat in the domestic and industrial sectors.

Natural gas

Output of natural gas in the Community has been rising rapidly in recent years, reaching 46 million t.c.e. in 1968, or 14 per cent of domestic energy production. Including small imported supplies, natural gas made up 6 per cent of total gross energy consumption. This proportion is expected to double by 1980. The indigenous proven reserves which can be exploited are estimated at 2.8 thousand million t.c.e. and are mainly in the Netherlands.

	Thousand million t.c.e.
Germany	190
France	110
Italy	110
Netherlands	2,000
Total	2,410

Exploration in the continental shelf surrounding Europe should yield more supplies, especially in the North Sea and off the coasts of Italy. These areas are more important than the original source of natural gas which was Algeria. Britain began importing natural gas (methane) from Algeria in 1959.

Manufactured gas

In 1967 the total production of manufactured gas in the EEC was 50 million t.c.e., produced in the following ways:

	Per cent
Factory gas	4.5
Coke-oven gas	33.3
Blast-furnace gas	33.2
Refinery gas	9.4
Methane	19.6
Total	100.0

Nuclear energy

This is seen as the energy source of the future. Research is continuing in the EEC and in Britain to discover the cheapest way of producing electricity from nuclear-power stations. An advantage of using nuclear energy is the reduction in the dependence on foreign supplies of primary energy.

At present seventeen nuclear reactors are in service in the Community with a production capacity of 2,300 kWh. In 1967 they produced 6.8 thousand kWh, which is 1.6 per cent of the total electricity supply. The European Commission has forecast that by 1980 a minimum capacity of 40,000 MWe will be installed, supplying about 25 per cent of total electricity output. By 1970 it is expected that a capacity of 4,000 MWe will be operational, divided between graphite-core reactors (40 per cent), heavy water reactors (40 per cent) and advanced-breeder reactors (20 per cent).

In 1966 10 per cent of Britain's electricity supplies already came from nuclear power stations, and it is expected that this figure will rise to 12 per cent by 1970. The U.K. Atomic Energy Authority has four power stations supplying electricity to the national grid and another nine are operated by regional electricity boards.

Electrical energy

Electricity is, at the same time, a consumer of primary energy and a form of secondary energy.

The consumption of electricity in the EEC has been doubling approximately every ten years: this

increase is the result of the demand for supplies of energy from industries developing rapidly and becoming more elaborate in their energy requirements, and from the demands of domestic users.

The supply of electricity

Electricity production takes up about a quarter of the primary energy supplies of the EEC. About 3 per cent of the Community's electricity supplies are imported from non-member countries, mainly Switzerland and Austria. Supplies equivalent to 1 per cent of total output are supplied between Community countries.

Three-quarters of the supplies come from thermal (coal- and oil-fired) power stations; hydro-electric power provides a quarter of total supplies and small amounts come from nuclear-power and geothermal (hot springs) stations.

Electricity consumption is rising more rapidly than consumption of other forms of energy — about 7 per cent a year — and net consumption is expected to rise from 474,000 million kWh in 1968 to 1,100,000 million kWh in 1980.

Hydro-electricity

This is one of the cheapest forms of electricity but increasing production is limited by the availability of sites which can be economically exploited. In Britain production is confined to Scotland and Wales. In 1949 the area administered by the North of Scotland Hydro-electric Board produced 332 million kWh of electricity. In 1968 the figure was 3,900 million kWh. In the Community, the Alps and Bavaria are the main production areas, with production also in central France, central Italy, Liguria, and central Germany.

Thermal electricity

Thermal power stations may be fed by four types of fuel:

— Coal. Coal continues to play a dominant role in electricity production in the EEC and in Britain for several reasons, including the easy availability of coal supplies and the existence of numerous power stations designed to use coal. Some power stations located on the coast depend on imported supplies of coal.

— Lignite. This fuel is used mainly in Germany. It is cheaper than coal but the exploitable resources are limited.

— Oil. This is used, in spite of the high taxes on it, in oil-fired power stations situated distant from the coalfields or near to the refineries dependent on imported oil. In the Community in 1967 oil-burning stations provided 20 per cent of gross output. Over half the new power stations being built are multi-fired, enabling them to burn more than one type of fuel.

— Natural gas. This can be used to produce electricity but at the present time it is not important for this purpose.

Important progress has been made in improving the methods of producing electricity. The amount of fuel used in 1950 was able to produce 44 per cent more electricity in 1967. An increase in the size of production units has led to reductions in costs.

Nuclear electricity

The role of nuclear power has already been mentioned. In the EEC the production of electricity from nuclear-power stations is still experimental (7,300 million kWh in 1968) but it is possible to say that in the future increasing amounts of cheap electricity will be produced from this source.

Future prospects

Between 1965 and 1980 it is anticipated that the demand for energy in the Community will increase at an annual rate of 4.4 per cent, i.e., it will almost double to reach a figure of 1,100 million t.c.e.

By 1980 it is expected that oil will still be the main source of energy in the EEC. Indigenous oil supplies will produce only 3 to 4 per cent of the total needs; the Community will be more heavily dependent on external supplies than at present. However, the contribution of natural gas will be considerable: by 1980 it is expected that 130,000 million cubic metres will be produced, most of it within the Community. A major development of nuclear power is expected and 25 per cent of the Community's electricity needs will be met from this source.

(A second article will appear in the next issue.)

Bibliography

An Energy Policy for Western Europe, Western European Coal Producers and the NCB, March 1966.
A Fuel Policy for Britain, PEP, 1966.
NCB Annual Report, HMSO, August 1968.
White Papers entitled Fuel Policy, produced annually by HMSO.
Europe and Energy, EEC Information Service.

The European Schools

The ideal which inspires the European Schools is defined by the following words, inscribed on the parchments already sealed into the foundation stones of the Luxembourg, Brussels, Mol, Varese, Karlsruhe and Bergen schools, and which will also be sealed in the other European School buildings.

"In this School, children from Belgium, France, Germany, Italy, the Grand Duchy of Luxembourg, the Netherlands and other countries wishing to build up a united Europe, will be brought together from their first year at school until they are ready for University.

Whilst studying their mother tongue and the literature and history of their native country with teachers of their own nationality, every pupil will at the same time be able to acquire from early childhood the knowledge of other languages and to benefit from the joint contributions of the many cultures which together make up European civilization.

Joining in the same games, grouped in common classes, boys and girls of various nationalities and mother tongues will learn to understand and respect each other and to live together.

Having been brought up together and freed at an early age from the prejudices which separate peoples from each other, initiated into the beauties and merits of the different cultures, they will, as they grow, become conscious of their solidarity. While remaining fond and proud of their native country, they will become Europeans in thought, fully prepared to complete and consolidate the task undertaken by their fathers: the establishment of a united and prosperous Europe."

Origin and development

In the summer of 1952 the European Coal and Steel Community set up its headquarters in Luxembourg, attracting staff from Belgium, France, Germany, Italy and the Netherlands. These officials, faced with the problem of their children's education, formed a Parents' Association to build a school in which children would be educated in their own national culture but also where they could take advantage of the opportunities to get to know children of other nationalities and gain with them a common grounding which would help to make them "European."

This Parents' Association, with the support of the Committee of Presidents of the European Institutions and the agreement of the Luxembourg Government, opened a kindergarten for infants of 4 to 6 years at Easter 1953 and a co-educational five-year primary school in the following October.

It soon became obvious that children from five different countries and speaking four different languages were going to present a complex educational problem but the parents chose to regard this situation more as a challenge than a problem, for here was an opportunity to bring together the children in one school using Dutch, German, French and Italian as the four teaching languages. In June 1954 a group of eminent educationists of the six countries set to work "to lay the foundations of joint education drawing its inspiration from the principles of western humanism, and to work out a

system of teaching which would be the synthesis of the systems found in the countries concerned."

The parents asked that the experiment should be extended to the secondary school level, the then High Authority of the ECSC and the member governments agreed, and in October 1954 the first two classes of the co-educational secondary school were started. This resulted in the governments concerned taking over the European School. By signing the Charter of the European School in 1957, they established the first official intergovernmental school, and endowed Europe with a new type of educational institution.

The success of the European School in Luxembourg led to the establishment of similar schools in Brussels (the seat of the now combined headquarters of the ECSC, the Common Market and Euratom); at the Euratom research centres at Varese-Ispra, in northern Italy; at Geel, fifty miles from the Belgian capital; at Karlsruhe in Germany; and at Bergen, near the Dutch Euratom centre at Petten.

At the beginning of 1969 the total number of pupils had risen to 7,092¹ of whom 970 were in the kindergarten, 3,449 in the primary school and 2,673 in the secondary school.

¹ Brussels 2,281, Luxembourg 1,557, Mol 984, Varese 1,495, Karlsruhe 467, Bergen 308.

Breakdown by nationality: 1,697 Italian; 1,581 German; 1,193 Belgian; 1,077 French; 949 Dutch; 192 Luxembourg; 353 others.

Status of the school

The syllabuses are a synthesis of those in force in Belgium, France, Germany, Italy, Luxembourg, and the Netherlands, so that any pupil entering the school from his own country, or returning to his own country after studying there, will not have any abrupt changes or be at any disadvantage. The syllabuses are to be reviewed from time to time by the Board of Governors who, under the Charter of the European School, are responsible for the administration. The school is financed by the member States and recognised as a State school.² The European Leaving Certificate which qualifies pupils for admission to the universities of the six countries has also been recognised by universities in Austria, Switzerland, Spain, the United Kingdom and the United States.

The primary school

Children are admitted to the kindergarten at the age of four, to the primary school between the ages of five years six months and six years six months, and to the secondary school between the ages of ten years six months and eleven years six months depending on whether they are ready for each next stage.

In each school there are four linguistic sections, for primary and basic instruction is given in the four official languages, Dutch, French, German and Italian, but all pupils are taught according to a unified curriculum and time-table no matter which section they are in.

The pupils have their basic education in their mother tongue but they are also taught a second language, either French or German, by the direct method which becomes a "working language" at the secondary stage for the teaching of certain subjects. This working language is also used from the third year of the primary school for the "European hours" when pupils are grouped in classes, which contain all nationalities for singing, drawing, handicraft and physical education.

In geography, teaching begins with a study of the immediate environment and then there is an introduction to the six countries, each pupil's country of origin being treated in more detail.

The study of history is based on social conditions through the ages with emphasis on characteristic historical figures of the six countries.

Religious and moral instruction are part of the syllabuses and families are free to choose the form for their own child: freedom of religious conviction is respected throughout the activities of the school.

² Children of officials of the European Communities have priority of admission and for them no fees are paid; other children may be admitted for whom fees are as follows per annum: 4,000 BF (£33) for the secondary school; 3,000 BF (£25) for the supplementary school; 2,000 BF (£16) for the primary school; 1,000 BF (£9) from the kindergarten school. Fees are reduced to one half for the second child, and to one quarter for the third and each subsequent child, with a minimum of 500 BF (£4) per child per annum, for those who can afford it. Partial and total exemptions can be granted by the Administration Boards to small-income families.

Primary school time-table

- 1 Subjects taught in mother tongue: 20 hrs.
- 2 Second language: 6 hrs.
- 3 European hours: 6 hrs.
- 4 Religious instruction or moral science: 2 hrs.

The transition from primary school to secondary school

The decision as to when a pupil should transfer from the primary school to the secondary school is made by a Board presided over by a member of the Inspection Committee and including the headmaster, his deputies and the teachers of the last primary year and the first secondary year. If the pupil is not considered to be sufficiently able or diligent for secondary work, or if for some other reason the pupil does not wish to go to the secondary school, in the European School, Luxembourg he can enter the supplementary school ("cours complémentaire") where he continues to work at the basic subjects and his second language, and where, after four years, he will receive the equivalent of the primary education certificate of the different countries, which will permit him to go to a technical school or, in the case of girls, to a domestic science school. In the other European Schools all children go to the first secondary year which is one of observation and orientation. The final short course for the less able is an integral part of the secondary school curriculum, held in the same premises and with "bridging-classes" at various levels to the traditional secondary classes and vice versa. From the third year onwards the pupils are offered several options: a commercial course including typewriting, shorthand and commercial correspondence, and book-keeping; an industrial course for boys, introducing them to practical work in workshops, technology and industrial design; and a domestic science course for girls which includes dressmaking, cooking, and child-care.

A supplementary School Leaving Certificate is given to pupils who pass the school leaving examination.

The secondary school

The seven years of secondary studies are divided into a "general preparatory course" covering the first three years and a more specialised course of four years.

(a) The general preparatory course

The aim of the first year of the secondary school is to consolidate and widen the knowledge acquired in the primary school, and to provide intensive practice in the second or "working" language, for in the second year this is used for the teaching of history and geography. Dutch pupils may have supplementary tuition in French or German from this first year onwards and Belgian pupils whose mother tongue is French are

The European Schools

Unified secondary school time-table (Number of weekly lessons in each subject)

Subjects	General Preparatory Course (first three years)			Latin-Greek Languages section				Latin-Modern Languages section				Latin-Mathematics-Languages section				Modern Languages-Mathematics-Science section				Economics and Social Science section						
	A			B				C				D				E				F						
	I	II	III	IV	V	VI	VII	IV	V	VI	VII	IV	V	VI	VII	IV	V	VI	VII	IV	V	VI	VII	V	VI	VII
Mother tongue	6	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Latin	—	5	5	5	5	4	5	5	5	4	5	5	5	4	4	—	—	—	—	—	—	—	—	—	—	
Greek	—	—	—	5	5	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Philosophy	—	—	—	—	—	2	4	—	—	2	4	—	—	1	2	—	—	1	2	—	—	2	4	—	—	
Law	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	
Social Studies	—	—	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	
1st modern language	7	4	4	3	2	2	2	4	3	3	3	3	2	2	2	4	3	3	3	3	3	3	3	3	3	
2nd modern language ^a	(4)	(4)	(2)	(3)	(2)	(2)	(2)	3	3	3	3	(3)	(2)	(2)	(2)	3	3	3	3	3	3	3	3	3	3	
3rd modern language, English	—	—	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4th modern language, Dutch ^b	(5)	(5)	(4)	(4)	(3)	(3)	(3)	(4)	(3)	(3)	(3)	(4)	(3)	(3)	(3)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
History	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Sociology	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	
Geography	1	1	1	1½	2	1	2	1½	2	1	2	1½	2	1	2	1½	2	1	2	1½	2	1	2	2	1	2
Economic history and geography	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	
Mathematics ^c	4	4	4	3	3	3	3	3	3	3	3	6	7	7	7	6	7	7	7	—	—	—	3	3	3	
Economics	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	3	4	
Biology	2	2	2	—	—	2	—	—	—	2	—	—	—	2	1	—	—	2	1	—	—	2	1	—	2	—
Physics	—	—	—	2	2	1	1	2	2	1	1	2	2	3	4	2	2	3	4	2	2	3	4	2	1	1
Chemistry	—	—	—	—	1½	1½	—	—	1½	1½	—	—	2	1	2	—	2	1	2	—	2	1	2	1½	1½	—
Physical Training	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Drawing	1	1	1	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—
Music	1	1	1	1	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
History of Art	—	—	—	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—	—	—	1	1	1	1
Religion or moral science	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Handicraft	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	31	33	33½	33½	35½	35	32½	32½	34½	34	32½	33	35	36	31½	32	35	36	31½	32	35	36	32½	35½	35

^a For the second modern language the figures given in brackets apply only to pupils of the Dutch section.

^b For Belgian pupils whose mother tongue is French.

^c Including one period of applied geometry for the 5th, 6th and 7th years of the Mathematics-Science and Modern-Language section.



given tuition in Dutch to satisfy the basic legal requirements of their native country.

In the second year too Latin becomes compulsory for all pupils and from the third year every pupil has four hours of English teaching.

(b) The specialised streams

All pupils must choose to enter one of the following:

- (i) Classics section: Latin and Greek as main subjects;
- (ii) Latin-Modern Languages section: Latin together with an additional foreign language (for some pupils this is their third language, and for some Dutch their fourth);
- (iii) Latin-Mathematics-Science section: Latin and a specialised study of mathematics and science but still continuing with at least two foreign languages and with history and geography;
- (iv) Modern Languages-Mathematics-Science section: where Latin is replaced by a third modern language (Italian or Dutch).

In the fifth year the range of optional subjects is increased further by the possibility of choosing:

- (v) the Economics and Social Science section with an emphasis on economics, sociology and modern languages but still taking mathematics and science.

In the last two years Philosophy is a compulsory subject in accordance with the curricula of certain member countries of the Community (see time table).

The curricula of the secondary schools

The syllabuses have been drawn up by experts from member countries so that the ideals and aims of the school shall be fulfilled.

Thus in *literature* great importance is given to the study of the influence exerted on a country by its neighbours, in order that pupils may become aware of Europe's common artistic and intellectual heritage.

In *history* the aim is that the pupils should think of themselves as "Europeans" and to this end a programme (drawn up by an international committee of historians), is taught from the third year in groups of mixed nationalities and in the working language, by a teacher of a nationality other than their own and from a supranational point of view.

Geography is also taught in a new way. From the second year onwards the subject is taught in the working language. During the first four years, the pupils aim at gradually discovering the world, starting from a familiar, concrete base, i.e., their own environment. In the last three years, they once again take up general geography, but this time with the additional study of the world's most important economic areas. When dealing with regional geography, special emphasis is given to the study of the countries of the European Community. The second year course comprises a study of the geographical features of these countries con-

sidered as a whole. Rural and urban population problems, agrarian structures, agricultural production, the geography of the main sources of energy, the main lines of communication and trade are dealt with as a whole as much as possible.

In the seventh year, the study of the European Community countries is taken up again, but with a different aim: this time the object is to study the diversity of the regional areas which make up this part of Europe, and to analyse their differences.

Biology is taught for two hours per week during the three-year general preparatory course. The syllabus also includes zoology and botany, as well as geology in the third year. In the Latin-Greek, Latin-Modern Languages, and Economics and Social Science sections, there is also a biology course in the sixth year (2 hrs.) which includes human anatomy and physiology as well as general biology. In the other two sections, the course lasts until the seventh year (1 hr.) and, in addition to practical work, includes animal and vegetable physiology and anatomy. From the third year onwards, these subjects are taught in the working language, thus enabling pupils to acquire a sound knowledge of the scientific terminology of a foreign language.

Mathematics is given great importance in the European Schools. It is taught for four hours per week during the general preparatory period, and then for three hours per week in the Latin-Greek, Latin-Modern Languages, and Economics and Social Science sections, and six hours a week in the two other sections. Pupils wishing to go to a Polytechnic College can also attend special classes for two terms (2 additional hours) in their seventh year.

Physics is begun in the fourth secondary school year and pupils in all five sections are taught it until they leave the school. The physics teachers' aim is to follow the progress of research while at the same time linking this research with traditional physics; from the growing amount of knowledge, they choose those discoveries which have formative value. It is a compulsory subject for the Baccalaureate examination.

Chemistry is taught in the fifth and sixth years of the Latin-Greek, Latin-Modern Languages and Economics and Social Science sections and in the fifth, sixth and seventh years of the two other sections. The aim of the course is to familiarize pupils with chemistry problems by making them learn about a certain number of characteristic substances. Great importance is attached to practical work.

Modern language teaching. In order to provide for better mutual understanding among pupils of several different nationalities and to allow them access to the roots of each other's national cultures, all opportunities for contact and exchange between the pupils are encouraged in the European School. Modern language teaching, particularly as regards a second, or working language, is extensive. This is done by teaching certain subjects in the working language. Also pupils of any one class, whatever their nationality or mother tongue, join together for physical training and the arts, and in these lessons any language may be used.

The European Baccalaureate

The "European Leaving Certificate" is noteworthy, not only for its validity as a University entrance qualification, but also for the method of examination.

The Examining Board, presided over by a University professor, consists of two, or at most three members from each of the six countries which founded the European Schools. The members are chosen each year by the Board of Governors and must meet the conditions required in their country of origin for appointment as members of an equivalent examining board. There is only one examining board for all languages and the various sections of the secondary school.

The final examination consists of both oral and written tests. The level is that of the seventh year, except for philosophy, where the oral examination covers material studied in both the sixth and seventh year, and all pupils who have attended the European School regularly at least during the two years immediately preceding the examination may enter for it.

In judging candidates, the jury will take into account not only the results of the final examination, but also the last year's school work.

The various results will be weighted in the final Baccalaureate grading in the following proportions:

- (a) a maximum of 100 points for all compositions done during the year;
- (b) a maximum of 120 points for all written tests in the final examination;
- (c) a maximum of 80 points for all oral tests in the final examination.

Needless to say, the tests in the various study sections are not identical. The candidates in the classical section, for example, have written tests in the mother tongue, in the second language, Latin, Greek, philosophy and mathematics. They have oral tests in their mother tongue, in their second language and in two subjects on which they have not had written tests, chosen by lot: geography or history and biology or chemistry.

This type of examination is a compromise between the requirements of each of the six countries, which vary appreciably among themselves. The formula laid down by the Board of Governors of the European

Schools makes it possible to test the knowledge and maturity of the candidates and thus to ensure that the European Baccalaureate diploma is awarded only to young people who have attained the required standards for embarking on higher studies.

Out of 193 entrants, 178 candidates passed the European Baccalaureate examination in 1969.

This was the eleventh year in which pupils in the Luxembourg school had sat the European Baccalaureate, the sixth in Brussels, the fifth in Varese, the third in Mol and the second in Karlsruhe.

The success of the European Schools

There can be no doubt that the ideals which are inscribed on the parchments buried in the foundation stones of all schools have been realised, and even exceeded. The first Parents' Association at Luxembourg was only concerned in the beginning with their own children who would be "... at school until they are ready for university," and they thought in terms only of the traditional elitist education. Now there are, however, in the European Schools many children of workpeople as well as of diplomats and professional classes. They have the same opportunities for education and under the same conditions and if either they, or those of a higher social class, find that the academic content of the traditional course is beyond their powers, they receive a suitable form of secondary education which is much better than the extended primary course of traditional academic patterns. Thus the European Schools keep pace with developments in the national education systems of the major countries of the Six.

European Schools' addresses:

Luxembourg: Ecole européenne, boulevard de la Foire; Brussels: Ecole européenne, 1137 chaussée de Waterloo; Varese: Scuola Europea, Via Montello, 118; Mol/Geel: Europese School, Europa Wijk, Geel; Karlsruhe: Europäische Schule, Anebosweg 2; Bergen: Europese School, Zuurvansweg.

Textbooks used in the European Schools:

Geography books

QUENCEZ, G., *Les pays de la Communauté européenne et leurs dépendances*, Luxembourg, 1959, Service des Publications des Communautés européennes.

QUENCEZ, G., *Vocabularium Geographicum*, Bruxelles, 1967, Presses Académiques européennes.

History books

HAUTUMM, H. L., *Europäische Geschichte des Mittelalters und der Frühen Neuzeit*, Luxembourg, 1963. Gesellschaft für Veröffentlichungen der Europäischen Schulen.

A textbook on modern history is in preparation.

Farming in the Common Market

Agriculture has been included in the European Common Market for both economic and political reasons. When the Treaty of Rome was drawn up in 1958, agricultural production in the EEC represented 14 per cent of its total output by value. It was thus essential in aiming at political integration to give the same recognition to 17 million European farmers as to other socio-economic groups in the Community.

Just as the geography of the EEC countries is sharply contrasted, so does the character of agriculture vary among them. The economic significance of farming differs from nation to nation, a fact exemplified by the numbers employed in that sector, or by the land use statistics for the Six. Production techniques in certain areas have lagged behind technological achievements in industry and commerce. There are social problems inherent in agricultural change among peasant communities, but despite these mechanisation is spreading, and productivity is improving. At the same time as intra-Community trade in agricultural products is growing rapidly, the EEC remains the world's largest importer of farm produce, and an exporting group of considerable significance. A second study (to appear in European Studies, No. 6) will examine the agricultural policies applied in the Common Market—policies which have been evolved to coordinate and modernize the farm economies of the Six, and to shape their pattern of trade.

Variety is the key-note in the physical background to farming in the European Economic Community; the nature of the land surface, climate and soils is most diverse. The EEC countries are much fragmented, and hence each region tends to have its own problems for the farmer—frosts, flood or drought, deforestation or overgrazing, landslides or salination. Such a varied background has prompted a wide range of responses in agriculture; indeed, only a regional study of each country would show the amazing diversity of Common Market farming.

The economic and social background

Farming differed considerably in national importance in the six countries in 1957-1958 and this remains true today. Its contribution to the national products ranged from 7.5 per cent in Belgium to over 23 per cent in Italy, the average for EEC being 13.6 per cent. The comparable figure for Britain was 4.5 per cent.

Table 1 Land use 1965

	Total agricultural land		% of total agricultural land	
	'000 acres	% of total land area	Arable land	Perma- nent grass
Belgium ^a	4,125	54	56	44
France	84,250	61	60	40
Germany	34,500	56	59	41
Italy	48,750	65	74	26
Luxembourg	340	52	52	48
Netherlands	5,650	63	44	56
EEC	177,645	61	63	37
UK	31,023	51	60	40

^a Due to the pressure of urban growth yearly eating into stocks of farmland, Belgium has lost over 125,000 acres during the last five years. Source: Basic statistics of the Community, 1967.

Agricultural land

The area of agricultural land still reveals striking differences from country to country.

As shown in the above table, Italy has the greatest proportion of arable to grass land, which indicates an emphasis on crop growing—cereals, and fruit crops—while the Netherlands has the lowest percent-

age of arable land, because permanent pasture is fundamental to its dairying industry.

Farm sizes

The average size of farms varies from 17 acres in Italy to 44.5 acres in France, the EEC average being 27 acres. More than two-thirds of all Community farms are less than 25 acres and one-fifth between 25 and 50 acres in extent. Germany has over 54 per cent of its farm units of less than 12.5 acres. The average size of farms in the UK is 67 acres.

Table 2 Average farm size (acres)

Belgium	26
France	45
Germany	27
Italy	17
Luxembourg	42
Netherlands	28
<hr/>	
EEC	27
<hr/>	
UK	67

Source: Basic statistics of the Community, 1967.

Within individual countries there are again immense variations; the Italian contrast between the minute peasant holdings and the extensive underdeveloped estates of the South is a persistent problem. No less than 33 per cent of Italian farms are under 2.5 acres. France displays the same pattern, with a preponderance of very small units. Luxembourg is better placed than her associates in having more than half its holdings in the 50-125 acres category.

Land tenure

Land tenure varies considerably from country to country. Share-cropping now exists to any great extent only in Italy, but in all six countries an important percentage of farms include a combination of both owner-occupied and tenanted land. In Germany and Belgium, where mixed tenure is particularly important, most farms of this type comprise mainly tenanted land.

Table 3 Land tenure (% total number of farms)

	Owner occupied	Tenant occupied	Mixed tenure	Share-cropping
Belgium	14.9	26	59.1	nil
France	44	19	35	2
Germany	41.3	5.4	53.3	nil
Italy	59.4	7.9	21.8	10.9
Luxembourg	30.2	3.3	66.5	nil
Netherlands	32.1	29.4	38.5	nil

Source: Les données de base de l'agriculture des Six, Documentation européenne, 1968.

Belgium has by far the lowest percentage of owner-occupied farms. The very high cost of land

in a small country with a high population density means that most farm land is rented.

France has a tradition of owner-occupation, a form of tenure which embraces over a third of the land surface; many holdings are small—in 1962 half were less than 25 acres in size. Tenant farming, mainly in the North and West, accounts for one quarter of the land area.

Germany has a high proportion of owner-occupied farms, mainly very small. But the most common form of tenure is the mixed system with most farms comprising a small area of owner-occupied land and a larger rented area.

Italy presents a picture of great diversity. The high proportion of owner-occupied farms includes both tiny peasant holdings and, particularly in the South, vast but often underdeveloped estates. There are great differences from region to region. Tenant-farming is typical of the Lombardy plains, where modernization has progressed the furthest. Share-cropping persists in the provinces of Emilia, Tuscany and Umbria, though it is now disappearing as a result of reforms instituted in 1965.

In the Netherlands the importance of tenant-farming, including the tenanted element in mixed tenure, reflects the type of land, much of which has been reclaimed from the sea. This land is state-owned and rented out to the farmer. Thus tenant holdings account for 100 per cent of farms in the North-West Polder area, but are rare in the east of the country.

In Britain both owner-occupation and tenant-farming are common, but the form of mixed tenure is not often found. The large farm run by a bailiff or manager is much more widespread in Britain than in the Community.

Employment

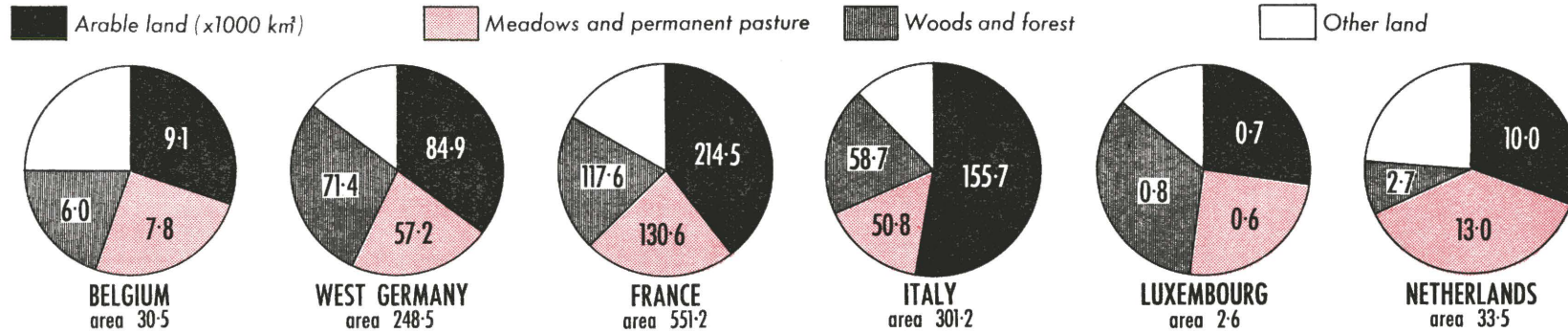
The most significant developments in European agriculture over the last 20 years have been the great increase in production and at the same time the remarkable reduction in the farm population. Since 1950 the Community's farm labour force has gone down by 6.5 million (two millions in each of France, Germany and Italy). The figure for the UK is about half a million.

The present employment level in Community agriculture varies between 6 per cent (Belgium) and 24 per cent (Italy) of the working population. Throughout the EEC about one in six of the persons in employment is in farming. In British agriculture the employment level is the lowest in the world.

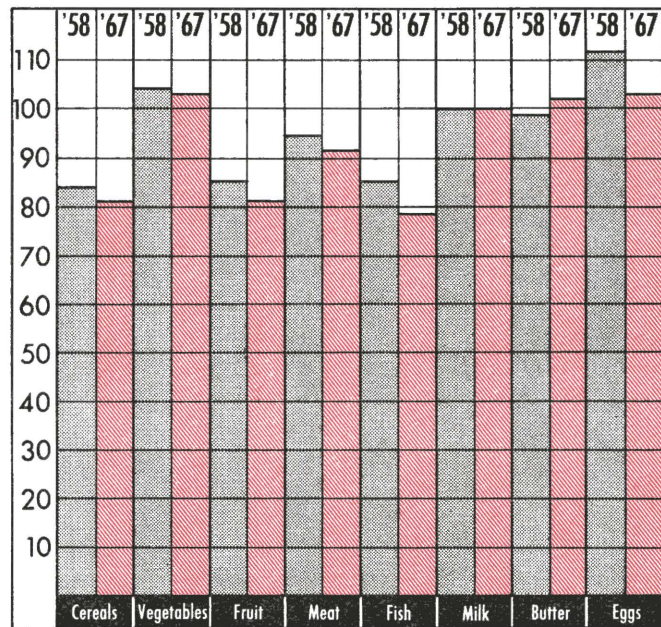
The majority of the EEC farmers is over 55 years of age and perhaps therefore adapts less readily to changing social and economic conditions. For some, farming is a part-time activity, combined with other employment; often supplementary sources of income are lacking, and the small scale of the farm units leads to underemployment in rural areas. The drift from the countryside to the town is an inevitable trend of rural change and reorganization.

LAND USE IN THE EEC

1962/63



SELF-SUFFICIENCY IN AGRICULTURE (%) in 1958 and 1967



THE EEC SHARE IN WORLD AGRICULTURAL TRADE: 1963 (%) (excluding intra Community trade)

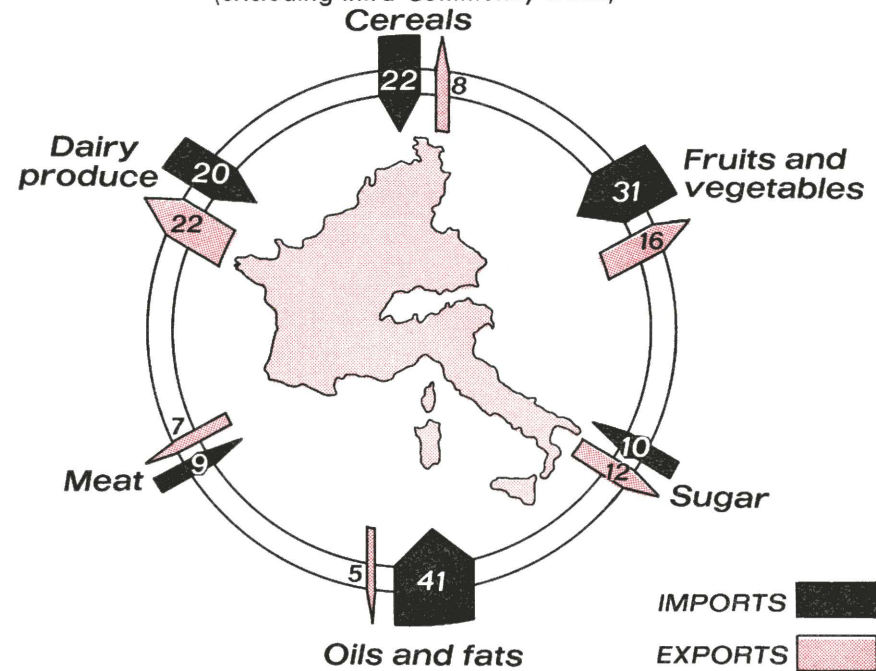


Table 4 Numbers employed in agriculture

	Numbers working in farming ('000)		Farm population as % of total civil employment	
	1950	1965	1950	1965
Belgium	368	215	11.3	6.1
France	5,438	3,370	28.3	17.0
Germany	5,020	2,980	24.7	11.0
Italy	6,945	4,900	41.0	24.7
Luxembourg	32	18	24.0	13.5
Netherlands	553	356	14.1	8.0
EEC	18,336	11,839	28.8	15.8
UK	1,198	833	5.1	3.2

Source: Memorandum on the reform of agriculture in the EEC, Commission of the European Communities, December 1968 (for UK: Report of Select Committee on Agriculture, 1968-1969).

Production techniques

Throughout most of the European Community there has been an inadequacy of capital to promote modernization.

In 1965, France had 59 tractors to every 1,000 ha of arable land; the equivalent figure for Italy was 37, but Germany had 155—an indication of the high degree of mechanisation which has been achieved. In Britain the figure was 74. Whereas there were 20 combine harvesters to every 1,000 ha of grain grown in Britain, the figure for the EEC was only 12.

Statistics for the dairy industry in the EEC show that more than 80 per cent of the dairy farmers have at most 10 milk cows, while two-thirds have less than five animals. In Britain the average dairy herd comprises 25 cows, though a third of the total number of cows are in herds of 50 and over.

Table 5 Mechanisation and productivity (1965, 1966)

	Tractors per 1 000 ha ^a	Fertilizer Kg per ha ^a	Yields of wheat Kg per ha ^b
Belgium	—	257	3,050
France	59	91	2,830
Germany	155	168	3,260
Italy	37	49	2,200
Luxembourg	—	138	2,270
Netherlands	—	239	4,000
UK	74	113	4,040

Note: 1 kilogram = 2.2046 pounds. 1 hectare (ha.) = 2.5 acres.

Sources:

^a Current Notes on the European Community, No. 1.

^b Basic statistics of the European Community, ECSO, 1967.

In Belgium farming has made a great effort to modernize since the Second World War, but the smallest holdings still lack mechanical aids. The use of fertilizers is expanding, and Belgium has been rewarded by rising yields of grain, sugar beet and milk. As a result of the high cost of land and the degree of mechanisation farm costs per acre have

increased dramatically and are twice those prevailing in France.

In the Netherlands, the level of agricultural achievement is exceptional; much reliance is placed on fertilisers, up to 450 kg. per ha. in market gardening areas. Mechanisation is far advanced, backed by agricultural research and training facilities. Crop yields are among the highest in the world with 42 tons per ha. for sugar beet and 29 tons per ha. for potatoes. Farming costs are inevitably heavy where such systems of intensive husbandry prevail.

German agriculture is making progress, although grain yields are on average only one-third of those in the Netherlands and less than half those of France. Germany illustrates a situation where the high degree of mechanisation is often actually wasteful since over half of her farms are too small to use a tractor economically.

Italy has relatively low returns. Although farming is a major element in the economy, it is not capable of supporting the Italian population. Hence Italy is forced to be the second largest importer of farm produce in the EEC, after West Germany.

In terms of agricultural performance, France occupies an intermediate position, with only fair returns. There are profound regional contrasts—the average application of fertiliser is over 200 kg. per ha. in the Paris Basin, but much less in the hill lands. Altogether, France has probably the best conditions of relief, climate and soil for farming in Western Europe, but much of the potential is unrealised.

Production and trade

As a whole the European Economic Community is not only the world's largest importer of agricultural produce but also an exporter of significance. An obligation imposed by the Treaty of Rome was that the Community should contribute to the harmonious development of world trade.

Between 1958 and 1968 its imports of farm produce from non-member countries rose by 52 per cent. Economic expansion among the Six (to which the removal of tariffs has contributed) explains this growth in demand. The percentage increase in intra-Community trade was however much higher, being 310 per cent (\$909 m. in 1958 to \$3,729 m. in 1968). During that period, Community exports of agricultural products rose by 60 per cent.

The traditional suppliers of food stuffs to the EEC (e.g., Denmark, Canada, etc.), feared that its system of levies on imports would have a deleterious effect on trade. The degree of protection for EEC producers depends on the internal price level in the Common Market (contrary to the British system, which pays subsidies to farmers in order that they may market farm products at prices as low as those paid for imported agricultural produce). The Community has remained a net importer of grain,

sugar, fruits and vegetables, meat, poultry, oils and fats, and is a net exporter of dairy produce, potatoes and certain horticultural products (plants, flowers, and bulbs).

Internal and external trade in dairy produce stands at a high level; *milk and milk products* in fact provide some 25 per cent of total farm income in the EEC, and apart from Italy, production is growing.

The Netherlands occupies a dominant position in the Community's rapidly expanding output of *plants, flowers and bulbs*, with 68 per cent of the internal and external trade in these items.

Regarding *fruits and vegetables*, the main EEC deficiencies are in tropical and sub-tropical produce (e.g., bananas and citrus fruits) but intra-Community and export trade in salad foods and other fruits is substantial. In Italy, fruits and vegetables form the principal source of agricultural income.

Apart from imports from former French overseas territories, the EEC sugar harvest is from beet; intra-Community trade in *sugar* is limited, being about equal in value to exports from the EEC of that commodity.

While Italy and France together meet about 75 per cent of the Community's requirements of *olive oil*, the Six provide only 5 to 10 per cent of their consumption of *other vegetable oils* (e.g., palm oil), the remainder being supplied from tropical areas.

The EEC is a net importer of *beef, pork, bacon and poultry*, the demand for which is rising. Benelux is a major centre for *egg and poultry production* for the Community, although sizeable imports from outside the Common Market are necessary. Meat products comprise the third largest group of EEC food imports after oils and grains.

In 1968, the Six imported some five times as much *grain* from non-member countries as they exported. Intra-Community movements of grain only amounted to 3.2 m. tons, of which most came from France. Feed grain imports have soared since 1958 due to the growth in EEC livestock production.

By 1967, *food stuffs and raw materials* of animal or vegetable origin accounted for one-third of the Community's total imports from non-member nations, and for one-tenth of its exports on average. They formed as much as one-fifth of Dutch and French, and one-eighth of Italian exports by value. Within the EEC itself, over 16 per cent of the trade between the member states was in farm produce.

Conclusion

Despite the evident diversity, agriculture in the six countries also has many features in common and faces the same main problems.

1. The very small scale of so many EEC farm units makes mechanisation impractical. The amalgamation of holdings is a solution, thereby increasing the number of medium sized units. France has a scheme to improve farm layouts, and create larger, more viable farms.

2. Fragmented holdings of scattered parcels of land are time wasting for the farmer. Consolidation is being attempted to form more compact, regular fields.

3. Systems of progressive agriculture, based on the practice of mixed husbandry, with a balance between crops and live-stock, on crop rotations, product specialisation, and technical and veterinary innovations have still to be diffused in the less developed areas of the EEC.

4. Low yields and products of indifferent quality have to be corrected. In remote districts (e.g., in the Apennines), inadequate transport gives no inducement to marketing, or to processing or packaging, which would earn income and improve standards of living.

5. Peasant communities are traditionally conservative in outlook. Marginal farming areas (e.g., stock rearing districts of upland France) have lagged behind in modernising and marketing; these areas are agriculturally backward by comparison with the economically competitive and prosperous grain or fruit growing regions, where enterprising farmers are actively adapting to the long delayed technical revolution.

Accordingly, agricultural improvement is a fundamental part of the Treaty of Rome; the objectives of farming policy seek to raise productivity and to stabilize markets, smoothing out gluts and scarcities. Secondly, they aim at ensuring a fair standard of living for the farming community, and the establishment of reasonable prices. Account has to be taken of the differing components of the EEC, and especially of the social structure of farming which requires that adjustments be made slowly. In spite of the obstacles, agricultural output has been increasing by 7 per cent per annum, and the conflicting interests of six national agricultural systems have been largely reconciled. Under EEC policy, the subsistence peasant farmer so long characteristic of rural Europe is being transformed into a commercially minded and efficient farmer.

(A second article will follow in the next issue.)

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