

Commission White Paper on Growth, competitiveness, and employment (1993)

Caption: Conclusions of the Commission White Paper on 'Growth, competitiveness, and employment', which was approved by the European Council on 11 December 1993 and recommends increased cooperation in research and development, the adoption of a new development model taking into account the environment and qualitative needs, and action to be taken regarding the employment market.

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Chapter 10: Thoughts on a new development model for the Community

10.1. The structural links between environment and employment

(a) The inefficient use of resources in the EC

The current development model in the Community is leading to a sub-optimal combination of two of its main resources, i.e. labour and nature. The model is characterized by an insufficient use of labour resources and an excessive use of natural resources, and results in a deterioration of the quality of life. The Community needs to analyse in which ways economic growth can be promoted in a sustainable way which contributes to higher intensity of employment and lower intensity of consumption of energy and natural resources.

i) The 'under-use' of labour resources

The use of labour resources has been persistently discouraged for several decades. Although the growth in labour productivity has been a major element contributing to a continued increase in net income per head, a critical point seems to have been reached. On the one hand, the substitution of labour by capital has been accompanied by a continued increase in the use of energy and raw materials, leading to an over-exploitation of environmental resources.

On the other hand, business strategies are being driven by labour-saving considerations to an extent where the productivity gain at the business level seems to be increasingly neutralized by an increase of costs for the society. One of the clearest examples is unemployment, with labour being made redundant but at the expense of an increase in unemployment benefits.

The financial requirements of those social security arrangements increase the indirect labour costs further, intensifying the tendency towards labour saving. This mechanism has in addition led to a considerable loss in competitiveness on external markets as sophisticated technology is increasingly being installed in low-wage countries.

Many countries have tried to manage the problem through a reduction in social security provision, albeit with limited success. The resulting increase in poverty and income disparities has led to social tensions and a deterioration in the quality of life in many urban centres.

The 'under-use' of labour resources has apparently not only a quantitative but also a qualitative aspect. The organization of work in a standardized way, frequently in huge production units, has distanced the individual from the results of his work. The resulting loss in motivation and creativity, compared to what can be observed in small businesses and farms, is therefore likely also to have had an impact on economic output as well as on the enjoyability of many jobs. Some businesses have managed to offset the loss of human capital by combining small, more or less independent production units in an efficient and flexible way.

ii) The 'over-use' of environmental resources

The 'under-use' of labour is combined with an 'over-use' of environmental and natural resources. During the last two decades, and in particular since 1973, it has become increasingly clear that the natural resources are not available in unlimited quantities.

Because market prices do not reflect sufficiently the limited availability of those natural resources and the environmental scarcities related to their consumption, their over-use has become systematic. This situation cannot continue for different reasons:

1. The clean-up of past damage requires mounting costs (e.g. polluted sites);
2. The reduced availability and quality of natural and environmental resources represents a burden for future generations and a reduced capacity for long term economic prosperity;
3. Extrapolating current industrial consumption and production patterns to the entire world would require about ten times existing resources, illustrating the scope for possible distribution tensions at global level if current tendencies are not curbed;
4. Some forms of pollution are threatening not only local ecological systems but also the natural balance of the entire planet, e.g. climate change, ozone layer, bio-diversity.

These inefficiencies represent significant but hidden welfare losses. As current economic accounting does not reflect unpriced resources such as the environment, only partial estimates are available. It is, for example, generally recognized that the external cost of current transportation systems alone amount to at least 3–4% of GDP (environmental pollution, accidents, traffic jams). The more research intensifies and the more is known about these hidden costs which someone ultimately has to bear, the more those estimates become a cause of concern.

Another inefficiency of the current development model concerns the external effects related to the use of fossil and nuclear energy. Although intensified technological progress is able to solve many problems, it is also true that energy can no longer be seen as an unlimited resource, particularly if the external costs associated with climate change, with acidification, with health risks, and with nuclear waste and risk are not taken into account. The relative position of energy in the new development model is therefore a key element to be considered.

A closer look at the way the Community uses its labour and environmental resources highlights some fundamental weaknesses in the incentive structure of the Community economy attributable to public intervention (e.g. tax treatment of labour costs, transport infrastructure) as well as to market forces (environmental externalities). As a consequence, it is open to question whether, to an increasing extent, the economic growth figures do not reflect illusory instead of real economic progress and whether many traditional economic concepts (e.g. GDP as traditionally conceived) may be losing their relevance to policy formulation in the future.

(b) The request for a new 'sustainable development' model

The inadequate use of available resources — too little labour, too much use of environmental resources — is clearly not in line with the preferences of society as revealed through the democratic system: people expect for themselves and for their children more jobs and a stable income on the one hand, but also a better quality of life on the other. The latter is reflected in a growing demand for enjoyable jobs and environmentally friendly products and public goods.

Any new policy will have to provide substantive answers to the questions of how to reduce pollution and how to improve the quality of life in a broad sense. The former involves reversing the present negative relationship between 'classical' economic growth and more pollution. People no longer see why, for example, the use of more packaging or the presence of more printed advertising material in their mail contributes to higher figures for officially registered economic growth.

Improving the quality of life concerns not only habitats and nature protection but also rehabilitation of the landscape, better integration of new buildings and transport infrastructure into historic urban centres, and the

availability of parks and other green zones in urban areas. In such a way, the quality of life of millions of people can be substantially improved.

A more fitting policy should therefore be able to offer the society a better quality of life with a lower consumption intensity and as a consequence with a reduced stress on environmental resources. The creation of more challenging jobs is to be viewed in this context, as is the optimal utilisation of human capital in local networks, fostering individual responsibility and social participation. The new development model for the Community has therefore to address the inefficient use of available resources in a broad perspective, i.e. taking into consideration the overall quality of life of the individual.

Some of these questions have a Community dimension. Indeed, the transition phase towards a more optimal economic model is easier to carry out if several countries act together, as this minimizes costs and maximizes results. Furthermore, many measures implicitly or explicitly concern sectoral policies as well as the steering of market forces within the single market. This potential new role for the Community is now explicitly recognized by the Treaty now that sustainable development has been incorporated as an overall Community objective.

(c) Clean technology is a key

A major element of the new development model will be to uncouple future economic prosperity from environmental pollution and even to make the eco-economic relationship a positive instead of a negative one. The key to doing this will ultimately lie in the creation of a new 'clean technology' base.

There are already important examples which show that such an uncoupling is possible by bringing the environmental resources explicitly into the production function. The German and Japanese economic growth figures for the last two decades, while being the best successful ones in the industrial world, were brought about with a negligible increase in energy consumption. Previously, however, a linear relationship was considered to be the norm. The driving force behind this basic change has been a high energy price which, also contrary to the usual expectations, did not hinder but rather encouraged economic growth.

Although economic models tend to view technological achievements as exogenous factors, it should be recognized that these are essentially the result of fundamental incentives originating in the public and private sectors. Moreover, it should be clearly stated that any technology is made by man and that, in this respect, continued investment in human capital is critical. Solving the current environmental problems will be a major challenge in the coming years.

The new integrated technology, of which very likely only the tip of the iceberg has been seen, should result in a reduced need for environmental resources through:

- improved 'nature productivity' of products: e.g. increased energy efficiency, products with a lower intensity of raw materials (e.g. lighter cars);
- a longer product lifetime: making repair and control services more attractive, these being labour-intensive activities par excellence;
- more reuse and recycling: use the same raw materials or spare parts far more frequently;
- improved process technology: the production processes (and not the final consumers) generate the largest quantities of waste water, solid waste, etc.

The gradual implementation of the new clean technology will generate a continuous renewal of the capital stock in the Community and will necessitate special training for newly qualified engineers and managers. The resulting incorporation of clean technologies by industry will become far more important than the current clean-up activities such as waste and waste water treatment, however important these are for the immediate future. The relative, and even the absolute, importance of those activities is expected to decline the closer society comes to the sustainable development model.

The new clean technology is also likely to generate, apart from a much improved environment, considerable secondary benefits for the Community:

- in terms of competitiveness, a dual gain: the Community would improve the overall strength of the economy through optimal use of its resources and the prevention of costly clean-up operations, while a first mover advantage can be exploited; the latter is not to be underestimated as the new technology is a necessity not only in the industrial world but also in the NICs and LDCs;
- in strategic terms: the enormous dependence of the Community on the rest of the world for its imports of energy and raw materials would be reduced and better managed; the savings made through import replacement could be used to encourage sustainable development, in particular by transferring clean technology to LDCs;
- the Community would demonstrate internationally how sustainable development can be translated into practice, would reduce its excessive use of primary resources and would thereby alleviate considerably future distribution problems for scarce environmental and natural resources at global level.

10.2. Ways to facilitate structural change

(a) A strategic microeconomic policy

The uncoupling of economic prosperity from environmental deterioration through the creation of a new clean-technology base is unlikely to happen without an active and imaginative policy support. To that end, existing policy instruments will have to be refashioned in so far as they encourage the inefficient use of resources in the Community. Particular attention will have to be paid to many regulations which have been gradually developed during the last few decades but which no longer serve objectives consistent with the new sustainable development model. On top of that, market prices will have to internalize systematically all the external costs that they generate in society. Such a review should produce a set of clear signals and incentives for all economic agents and decision-makers.

The first key element of a strategic microeconomic policy is a significant reorientation and encouragement of basic research in areas of particular relevance to the sustainable development model (renewable energy, recycling and new materials, biotechnology, etc.). This will also have implications for economics, and in particular 'green accounting', which is basically a systematic analysis and estimation of all external effects. In combining scientific and economic information, a better understanding of the problems and solutions concerning the use of natural resources and their relative importance will be obtained.

The second key element is the speeding-up of the incorporation of the results of basic research into marketable innovations. To that end, a consistent set of pragmatic incentives needs to be developed for economic agents considering investments related to the new products and production processes, including new and innovative forms of work organization. This should create a 'virtuous' circle of confidence among consumers and investors in a plan for society that is conducive to a sustainable economic future.

(b) Policy instruments at macroeconomic level

The set of incentives envisaged above is part and parcel of a gradual and systematic review of many policy instruments several of which have a Community dimension. In this context, the following instruments merit particular attention:

— **Indirect taxes** on pollution are a powerful way to address hidden subsidies in so far as external costs are generated at the expense of society as a whole. Therefore, market prices may have to be adjusted for the environmental damage caused by the use of particular products, e.g. energy sources according to their CO₂ content.

— **Tax regulations**, and in particular tax-deduction schemes, are also a powerful way of encouraging sustainable economic activities (e.g. pre-market research on green innovations) but are currently having, in

many cases, a negative environmental impact (e.g. generous tax-deduction schemes for the use of private cars, real estate taxation favouring suburban development, etc.).

— **The dynamics of the internal market** can be channelled into generating optimal resource use in the Community: firstly, sound competition on a level playing field affords a better chance of generating the necessary technological changes and renewal of capital stock; secondly, public procurement rules could be explicitly tailored to sustainable objectives; thirdly, the internal relocation of economic activities will contribute to the most efficient exploitation of environmental resources inside the Community as well as to a reduction of the excessively high environmental pressures in some areas. The same argument applies, of course, to the enlargement of the Community.

— **International trade and cooperation policy:** as environmental problems frequently have transfrontier and global aspects, they lead to more intensive international cooperation. In many cases, the use of Community resources for dealing with foreign environmental problems is shown to be a cost-effective solution for environmental problems inside the Community (acidification, pollution of rivers, reduction of CO₂). This is also true of structural problems in the sphere of growth and employment. In both cases, real and sustainable solutions have to take account of this international dimension, in particular as regards regions close to the Community, e.g. Central and Eastern Europe, the CIS and the Mediterranean.

(c) Policy instruments at sectoral level

Apart from the macroeconomic instruments, the Community also to some extent possesses instruments in particular sectoral areas the importance of which is likely to grow the more the Community strives to establish the new economic model mentioned above. The following sectors merit particular attention and have been explicitly addressed in the Fifth Environmental Action Programme:

— **Energy:** The way energy is consumed is at the centre of the new development model. In parallel with the liberalization of the internal energy market for electricity and gas, the Community will have to make strategic choices which until now have been the exclusive preserve of the Member States. Those options involve in particular a vigorous pursuit of demand side management as well as a diversification of supply towards environmentally friendly energy sources.

Important tools have been used in the past (e.g. Euratom) and need redesigning and strengthening.

— **Transport:** The enormous welfare losses mentioned in the previous section will have to be eliminated via a review of investment and planning in transport infrastructure (in particular in urban areas). Tax and subsidy instruments commonly used in the past could be substantially revised as well as zoning and urban planning procedures.

— **Agriculture:** The current review of the CAP points to a reduction in the general level of price support compensated for by direct financial support for farmers and accompanied by other measures allowing for the remuneration of agricultural practices favourable to the environment as well as by a fair remuneration of activities safeguarding hydro-geological balances (quality of drinking water, avoidance of soil erosion, etc.) or improving the amenities associated with the landscape. This tendency should be reinforced gradually in the years to come. In such a way, the current imbalances in environmental terms will increasingly be eliminated, while a new basis is laid for sustainable activities and an improved quality of life in rural areas. In this respect, it is also important to evaluate, economically as well as environmentally, pilot projects being undertaken in several Member States concerning the production of biofuels (biomass, diester, bioethanol), particularly with a view to developing environmentally friendly energy scenarios.

— **Industry:** A new set of business-oriented environmental instruments is to be exploited and a start has already been made through eco-auditing, eco-labelling, voluntary agreements, liability schemes, etc. Some of these instruments will create new job opportunities, particularly in environmental services.

(d) Short-term policy recommendations

If it is recognized that the current recession has a dimension beyond the business cycle, preparations for the long-term project need to start now. This implies not only a systematic refashioning of public policy along the lines sketched out above, but also the design of anti-cyclical policy measures which could at the same time contribute to attainment of the sustainable development model.

A basic recommendation concerns the prevention of further environmental damage through the creation of an 'environmental infrastructure'. Notwithstanding the gradual development of clean technology, clean-up activities are likely to remain significant in the short and medium term and should expand significantly in the immediate future. This will mean making up the considerable backlog of investments in waste-recycling equipment (cf. oversupply of waste paper), in waste incinerators (incorporating best available technology standards), and in waste water treatment equipment.

Many of these activities concern construction activities and are likely to create a significant number of jobs in the short term, while the financing should be provided out of levies and charges in accordance with the 'polluter pays' principle provided for in the Treaty. The amount of public expenditure and the employment generating capacity may be greater in that the basic infrastructures are still to be built, e.g. sewerage projects.

The same employment-generating possibility applies to the build-up of a higher capacity in the field of public transportation systems that is capable of improving substantially the quality of life of millions of people living in urban areas.

Surveys also reveal that there is considerable demand, and an explicit willingness to pay, for the creation of enjoyable and environmentally friendly projects at the local level, including the creation of parks and walking/jogging and biking circuits.

Energy use has been pinpointed several times as one of the key areas of the new economic development model. In particular in households, efficiency standards in energy use can be substantially improved — indicators frequently show 40–50% — provided appropriate investments are made in the area of housing (double/triple glazing, roof insulation, best available technology (BAT) boilers). A considerable number of jobs can be created here, provided sufficient incentives are introduced.

Finally, if the twin challenge of unemployment/environmental pollution is to be addressed, a trade off can be envisaged between lower labour costs and higher pollution charges. One particular concrete Commission proposal which is entirely consistent with long-term structural change concerns the carbon/energy tax: external costs related to energy use are being tackled, while the substantial revenue (xb1 1% of GDP) can be used as a first step to accommodate high wage costs borne by employers.

An important dimension of the proposal concerns the widely advocated shift towards a more intensive use of indirect taxation, as well as a widening and balancing of the tax base for energy products. In the Community these proposals enjoy popular support: about 60% of European citizens are in favour of such a tax.

10.3. Conclusions

The nature of the structural change the Community is going through needs to be recognized and addressed. It is important to develop a plan for society that is conducive to a higher quality of life in the Community and can motivate people, thereby generating the requisite human resources:

a) The serious economic and social problems the Community currently faces are the result of some fundamental inefficiencies: an 'under-use' of the quality and quantity of the labour force, combined with an 'over-use' of natural and environmental resources. Both elements are at the heart of the economic development model followed by the Community during the past few decades.

b) The basic challenge of a new economic development model is to reverse the present negative relationship between environmental conditions and the quality of life in general, on the one hand, and economic prosperity, on the other. In this respect, a widespread application of clean technology is a key aspect. It is to be stressed that much scientific knowledge is already available but is waiting for insertion into the economic system.

c) The transition towards a new 'sustainable development' model requires the development of a consistent set of market incentives. The basic task will consist of a systematic review of existing macroeconomic and sectoral policies, the basic guideline being that market prices have to incorporate all external effects. Indeed, many policy decisions in the field of taxation, subsidization, competition, infrastructure, labour organization, land use, urban planning, etc. were developed in a gradual way and on an ad hoc basis, or on the basis of long-term considerations which no longer fit the goal of sustainable development. The same applies even more to policies in the field of energy, transport, industry and agriculture, where several choices made in the 1950s and 1960s should be the subject of a review.

d) Any short-term policy recommendation to overcome the current recession should be the first step in the new policy direction mentioned above. Moreover, from the same long-term perspective, considerable employment opportunities can be created in environmental infrastructures, energy efficiency improvements, the creation of enjoyable natural areas and the clean-up of polluted areas.