

# THE EFFECTS OF ENVIRONMENTAL REGULATIONS ON INTERNATIONAL TRADE AND INVESTMENTS IN THE FEDERAL REPUBLIC OF GERMANY \*

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## I. ENVIRONMENTAL LEGISLATION OF THE FEDERAL REPUBLIC OF GERMANY

The Federal Republic of Germany is not only one of the principal world-trade countries,<sup>1</sup> but also one of those states, which is most urgently confronted with the necessity of establishing strict measures for the protection of the environment, since it has become apparent that further environmental damage would threaten the very basis of life.<sup>2</sup>

The comprehensive groundwork for the enforcement of new strict measures for the protection of the environment was laid down in the Environmental Program of the Federal Government of 14/10/1971.<sup>3</sup> Many far-reaching legislative measures implementing the Environmental Program have already been taken; others are in preparation.

In order to present an overview of the kinds and content of these most recent norms for the protection of the environment, also to consider their effects on foreign trade, certain of the most important laws and drafts of projected laws are presented in broad outline.

The transference of the necessary legislative competence from the states to the Federal Government<sup>4</sup> opened the way for the enactment of the Law for the Protection from Injury to the Environment by Air and Noise Pollution, Vibration, and Similar Occurrences (*Gesetz zum Schutz vor schädlichen Umwelteinwirkungen durch Luftverunreinigungen, Geräusche,*

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<sup>1</sup> Exports 1972 for 149 billions DM = 12.6 per cent of world exports; Imports 1972 for 128 billions DM = 10.5 per cent of world imports; see: *Bundesministerium für Wirtschaft, Leistung in Zahlen '72, 1973.*

<sup>2</sup> See Umweltprogramm der Bundesregierung v. 14.10.1971, *Bundestags-Drucksache* (hereafter cited BT-Drucksache) VI 2710, p. 7.

<sup>3</sup> *Supra*, note 2.

<sup>4</sup> Law from 12.4.1972 (*Bundesgesetzblatt* [hereafter cited as BGB1.] I, p. 593).

Erschütterungen und ähnliche Vorgänge, BImSchG) of 15/3/1974 (BGBl. I p. 721), that became effective on 1/4/1974, Section 4 ss. of this law can serve as an example of *process standards*, i.e., such norms as are related to the manufacturing process such as, e.g., emission limitations, or precautionary measures of a technical nature.<sup>5</sup>

§§ 4 ss. BImSchG contain definite requirements for the construction and operation of industrial plants. They must have, as already required by the “Gewerbeordnung” (BGBl. III 7000-1) a permit, if they are considered environmentally damaging.

This permit is only issued if the prescribed precautionary measures for the avoidance of damage to the environment are fulfilled (§§ 5, 7 BImSchG). The technical requirements and limitations on emissions are determined by regulation (§ 7 BImSchG). Strict new limitations are presently being prepared.<sup>6</sup>

Stricter regulations in the sphere of *product-related* environmental measures have also been issued or can be expected in the near future. These norms (so-called *product standards*) limit gaseous emissions of industrial products and materials, or place special quality requirements on the composition, use, or consumption of such products.<sup>7</sup>

The legislative aim for the development of more “environmentally friendly” products is directed especially at packing materials, detergents, combustible fuels, pharmaceutical products, insecticides, fertilizers, and motor vehicles.<sup>8</sup>

See for example §§ 34 ss. BImSchG, which lay the basis for strict quality requirements for combustible — and motor fuels (§ 34 BImSchG) as well as products and materials (§ 35 BImSchG).

According to these sections, such items may be employed for use only if they fulfil certain requirements (still to be set forth through new regulations) for protection against air and noise pollution.<sup>9</sup>

<sup>5</sup> In a broader sense, general *quality standards* are also related to the process of production. These norms set tolerance limits for the pollution of water and air in a certain region. Although not exclusively directed towards the industrial production, they affect it particularly. At mentioning of process standards these norms shall also be included in the following; for definition see: *Declaration of the governments of member states assembled in the Council of 22 November 1973, concerning an Action Program for the protection of the environment* (hereafter cited as Action Program of the EEC), Abl. C 112/1 (49) of 20.12.1973.

<sup>6</sup> See Bundesministerium des Innern, *Umwelt*, Informationen des Bundesministers des Innern zur Umweltplanung und zum Umweltschutz, No. 29/1974.

<sup>7</sup> For definition see *Action Program of the EEC*, *supra*, note 5.

<sup>8</sup> See generally Bundesbericht Forschung IV, *BT-Drucksache*, VI 3251 of 13.3.1972.

<sup>9</sup> More stringent requirements relating to the sulphur content could bring about a transfer from high sulphur oil of the Middle East to low sulphur oil of North Africa; cf. *United Nations Conference on Trade and Development*, UNCTAD Secre-

Strict requirements regarding the lead content of gasoline are prescribed in the Law to Prevent Pollution of the Air by Motor Vehicles (Gesetz zur Verminderung von Luftverunreinigungen durch Bleiverbindungen in Otto-Kraftstoffen für Kraftfahrzeugmotoren, Benzin-Bleigesetz) of 5/8/1971 (BGBl. I p. 1234).

According to § 2 par. 1 of the law, the lead content of gasoline as of 1/1/1972, could not exceed 0.4 g/l (grams per liter) and as of 1/1/1976 0.15 g/l.

These requirements go far beyond those of the other European states.

Basically, in all German environmental measures, pollution control costs are attributable to the persons responsible for detriments to the environment (so-called polluter-pays principle).

A special way of implementing the polluter-pays principle is illustrated by the Law concerning Measures to Assure the Disposal of Waste Oil (Gesetz über Massnahmen zur Sicherung der Altölbeseitigung, Altölgesetz) of 23/12/1968 (BGBl. I 1968, p. 1419):

The waste disposal costs are borne by the consumer since a special surcharge is attached to the product. The income from this surcharge supports those enterprises which undertake the collection, disposal, or recycling of waste oil (cf. § 2 Altölgesetz).

No uniform federal regulations concerning water pollution have as yet been enacted. Water quality standards are planned.<sup>10</sup>

In the field of water pollution, industry will face a considerable financial burden in the near future on account of the planned federal sewage charge.<sup>11</sup> The draft of a Law concerning Surcharges for the Discharge of Sewage into Water (Gesetz über Abgaben für das Einleiten von Abwasser in Gewässer)<sup>12</sup> provides that the "polluter" must bear the costs of water purification in the form of public surcharges. The amount of the charges will be fixed in order to stimulate each discharger toward positive and effective action to avoid pollution. Manufacturers will have an economic incentive to change production processes, improve internal plant management of wastes, and rely more on recycling and recovery to reduce discharge of wastes. They will, therefore, be encouraged to seek

tarif, Impact of Environmental Politics on Trade and Development, TD/130, 1972, p. 7; this development has been prevented because of opposing political development.

<sup>10</sup> *Umwelt*, No. 22/1973, p. 1.

<sup>11</sup> The high cost of these charges caused protests from industry. According to a statement by the pulp and paper industry the law is unconstitutional, because the extent of the charges endangers the very existence of the pulp industry itself. See Verband Deutscher Papierfabriken e.V. (VDP), *Umweltbilanz der Deutschen Zellstoff- und Papierindustrie*, 1974, p. 17.

<sup>12</sup> *BT-Drucksache*, 213/74; see also *Umwelt*, No. 30/1974, p. 7.

out and use new technology rather than merely debating its technical feasibility.

The total financial burden to industry resulting from the enactment of the environmental measures just discussed is difficult to estimate.

The total costs of environmental planning and protection in the Federal Republic of Germany, which involve to a great extent state expenditures, were estimated for the period 1971-1975, to be 70.5 billion DM (base year 1970), about 1.8 per cent of the GNP.<sup>13</sup>

These estimates correspond, approximately, to assertions made for comparable industrial nations.<sup>14</sup>

These costs, when compared with those for research, education, and development aid, seem neither exorbitant nor unsupportable by a national economy.<sup>15</sup>

Indeed, certain especially environmentally damaging industries (among others chemicals, iron and steel, energy generation, oil, pulp and paper) are more adversely affected than others. For example, the investment of the chemical industry for new installations is estimated to be 6.8 billion DM, which constitutes 24% of the net investment for environmental protection by all sectors of the economy or 1/7 of the total investment of this sector of industry.<sup>16</sup>

In the industries mentioned above the costs and prices of manufactured products will undoubtedly change considerably.<sup>17</sup>

<sup>13</sup> This includes: 28.5 billion DM net investment for new plants to protect the environment; 8.0 billion DM operating costs; 34.5 billion DM operating costs and costs for replacement of obsolete plants, as well as financing costs for research and development. See Gutachten zur Gesamtbelastung der Wirtschaft, *Materialien zum Umweltprogramm der Bundesregierung zu Drucksache*, VI/2170, p. 614.

<sup>14</sup> USA: 1970-1976, 1.6 per cent of GNP; 1971-1980, 2.2 per cent, see Council on Environmental Quality, Environmental Quality, *The Third Environmental Report of the Council on Environmental Quality*, 1972, p. 281; Sweden: 1.4-1.6 per cent; Netherlands 4-5 per cent according to UNCTAD (*supra*, note 9), p. 8; Japan, 1970, already 5.8 per cent, see GATT, Studies in International Trade No. 1, *Industrial Pollution Control and International Trade*, 1971, p. 5 ss.

<sup>15</sup> Gutachten zur Gesamtbelastung der Volkswirtschaft (*supra*, note 13), p. 614; see also OECD, *Analysis of Costs of Pollution Control*, 1973, p. 5.

<sup>16</sup> Gutachten zur Gesamtbelastung der Volkswirtschaft (*supra*, note 13), p. 612.

<sup>17</sup> According to Leontief/Ford, Air Pollution and the Economic Structure, Empirical Results of Input-Output Computations, cited in GATT, *supra*, note 14, pp. 25-26, it has been estimated that prices of products will increase with actual compliance with Clean-Air Act (USA) of 1967, by the following percentages: e.g. primary non-ferrous metals 16.8, electric utilities 7.3, iron and steel 3.5, plastic and synthetic materials 0.6, pulp and paper 0.7. If higher sulphur fuels are replaced by lower sulphur fuels, industrial costs will rise as follows: coal mining 6.1; iron and steel foundries 2.9; electric utilities 2.9; pulp mills 3.2; plastic and synthetic materials 10.3. Other estimates in connection with sulphur fuels reach different results; the latest investigations in Germany come to the conclusion that on the basis of growing

Basically, the magnitude of the increase depends upon the extent to which the production of a product is burdened with pollution control costs, and to what extent pollution abatement costs can be shifted as social costs to the general public.

Goods which are especially damaging to the environment will become especially expensive. The consequence of this increased expense will necessarily be higher demand for less expensive products beneficial to the environment.

As long as substitutes are available, there will be changes in the distribution of goods and trade alterations as well. The conversion from coal and oil to natural gas serves as an example.<sup>18</sup>

## II. DO STRICTER MEASURES FOR THE PROTECTION OF THE ENVIRONMENT ENDANGER GERMANY'S COMPETITIVE POSITION IN INTERNATIONAL TRADE?

One of the arguments most frequently employed (and accepted) against strict national environmental regulation, is that competitive disadvantages will arise and threaten the export capability of German enterprise. Therefore, it seems necessary to analyse the extent and importance of this issue.

The extent to which cost and price increases affect Germany's ability to compete internationally depends, in the final analysis, upon the measures adopted by other states involved in international trade. Basically, it can be assumed that the anti-pollution requirements of other states (except the most highly industrialized, such as the U. S. and Japan) are considerably below those of the Federal Republic of Germany,<sup>19</sup> so that their enterprises enjoy cost advantages.

Even if one assumes that today no industrial nation discounts the

imports of higher sulphur fuel, pollution costs will amount to 18 per cent of the present price of fuel, without even achieving the quality requirements of the planned regulations in the Federal Republic of Germany. See *Frankfurter Allgemeine Zeitung* of 5.6, 1974; see also *Umwelt*, No. 27/1973, p. 21; Estimates of the "Council of Environmental Quality" and the "Environmental Protection Agency" (in *Betriebswirtschaftliche Kosten von Umweltschutzmassnahmen und ihre gesamtwirtschaftlichen Auswirkungen*, 1972, p. 15) reckon with price increases between 0 and 10 per cent.

<sup>18</sup> Freytag (*et al.*), *Umweltschutz und Wettbewerbsordnung*, 1973, p. 48.

<sup>19</sup> See, for example, the *Benzin-Bleigesetz* (*supra*, p. ...); survey of environmental protection laws of the EEC member countries in: Jürgensen, *Studie über die ökonomischen Auswirkungen unterschiedlicher Mittel der Umweltschutzpolitik, erstellt den Europäischen Gemeinschaften* (not published), 1971, p. 30 ss., p. 106; for environmental protection laws of OECD member countries see *OECD, Pollution by the Pulp and Paper Industry*, 1973, p. 45 ss.; *OECD, The Problems of Persistent Chemicals*, 1971; Schrafl, "Die Konsequenzen für Unternehmens und Betriebspolitik" in: *Umweltpolitik in Europa* (Hrsg. M. P. von Walterskirchen), 1973, p. 167 (169).

necessity of adopting environmental measures, a degree of environmental protection measures equal to those of Germany will come only slowly, moreover there will always remain differences from country to country and industry to industry, depending upon regional, economic, and social particularities.<sup>20</sup>

Changes detrimental to the competitive position of German companies are, therefore, likely to occur, although the scope of competitive disadvantages is limited by the fact that, in general, not more than 25 per cent of the exported goods are burdened with substantial environmental costs.<sup>21</sup>

### 1. *Lack of Visible Changes Detrimental to the Competitive Position of German Enterprises*

The question of to what extent the competitive position of German firms is *in fact* affected by environmental measures, cannot yet be answered today. Above all, the required data from which conclusions concerning quantitative changes in foreign trade can be drawn, are missing.

From the existing data concerning changes in the export-import situation, conclusions can hardly be drawn.

In spite of increasingly strict environmental standards, the export share of several industrial sectors is still rising, among them even those branches extremely burdened with pollution-control costs, eg. the chemical industry.<sup>22</sup>

Regarding this development, we can assume that in these sectors rising pollution control costs do not exercise a substantial influence on foreign trade. But the question remains open, whether competitive disadvantages with respect to environmental legislation exist but are presently compensated for other relevant factors influencing the conditions of competition and international trade, such as increasing productivity and exchange rate fluctuations.

Other particularly environmentally damaging industrial sectors, e.g., pulp and paper, register an increasing amount of imports.<sup>23</sup> Here too

<sup>20</sup> See Jürgensen (*supra*, note 19), p. 106; Zimmer, *Umweltschutz und Aussenhandel*, AWD, 1972, p. 205.

<sup>21</sup> Jürgensen (*supra*, note 19), pp. 142, 145; in USA less than 20 per cent, *Council on Environmental Quality, The Second Annual Report* (1971), pp. 132, 133.

<sup>22</sup> Export of chemical products: 1966, for 10.773 bill. DM, 1970, for 17.414 bill. DM, 1972, for 19.134 bill. DM, *Statistisches Bundesamt, Statistisches Jahrbuch für die BRD*, 1973, p. 311.

<sup>23</sup> Import share 1973 = 37.4 per cent, see *Umweltbilanz der Deutschen Zellstoff- und Papierindustrie, Verband Deutscher Papierfabriken e.V.* (VDP), 1974, p. 1 (kindly transmitted by the Bundesministerium für Wirtschaft).

it is extremely difficult, if not impossible, to determine whether this development is caused mainly by higher pollution control costs, or by other relevant competitive factors.

Likewise, the actual consequences for foreign trade from environmental legislation cannot be gleaned from the existing estimates of cost and price increases for each individual national economy. These estimates are too inexact, since they are based on general programs rather than upon individual, concrete measures. Moreover, they permit no conclusions with regard to cost —and— price movements of individual products or industries.

In order to make exact assertions about the actual consequences of environmental measures on the Foreign Trade of Germany, not only is information on the global costs necessary, but also exact knowledge about the product-related environmental costs in Germany and in competing countries.

This, in turn, depends upon knowledge of the exact extent of emission standards; of the kind and degree of the required protective measures and of the strictness of the public agency responsible for the implementation of the measures.

An exact knowledge of the different standards is especially important because they, in spite of minimal differences in degree, often result in considerable differences in cost. This is so because the costs of stricter standards increase not linearly, but rather exponentially.<sup>24</sup> For example, the 99 per cent purification of sewage is about 50 per cent more expensive than the 90 per cent purification of sewage.<sup>25</sup>

At the same time, it would also be necessary to know the exact extent of governmental aid to support industrial efforts to install anti-pollution equipments.

Such data as would permit the making of reliable assertions concerning the influence of environmental measures on the competitive situation in foreign trade, are not readily available. That is, perhaps, due to the fact that the German environmental legislation is, as the abovementioned examples show, still in a developmental stage, just as in other countries, which precludes any exact analysis of costs.<sup>26</sup>

The lack of factual data may also be due to the special difficulties of calculating such costs, as it is not even clear which measures are to be

<sup>24</sup> See Jürgensen (*supra*, note 19), p. 108; see also Institut für gewerbliche Wasserwirtschaft und Luftreinhaltung, Kosten unterschiedlicher Anforderungen an die industrielle Abwasserbeseitigung.

<sup>25</sup> GATT Studies (*supra*, note 14), pp. 7, 8; UNCTAD (*supra*, note 9), p. 4.

<sup>26</sup> See OECD (*supra*, note 19), pp. 76, 139.

considered *environmental* for purposes of cost calculation.<sup>27</sup> The total purchasing and operating costs of special anti-pollution devices can be recorded as expenditures related to the protection of the environment. However, production changes due to addition of devices protective to the environment often combine a profit advantage with improved production conditions.

Only in the pulp and paper industry has it been undertaken at all, in spite of the above mentioned difficulties, to determine the increase in environmental-related production costs for a *large number* of industrial states resulting from existing and proposed future legislation.<sup>28</sup> The conditions for a study of this sector are propitious since the major environmental injury is limited basically only to water pollution.<sup>29</sup> Of course, the results may include a certain percentage of error, considering the already mentioned difficulties in obtaining information, but, nevertheless, they show the accuracy of the assertion that the Federal Republic of Germany, unlike many other states, has had a relatively high level of environmental protection for many years, which forced it to accept certain competitive disadvantages. These disadvantages may will diminish in the long run, since other states are increasingly compensating for their previous neglect of environmental protection and will, therefore, have to shoulder higher expenditures.<sup>30</sup> However, the same studies show that German enterprises will also encounter higher costs in the near future, a fact which perhaps is support for the assertion that pollution control costs increase progressively and not linearly.<sup>31</sup> The studies conducted by the OECD and the EEC-report by *Jürgensen* do not contain any statement about concrete impacts on international trade. The reason for this is, again, the difficulty to evaluate the influence of pollution control costs in relation to other factors, such as availability of raw materials, production capacity, labour force, transport costs, fluctuations in rate of exchange, which influence foreign trade to a great extent.

## 2. *Possible Dangers to the International Competitive Situation of German Industry in the Future*

The lack of useful information about actual quantitative impacts of environmental regulations on International Trade, renders impossible a

<sup>27</sup> Jürgensen (*supra*, note 19), p. 103.

<sup>28</sup> OECD (*supra*, note 19); Jürgensen (*supra*, note 19), p. 105 ss.; see also Ploetz, "Umweltbelastung durch die Zellstoff und Papierindustrie, Bericht über einige Arbeitsergebnisse einer OECD-Studiengruppe" in *Das Papier*, 1973, p. 181 ss.

<sup>29</sup> Jürgensen (*supra*, note 19), p. 105.

<sup>30</sup> OECD (*supra*, note 19), p. 45 ss. and p. 111 ss.; Jürgensen (*supra*, note 19), p. 106.

<sup>31</sup> Jürgensen (*supra*, note 19), p. 108.



conclusion concerning the exact extent of these impacts. However, it does not foreclose a basic discussion of their possible effects and of the resulting trade conflicts to be expected as well as of the possible solutions.

Changes impairing the competitive situation of German firms may occur principally for two reasons:

- that other trading states set up lower environmental standards;
- that other trading states relieve their enterprises financially from rising anti-pollution costs.

a) *Lower Standards by Other States.* As already indicated, the ability of German enterprises to compete internationally will be undermined by enterprises in other countries where only minimal environmental standards exist in contrast to relatively strict German norms.

This applies fully only to differing *process standards*, less to product standards. Certainly, with the latter stricter standards also lead to cost increases and endanger competitive ability in foreign markets where a high quality product is neither legally required nor demanded by the consumer. At the same time, however, product standards can act as import restrictions (so-called non-tariff trade barriers) to protect local products from foreign competition in the domestic market. The ensuing difficulties—in competitive position especially for the lesser developed countries—will be treated at a later point.

It is, however, the divergent process standards which lead to trade distortions damaging to the international competitive position of German industry.

One cannot correctly speak of “distortions” of competition in the sense of a falsification of competitive conditions in each case. Up to a certain point varying standards are justified by varying environmental, social, economic, and political conditions. Despite the development of possible competitive disadvantages divergent environmental protection costs in national economies, like differences in taxes and social welfare charges, must be viewed as an accepted fact.<sup>32</sup>

Distortions of competition occur when the abovementioned reasons for a differentiation are lacking; in particular, when countries succumb to the “misuse” of lower standards and attempt to improve their competitive

<sup>32</sup> Environmental Program of the Federal Government (*supra*, note 2), p. 22; *Council of Environmental Quality, The Second Annual Report (supra*, note 21), p. 132.

position by means of deliberately low environmental protection regulations.<sup>33</sup>

b) *Departures from the "Polluter-pays" Principle.* Distortions which can threaten the ability to compete in international trade also develop, especially where other countries deviating from the "polluter-pays" principle largely finance the costs of environmental protection with state means.

Due to the fact that the costs of environmental protection are covered by general taxes and environmental protection, subsidies, tax relief, low interest credits, and the like, are granted to the concerned enterprises, these can offer their products for prices lower than correspond to their actual costs (so-called *Export-dumping*).<sup>34</sup>

Although the "polluter-pays" principle is basically recognized by all countries of the OECD<sup>35</sup> and EEC<sup>36</sup> today, this fact alone does not prevent the member countries from permitting farreaching exceptions.

In practice this is confirmed by the fact, that today practically all countries to a greater or lesser degree tolerate exceptions from the "polluter-pays" principle.<sup>37</sup>

Even in Germany the "polluter-pays" principle is not applied without exceptions ranging from:

- tax relief through increased deductions for the costs of environmental equipment (§ 51 EStG in connection with §§ 79, 82 and 82 e EStOVO),
- low interest credits (in 1973, ERP credits to the amount of 200 million DM and 20 million DM were planned for water pollution and waste disposal facilities, respectively),<sup>38</sup>
- subsidies (in regional development areas up to 25 per cent of total investment).<sup>39</sup>

<sup>33</sup> Developing countries, Brazil among others, have openly indicated their intention to forgo environmental protection measures in the interest of economic development; see Burhenne, Hauser, "Auswirkungen der Umweltpolitik auf den Wettbewerb" in: *Umweltpolitik in Europa* (ed. by M. P. von Walterskirchen), 1973, p. 157.

<sup>34</sup> Freytag (*supra*, note 18), p. 50.

<sup>35</sup> OECD, *Recommendation of the Council on Guiding Principles Concerning the International Economic Aspects of Environmental Policies* of May 26, 1972, C (72) 128.

<sup>36</sup> See *Action Program of the EEC* (*supra*, note 5), p. 6.

<sup>37</sup> See Jürgensen (*supra*, note 19), pp. 48, 49; OECD (*supra*, note 19), pp. 117 ss. (p. 129).

<sup>38</sup> See *Umwelt*, No. 29/1974, p. 19.

<sup>39</sup> See Jürgensen (*supra*, note 19), p. 112.

The regulations of other European countries are basically similar, although they may vary in degree.<sup>40</sup>

It will be decisive, in respect to a possible threat to the competitive position of German enterprises, if other countries extend governmental subvention to the extent that the exception to the "polluter-pays" principle becomes the rule. There are indications that in some countries substantially more governmental subvention to finance environmental protection devices than in Germany, is available. In the pulp and paper industry of Sweden, for example, assistance of up to 75 per cent of the environmental protection investment costs has been granted as subsidies.<sup>41</sup>

The possibilities for such continued subsidiation exist, especially since current international trade regulations set virtually no legal limits.

Within the framework of the GATT, subventions are dealt with only in they have either export increasing or import limiting effects (Art. XVI GATT). In this case, only the duty of notification is prescribed. The question of limiting such a subsidy is only raised for discussion if the foreign trade of one or more of the contracting parties is or may be damaged seriously (Art. XVI GATT). In conclusion, subventions are quite possible within the framework of GATT.

This applies to the EEC only to a limited extent. Article 92 EEC Treaty forbids any aid granted by a member state or through state resources which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods, in so far as it affects trade between member states.

Exceptions are recognized only for important projects of common European interest (Article 92, par. 3, line b), for the development of certain economic activities or of certain economic areas (Article 92, par. 3, line c); for the aid of areas with abnormally low living standard or underemployment (Article 92, par. 3, line a), as well as for other reasons sanctioned by the Council of Ministers with qualified majority (Article 92, par. 3, line d).<sup>42</sup>

Within the scope of environmental protection in Germany, Article 92 has been relevant only where "a parafiscal duty is levied on domestic and imported goods, while the assistance itself exclusively promotes domestic production".<sup>43</sup>

<sup>40</sup> See note 37.

<sup>41</sup> See OECD (*supra*, note 19), p. 118; Ploetz (*supra*, note 28), p. 187.

<sup>42</sup> Already in 1970, the EEC Commission made low interest industrial loans available for coal mining and steel industry to combat environmental damage and pollution (Abl. C 73/20, June 18, 1970).

<sup>43</sup> Commission, Reply to the written inquiry No. 282/70; Abl. C. 1971/16; cf. Ehle-Meier, *EWG-Warenverkehr*, 1971, B, Margin No. 270.

In this connection, the EEC Commission has voiced doubts about § 2 of the German law relating to the disposal of used oil (Altölgesetz) (see p. 6), which envisaged subsidies for enterprises dealing with the collection and recycling of used oil, although in this case competition is hardly threatened, since the measures of other countries (tax exemption for the recycling of the oil) have the same end effect as the payment of subsidies.<sup>44</sup>

Summarizing, it can be concluded that Article 92 EEC Treaty at least limits the possibilities of state financed environmental protection measures, whereas the GATT provisions cannot prevent extensive deviations from the "polluter-pays" principle. One must, therefore, reckon with the possible deterioration of competitive position as a result of dissimilar state financial assistance in the area of environmental protection.

### 3. *Amelioration of the Detrimental Effects of Environmental Protection Measures by the Positive Effects*

The above described possibilities of changes, detrimental to the international competitive situation, may be contrasted with the positive effects of stringent environmental protection measures. The latter ameliorate the negative effects, even if they do not completely compensate for them.

Those enterprises which were forced to convert to production methods not harmful to the environment at an early stage, will achieve a long term competitive advantage.<sup>45</sup> This advantage will be obvious, when other countries take similarly strict measures, as may be seen in the following example:

In all member states of the EEC today, many different methods of steel production are employed. From an environmental point of view, these methods are not equally harmful. For example, the Thomas steel method requires the greatest expenditures in order to comply with any given

<sup>44</sup> See Burhenne, Irvin, *Ecology Law Quarterly*, 1971, p. 471; Burhenne, Hauser (*supra*, note 33), p. 163, see also *EEC Commission*, Abl. C 21/2 of March 3, 1972; Burhenne, Schoenbaum, *Natural Resources Journal* 1973, p. 494. On March 20, 1974, the Commission proposed a directive for the harmonization of differing national regulations which basically assumes the principle of levying surcharges on the product and subsidizing with the money collected those undertakings that collect and dispose used oil, embodied in the German law relating to the disposal of used oil, see Bull. EG 3/1974, No. 2107.

<sup>45</sup> Jürgensen (*supra*, note 19), p. 142; see also Walter, "Environmental Control and Patterns of International Trade and Investment: An Emerging Policy Issue" *Banca Nazionale Del Lavoro Quarterly Review*, 1972, p. 82 (91); *Council on Environmental Quality, The Second Annual Report* (*supra*, note 21), p. 133; *OECD, Economic Implications of Environmental Policies* (not yet published).

emission standard. This applies above all to Germany, less to France and Belgium.<sup>46</sup> The costs are lower with the so-called SM-method and with the electro steel method (1.50 \$/t). Of all the EEC member countries, Great Britain used the SM-method most in 1971 (47% of production); Italy used the electro steel method most (40% of production). The oxygen-steel method effects the lowest environmental costs (1 \$/t). This method is the most economical and has the most potential. Germany employs this method in over 50% of production; the Netherlands 50%; Great Britain 32%.<sup>47</sup>

It can be concluded from this data that in environmental terms, the competitive position in the future will shift in favour of Germany, the Netherlands and, in part, also Belgium. The minimal use of the Thomas-steel method in Germany is explained by the fact that Germany (in particular the state of Northrhine-Westphalia) introduced at an early date strict environmental measures. The Thomas-steel method made compliance with these measures difficult and, thus, the introduction of other, more environmentally beneficial techniques, was encouraged.

The example of the conclusion from the conversion from the Thomas-steel method to other methods of production, has also showed that the introduction of environmentally more favourable methods is often accompanied by increased profitability.

Competitive advantages also accrue to those branches of industry which convert to environmentally friendly products at an early date. Contracts for the construction of industrial plants in Germany today include, e.g., the delivery of air purification devices.<sup>48</sup> Countries which have not developed progressive devices will, thus, have to expect disadvantages when exporting industrial devices to Germany.

The enforcement of strict environmental protection measures and the research and development of new techniques connected therewith can, in the final analysis, be absolutely to the advantage of the competitive position of the branch of industry affected.

New markets for products and plants protective of the environment exist already.<sup>49</sup> The trade advantages resulting from this productive capacity will have a positive effect on the German balance of trade and payments.

Summarizing, it can be said that, with regard to the numerous positive effects of stringent environmental measures on German trade, the fear

<sup>46</sup> In 1971, 35 per cent of the total production in each country was by the Thomas-steel method.

<sup>47</sup> Jürgensen (*supra*, note 19), pp. 128 ss.

<sup>48</sup> Projet group "Reinhaltung der Luft" in *Materialien* (*supra*, note 13), p. 205.

<sup>49</sup> See UNCTAD (*supra*, note 9), p. 6; *Blick in die Wirtschaft*, Supplement to *FAZ*, April 10, 1974; *Süddeutsche Zeitung*, April 4, 1974.

that divergent environmental standards would lead to substantial disadvantages in competition seems, at least in the long run, doubtful.<sup>50</sup>

These middle-to-long terms trends should not conceal the fact that in individual short-term situations there may be perceptible encroachments on Germany's competitive ability.<sup>51</sup>

### III. TRANSFER OF GERMAN INDUSTRIES TO COUNTRIES WITH LOWER ENVIRONMENTAL STANDARDS AS A POSSIBLE REACTION TO THE THREAT TO THEIR COMPETITIVE POSITION

The substantial differences between environmental measures of the Federal Republic of Germany and less industrialized nations (particularly the developing countries), make it conceivable that in the case of new investments German enterprises will try to avoid higher environmental protection costs (and the problems of competition caused thereby) by transferring their production facilities to countries with less stringent environmental standards. Concerns have already been expressed in the Federal Republic to the effect that it might come to an emigration of German business to "pollution heavens".<sup>52</sup>

To this concern one might first reply that a transfer of production facilities can make a meaningful contribution to an effective world-wide allocation of resources. From an economic point of view, national fears resulting from a departure of local industry would only be justified if the competitive position of domestic industry, in comparison to that of the expatriate firms, was negatively affected, or if a higher rate of unemployment could be expected.

From an environmental point of view, the danger of growing global pollution could be a reason for measures countering the transfer of industries.

In spite of frequent mention in the literature,<sup>53</sup> it appears that transfers of production facilities because of increasing pollution control costs are, at present, accorded little importance by industry and that the situation will not change in the future.

Environmental protection costs are one factor among many in the location of production facilities. Other factors play a larger role: marketing

<sup>50</sup> See Rehbinder, *Grundfragen des Umweltrechts*, ZRP, 1970, p. 250 (253).

<sup>51</sup> Jürgensen (*supra*, note 19), p. 42; see Ploetz (*supra*, note 28), p. 187.

<sup>52</sup> Among others, State Minister Genscher, *DZ*, August 27, 1971; Chancellor Brandt, *FAZ*, June 27, 1972.

<sup>53</sup> See, e.g., Rehbinder, *Politische und rechtliche Probleme des Verursacherprinzips*, 1973, p. 70; Zimmer (*supra*, note 20), p. 210; Burhenne, Hauser (*supra*, note 33), p. 156.

possibilities, raw materials, political certainty, wages, taxes, and the like. Currently, pollution control costs, at most, lend support to a decision to build production facilities abroad. They are usually not, however, the basis for such a decision.

There are no known cases in the Federal Republic of Germany in which environmental motives played a determining role in foreign investment. A survey of German firms concerning their motives for investing in Brazil failed to reveal the slightest indication of environmental motivation.<sup>54</sup>

One may also ask if environmental considerations will determine foreign investment to a greater extent in the future. It is particularly in the present "pollution heavens" as, for example, Brazil, that the introduction and enforcement of environmental protection measures will have to be reckoned with in the near future, simply because the urgency of the problem demands it.<sup>55</sup> The necessity for strict environmental measures arises within a very short period, since for reasons of infrastructure and labour force, foreign industry congregates in the most developed areas of a country, and environmental damage cumulates quickly.

Altogether, it appears rather doubtful that the problem of environmentally motivated industrial transfers by German enterprises will be of great practical importance in the future.<sup>56</sup>

#### IV. POSSIBLE MEASURES TO AVOID COMPETITIVE DISADVANTAGES

##### 1. *Foreign Trade Intervention*

In case the competitive ability of the Federal Republic in international trade is substantially impaired by diverging environmental protection measures of other countries, it could alleviate the then ensuing import pressure by foreign trade intervention in the form of import levies or quantitative restrictions. Direct or indirect export subsidies could be used to compensate for disadvantages in export.<sup>57</sup>

The possibilities of equalizing by state intervention in foreign trade

<sup>54</sup> Jolowicz, *Erfahrungen ausländischer Investoren in Brasilien*, 1970, p. 10 ss.

<sup>55</sup> In December, 1973, a pulp factory, completed in 1972, at a cost of US \$76 million, was closed because of insufficient measures to combat air pollution, see *Deutsche Überseeische Bank*, "Wirtschaftsberichte über die lateinamerikanischen Länder", Dec. 1973, p. 24.

<sup>56</sup> Also in basic agreement UNCTAD (*supra*, note 9), p. 16.

<sup>57</sup> See Reh binder (*supra*, note 53), p. 70; Zimmer (*supra*, note 20), p. 212.

competitive disadvantages caused by different environmental protection measures are, however, limited by international trade obligations.

According to GATT regulations, applicable to the Federal Republic of Germany in trade with states outside the EEC, quantitative restrictions are not permissible (Article XI GATT). Exceptions are possible only upon the narrow condition of protecting the nation's balance of payments (Article XII GATT).

Import duties are possible in principle but problematical. Import duties which protect domestic industry are exactly what GATT seeks to prevent.<sup>58</sup> Differing national wages, social insurance costs, and taxes have an influence similar to that of environmental standards or industrial cost structures. They do not, however, justify import duties, even if they might appear unreasonably low in individual cases.

Moreover, import duties are difficult to implement.<sup>59</sup> In the first place, there are difficulties in setting an appropriate rate. In doing so, the extent to which the lower import price of a product can be attributed to lower environmental costs would have to be determined. Yet this determination is almost impossible to make, above all because environmental protection costs differ from country to country. Every flat rate would risk the danger of over-compensation.<sup>60</sup>

In the second place, the imposition of import charges is contrary to the tariff "bindings" which the Federal Republic has negotiated under Article II GATT, with other contracting parties to the organization during the course of multilateral tariff conferences (so-called Tariff Reduction Rounds).<sup>61</sup> According to Article XXVIII GATT, the obligation to maintain the lowered tariff rates is only binding for three years. After this point, each party may modify its tariff concessions. This also includes the possibility of introducing an "environmental charge". In such a case, however, a country desiring to do so would have to negotiate an agreement with the contracting parties interested in exporting the affected goods to that state (Article XXVIII par. 1, p. 2, GATT). In addition, there is also the general limitation that by raising an individual tariff the general level of tariffs may not rise (Article XXVIII, par. 2, GATT). In the case of an environmental charge, therefore, one would have to expect to grant adequate compensation in the form of trade concessions related

<sup>58</sup> GATT Studies, p. 16; *OECD, Recommendation of the Council*, May 26, 1972; Rehinder (*supra*, note 53), aaO.; Zimmer (*supra*, note 20), aaO.

<sup>59</sup> Zimmer (*supra*, note 20), p. 211.

<sup>60</sup> Zimmer (*supra*, note 20), aaO.; UNCTAD (*supra*, note 9), p. 12; Walter (*supra*, note 45), p. 98; GATT Studies (*supra*, note 14), p. 17.

<sup>61</sup> *Geneva Protocol*, June 30, 1967 (*GATT Document L/2815*, July 17, 1967); see also *GATT Studies* (*supra*, note 14), p. 17.



to other goods. This might prove difficult since the levels of tariffs on unaffected goods may not suffice to allow for the required concessions.<sup>62</sup>

Due to GATT regulations, the introduction of import surcharges to equalize the competitive disadvantages of domestic industry, can be dismissed as a practical alternative. Environmental import surcharges would mean, moreover, a decisive retreat from the path of protectionism to world free trade and efficient international allocation of resources.<sup>63</sup>

Export subsidies are also basically incompatible with GATT regulations. This applies at least to the Federal Republic of Germany and 13 other key industrial states. According to Article XVI, par. 4, GATT, which went into effect for the above countries on December 14, 1968, export subsidies (direct or indirect) may not be granted if they reduce the foreign selling price of goods below the domestic selling price.<sup>64</sup>

Only the relief from internal taxes levied on products themselves is permissible.<sup>65</sup>

This does not include those *production* costs upon their export which arise as a result of meeting environmental protection levies.<sup>66</sup> Thus for example, an exemption from Germany's planned sewage charges would not be permissible within GATT, since this is a tax upon a production process and not upon a particular product.

There remains indirectly the possibility of general industrial subsidies, which are dealt with incompletely in GATT (*cf. supra b*), *Departures from the "Polluter-Pays" Principle*, with the effect of assisting the export capabilities.

This possibility of indirect export aids is not available to the Federal Republic of Germany in relation to other member states of the EEC, since Article 92 EEC Treaty, clearly forbids governmental assistance for the purpose of equalizing differing environmental protection costs.

The remaining measures affecting foreign trade discussed above are, in any event, precluded within the framework of the EEC. Tariffs and charges having the effect of tariffs<sup>67</sup> are inadmissible (Article 9 ss.

<sup>62</sup> *GATT Studies* (*supra*, note 14), aaO; Reh binder (*supra*, note 53), p. 73; Zimmer (*supra*, note 20), p. 212.

<sup>63</sup> Burhenne, Hauser (*supra*, note 33), p. 158; Zimmer (*supra*, note 20), p. 212.

<sup>64</sup> See Zimmer (*supra*, note 20), p. 212; Reh binder (*supra*, note 53), p. 93; Walter (*supra*, note 45), p. 100.

<sup>65</sup> See also § 36 *BImSchG* which includes an exemption for quality requirements for those goods determined for export; see also *infra*, p. 34.

<sup>66</sup> See Reh binder (*supra*, note 53), p. 73.

<sup>67</sup> The European Court of Justice has held that phytosanitary testing fees, in connection with the import of agricultural products, are unlawful charges having the same effect as tariffs, see *AWD* 1974, p. 98.

EEC Treaty) against other member states as are quantitative restrictions and measures having the same effect (Article 30 ss. EEC Treaty).

All in all, state foreign trade interventions for the purpose of correcting unequal protection measures and the ensuing disadvantages to competition, are not a viable possibility.

## 2. *Harmonization of Environmental Measures (Process Standards)*

In order to prevent trade distortions, it will be in the long term particularly necessary to regulate the enforcement of the "polluter pays" principle and its exceptions by multilateral treaty, as well as to harmonize process standards—in so far as valid reasons for a differentiation do not exist. This applies particularly to the Federal Republic of Germany and comparable industrialized countries.<sup>68</sup>

Concrete results will not be available in the near future, since up to this point only recommendations<sup>69</sup> and programs<sup>70</sup> have been presented.<sup>71</sup>

One of the few exceptions is the Draft of the European Convention for the Protection of International Watercourses against pollution, which sets forth minimum standards for water purity.<sup>72</sup> By contrast, efforts to harmonize *process*-related environmental standards within the EEC, have as yet not gone beyond the already mentioned Action Program. As stated, its goal is to establish common exceptions to the "polluter-pays" principle,<sup>73</sup> to formulate unified environmental quality aims,<sup>74</sup> and to initiate an ex-

<sup>68</sup> A harmonization of process standards outside the ranks of the industrialized nations, particularly in relation to the lesser developed countries, appears not to be neither meaningful nor possible in the near future. Therefore, the recommendations of the *UN Stockholm Conference on Man and Environment* of June 5-16, 1972, are for an international harmonization of process standards only in cases of transfrontier-pollution. See "Recommendation 103 c, Stockholmer Resultate, Beiträge zur Umweltgestaltung", Vol. A 10, 1973, p. 217.

<sup>69</sup> See *OECD, Recommendation of the Council*, May 26, 1972, on Guiding Principles Concerning International Economic Aspects of Environmental Policies, C (72) 128 and *Annex*.

<sup>70</sup> See *Action Program of the EEC* (*supra*, note 5), p. 6.

<sup>71</sup> Multilateral as well as bilateral agreements to limit pollution, which in individual cases also contribute indirectly to a standardization of conditions of competition, are disregarded here.

<sup>72</sup> Overview and historical development in Golsong, "Probleme einer europäischen Gewässerschutzkonvention" Lecture on the occasion of the meeting of the "Arbeitskreis Europäische Integration e.V." held at the Europa-Institut of the University of Mannheim, Nov. 8-16, 1973.

<sup>73</sup> *Action Program of the EEC* (*supra*, note 5), p. 32.

<sup>74</sup> *Action Program of the EEC* (*supra*, note 5), p. 16.

change of information concerning the existing measures and means of implementing the standards within the member states.<sup>75</sup>

In conjunction with this program, the EEC Commission has, however, worked out the basic provisions for regulations governing exceptions to the "polluter-pays" principle.<sup>76</sup>

Minimum standards already exist within the European Communities in matters where trade is less a factor but where environmental danger is particularly great. Concrete provisions are contained in the Treaty for the Establishment of the European Atomic Community (Euratom) of March 25, 1957 (BGBl. II p. 104, as amended April 23, 1970, BGBl. II p. 1282). Articles 30 ss. Euratom authorize the Council of Ministers upon recommendation by the Commission to establish community-wide regulations for maximum permissible doses of atomic radiation.<sup>77</sup> These regulations could well serve as a model for future minimum process standards within the EEC.

#### V. "NON-TARIFF TRADE BARRIERS" RESULTING FROM PRODUCT STANDARDS

##### 1. Possible Effects of Divergent Product Standards

Also, in the area of product standards diverging national environmental measures are the rule, unified norms, the exception.<sup>78</sup> The particularly strict product standards of the Federal Republic of Germany cause, as do its higher process standards, initially higher production costs<sup>79</sup> and prices,

<sup>75</sup> *Action Program of the EEC* (*supra*, note 5), p. 31.

<sup>76</sup> Communication of the Commission and proposal of a recommendation relating to the employment of the "polluter-pays" principle, March 7, 1974 (Abl. C 68/1, June 6, 1974).

<sup>77</sup> Concerning the active efforts to harmonize in this area see Schlosser, "Umweltpolitik in Europa" in: *Umweltpolitik in Europa* (ed. by M. P. v. Walterskirchen), 1973, p. 259 (267).

<sup>78</sup> Concerning exceptions resulting from harmonization within the *European Community* see *infra*, p. 46; *Council of Europe*: "Agreement on the limitation of detergents and cleansers", June 9, 1969 (Gesetz, May 26, 1972 [BGBl. II, p. 533], in force in the Federal Republic since March 2, 1973); *OECD*: expressly with regard to easing international trade; resolution concerning the adoption of ray-protection standards for watches with radioactive luminous colors. This is of binding effect in the Federal Republic as a result of the Law of July 22, 1969 (BGBl. II, 1309); now § 18 par. 1 No. 4 of the Law concerning the peaceful use of atomic energy and protection from its dangers, December 23, 1959 (BGBl. II, p. 814).

<sup>79</sup> According to statements of the oil-industry, the investment costs of meeting the requirements of the "Benzin-Bleigesetz" amounted to 50 million DM as to 1/1/1972 and further 100 million DM as to 1/1/1976, cf. *Materialien zum Umweltprogramm der Bundesregierung* (*supra*, note 13), p. 626.

and create difficulties for the sale of German products in foreign markets, in which a high product quality is neither legally required nor demanded by the consumer.

These difficulties in penetrating foreign markets can be relatively easily resolved by requiring strict product standards for the domestic market only.

§ 36 “Bundesimmissionenschutzgesetz” (BImSchG) permits departure from the qualitative requirements of §§ 34 and 35 BImSchG for the production and commerce in products, materials, and fuels, to the extent that these objects are destined for foreign commerce.<sup>80</sup>

The crucial difference between product and process standards is that strict German process standards create competitive disadvantages for domestic firms in foreign markets, while strict German product standards, in contrast, affect domestic firms less than they do foreign firms seeking to penetrate the domestic market.

The problems which arise as a result of meeting product standards, are by no means limited to environmental quality standards. In principle, diverging national laws and regulations of all kinds may lead to difficulties in foreign trade, discrimination against foreign firms, and distortion of competition.

Standards differing from country to country splinter a homogenous world market into regional markets and lead to the development of so-called *non-tariff trade barriers*. Enterprises of exporting countries must conform to multitudinous, conflicting product standards. Even if this is technically possible, it imposes a costly product diversification, in order to maintain export capacity.

As a result, competitive disadvantages ensue for firms heavily involved in export trade, since unlike their less export-oriented foreign competition, which can spread the costs of meeting new product standards over the entire production, they are forced either to absorb these costs or to impose them only on that part of their production destined for the particular foreign market.

## *2. Actual Effects of Product Standards and Possibilities of Overcoming these Effects in Trade with States Outside the European Community*

a) *Actual Effects.* In the area of environmental protection, the relatively stricter American automobile exhaust regulations, for example, have

<sup>80</sup> These norms are under criticism because they permit the pollution of other countries, see Simitis, *Haftungsprobleme beim Umweltschutz, Versicherungsrecht*, 1972, p. 1087 (1088).

proved detrimental to competition by German enterprises.<sup>81</sup> German car producers have suffered disadvantages since, unlike their American competitors, they have not been able to spread increased costs required to meet U. S. standards over their total production but only over that portion determined for export to the USA.

German product standards, in turn, pose difficulties for numerous developing countries because of the high quality requirements. The import of agricultural products in particular is complicated by German food laws which set, for example, stringent limits for pesticide content. The problems here are somewhat different from other cases because it is not so much a question of competitive difficulties arising from costs of meeting increased standards as a question of establishing the basic prerequisites for producing goods which can meet German standards at all. This is particularly the case where the materials used for production (DDT, for example) cannot yet be replaced by others.<sup>82</sup>

b) *Legality of Trade Inhibiting Product Standards.* Legally, the American autoemission standards, as well as the German food regulations, are unobjectionable.

In principle, Article XI GATT strictly forbids, of course, quantitative import restrictions and other import limitations having the same effect—and the above mentioned product standards can well fall into this category.

By way of exception, however, measures for the protection of humans, animals, and plants are permitted to the extent that their promulgation does not constitute a disguised restriction on international trade (Art. XX GATT).

Environmental protection norms differ only slightly from such measures. Accordingly, it is generally recognized that they should be treated in similar fashion.<sup>83</sup>

c) *Possibilities of Reducing Trade Obstacles.* Whereas a harmonization of the corresponding German measures with American autoemission regulations might be considered a possible means of resolving the problems mentioned above, this kind of solution appears not only problematical in relation to developing countries, but, moreover, inadequate.<sup>84</sup>

<sup>81</sup> Overview of the diverging norms in: Rat der Sachverständigen, *Auto und Umwelt*, 1973, p. 50.

<sup>82</sup> See UNCTAD (*supra*, note 9, p. 6; Rehinder (*supra*, note 53), p. 73; Wassermann, *Journal of World Trade Law*, No. 2, 1974, p. 214.

<sup>83</sup> See, e.g., *GATT Studies* (*supra*, note 14), p. 16.

<sup>84</sup> See, however, "Recommendation 103 e" of the Stockholm Conference on Man and Environment in which a harmonization is recommended in order not to impair

A harmonization of product standards on the basis of strict quality requirements would certainly resolve the problem of splintering the world market into regional markets; it would not, however, resolve the difficulties of the *developing countries* in trying to meet these high quality requirements. Strict world-wide product standards would widen rather than close the gap between industrial and developing nations. The solution, however, can certainly not be found in low product standards. A reduction of standards is simply not feasible for Germany, since it would endanger its efforts to effectively protect its own environment.<sup>85</sup>

A solution to the problem can only be found by cooperating with the developing countries and providing technical, economic, and scientific assistance in order to cushion the effects of strict environmental product standards.

Such cooperation may be realized within the framework of the UN Action Program (UNEP), employing as guidelines the recommendations of the UN Stockholm Conference of 1972.

Basically speaking, the following possibilities arise:

- An increased flow of information, in particular extensive and well-timed explanations of those environmental projects which may have disadvantageous effects on developing countries.<sup>86</sup> Particularly in the cases in which measures are taken to raise the standards for imported goods, the effects of such measures on the exporting countries should be examined and the states affected made aware of the implementation of these measures in good time.<sup>87</sup>
- Legal measures obligating governments of industrialized countries to file impact statements concerning every measure possibly affecting the ecological interests of less developed countries. If, for example (in context with the application for governmental foreign investment

the access of the developing countries to the markets of the industrial nations. See "Stockholmer Resultate" (*supra*, note 68), p. 218.

<sup>85</sup> See Rehbinder (*supra*, note 53), p. 74.

<sup>86</sup> See also "Recommendation 103 b" of the *Stockholm Conference for the Protection of the Environment* (*supra*, note 68).

<sup>87</sup> Resolutions according with this item were adopted by the *Second International Parliamentarian Conference on Environmental Questions* in Vienna 1972, see *Der Parlamentarische Standpunkt, Berichte über die Zweite Internationale Parlamentarierkonferenz zu Umweltfragen, Beiträge zur Umweltgestaltung*, Vol. 9, 1973; resolution by WHO 5/25/1970, Doc. No. 184; see also the *Agreement of the Representatives of the Governments of the Member States meeting in Council* of March 5, 1973, on information for the Commission and for the member states, with a view to possible harmonization throughout the communities, concerning urgent measure for the protection of the environment (see *infra*, note 100); for an elucidation of controversial trade questions GATT has created by resolution of Nov. 9, 1971 and ad-hoc group (GATT Doc. C/W/194 Rev. 1 of Nov. 9, 1971); see also Zimmer (*supra*, note 20), p. 213; "Recommendation 103 c" of the Stockholm Conference (*supra*, note 68).

aid by an industrial enterprise), an impact statement reveals that a project to be undertaken will create substantial environmental injury to a developing country, no financial assistance should be granted the company in support of its plans, unless and until the project is modified in such a way as to modify the adverse environmental impact.<sup>88</sup>

- Increased financial assistance to equalize, among other things, the disadvantages for exporting states ensuing from strict product standards.<sup>89</sup>
- Technical assistance, for example, support of environmentally relevant development-related research, and delivery of technical know-how, with the goal of introducing improved production methods.<sup>90</sup>

### 3. *Actual Effects of Product Standards Within the EEC and Possibilities of Overcoming Them*

a) *Effects of Product Standards.* Even today there remain numerous conflicting legal and administrative regulations among the member states of the European Communities, which act as non tariff trade barriers, and continue to hamper the creation of a truly common market.

In the area of environmental protection, the German "Benzin-Bleigesetz" has been subject to particular criticism as a distortion of competition. In comparison to the regulations of other member states, this law sets particularly strict requirements for the reduction of gasoline lead content.

The law places more of a burden on foreign enterprises than on German ones, because after January 1, 1976, foreign firms will have to produce a special grade of gasoline to meet the particular requirements demanded for the German market. The necessary costs of meeting these requirements will mean a greater burden for foreign enterprises than for German ones, since the necessary modifications in the production process will only concern that part of their output destined for the German market, whereas German industry can spread the costs over a greater portion of production.<sup>91</sup>

<sup>88</sup> Concerning the question of impact statements see Strausberg, "The National Environmental Policy Act and the Agency for International Development" 7 *Int. Law.* 46/1973.

<sup>89</sup> See the controversial "Recommendation 103 b" demanding "compensation" (*supra*, note 68) aaO.; for a discussion of this resolution see Schneider-Sawiris, *The Concept of Compensation in the Field of Trade and Environment*, 1973.

<sup>90</sup> See "Recommendation 103 b" (*supra*, note 68); see also Majochi, "The Impact of Environmental Measures on International Trade, Some Policy Issues" in *Rivista Internazionale di Scienze Economiche e Commerciale*, 1972, pp. 458 ss; UNCTAD (*supra*, note 9), pp. 17, 18.

<sup>91</sup> See Ehlermann, "Die Bedeutung des Art. 36 EWGV für die Freiheit des Warenverkehrs", *Europarecht*, 1973, p. 1 (10); Reh binder (*supra*, note 53), p. 74.

In addition, it has been argued that the “Benzin-Bleigesetz” will have the effect of limiting trade in motor vehicles,<sup>92</sup> since the limitation of lead content to 0.15 g/l requires technical modifications on high compression engines. This, again, will affect foreign enterprises in particular.<sup>93</sup>

b) *Legality of Production Standards.* The “Benzin-Bleigesetz” is not unobjectionable under Article 30 ss. EEC Treaty. According to these provisions, member states are obligated neither to promulgate nor maintain in force measures which have the same effect as quantitative import and export restrictions. According to the Directives of the EEC Commission, particularly the Directive 70/50 of Dec. 22, 1969, based on Article 33, par. 7 EEC Treaty (Abl. L 13/29 of January 19, 1970), such measures include those which (1) regulate form, size, weight, composition or packaging, (2) are applicable to domestic and imported goods alike, and (3) have a limiting effect upon trade, more than that of the usual regulations. A measure with the same effect as a quantitative restriction is present when the distortion of trade is out of proportion to the desired goal, and when the same result can be achieved by other means having less effect on the exchange of goods. In principle, environmental protection product standards may well fall within the proscribed measures.

According to Article 36 EEC Treaty measures having the same effect as quantitative restrictions are permissible if they can be justified on grounds of protecting the health and life of humans, animals or plants.

This provision recalls Article XX b GATT; it is, however, narrower. In the case of Article 36, it is not sufficient simply to invoke one of the enumerated legal interests protected by the treaty. Rather, it must be established that the particular regulation is necessary for the protection of the allegedly threatened legal interest. In view of the exceptional character of Article 36, strict standards of proof are imposed: the measure must prove itself necessary when the treaty goals are weighed against the measure’s desired purpose. At the same time there must be no other reasonable regulatory measures available.<sup>94</sup>

The conflict between the EEC Commission and the government of the Federal Republic over the “Benzin-Bleigesetz”, demonstrates the interpretation difficulties arising from these criteria, particularly in view of the balance to be struck between political and economic goals on the one hand, and effective environmental protection on the other.

<sup>92</sup> The West German government opposed this view, cf. Rehinder (*supra*, note 53).

<sup>93</sup> See note 91.

<sup>94</sup> Ehle-Meier (*supra*, note 43), 1971, B Marg. No. 141; Ehlermann, *Wirtschaftsrecht*, 1973, Beseitigung der mengenmässigen Beschränkungen und Massnahmen gleicher Wirkung zwischen den Mitgliedstaaten nach dem EWG-Vertrag, p. 181; *Europarecht* (*supra*, note 91), p. 10.



In the view of the EEC Commission, the regulations promulgated under the "Benzin-Bleigesetz" conflict with Articles 30 ss. EEC Treaty, because the provisions impose unjustified new restrictions on trade in gasoline and motor vehicles between the Federal Republic of Germany and the other member states.<sup>95</sup> The Commission is of the opinion that the trade limitations arising from the "Benzin-Bleigesetz" go beyond the usual regulations:

The measure is out of proportion to the desired goal, since lead is only one element of air pollution. In addition, the goal of the regulations could be achieved by other means, such as the incorporation of lead retention devices. All in all, the Commission does not consider the "Benzin-Bleigesetz" regulations as justifiable within the terms of the treaty.

The German government has asserted, in reply, that these measures are necessary for the effective protection of the environment, and that, at the same time, the law will cause only insignificant economic and trade consequences.<sup>96</sup> Foreign producers remain in the position to market the required fuel. Engine production will also not be affected since the octane rating can be maintained even with a lower lead content. Other measures to limit the lead content are not feasible, given the present state of the article.

The differing opinions of the EEC Commission and the German government have not been resolved. The Commission has refrained from commencing an action before the European Court of Justice and has rather set forth a suggested guideline for the harmonization of member state fuel regulations (Proposal for a Council Directive on the Approximation of the Laws of the Member States Relating to the Composition of Motor Fuels of December 17, 1973, *Abl. C* 8/28, January 31, 1974). It proposes a limitation of the lead content to 0.4 g/l after January 1, 1976, and to 0.15 g/l after January 1, 1978. Extra gasoline will retain a lead content of 0.4 g/l. The guidelines of the proposed directive thereby remain less stringent than the requirements of the "Benzin-Bleigesetz".

It is not the aim of the author to suggest which of the two proponents' views is preferable. A decision in an action between the parties would depend basically upon whether the measures of the "Benzin-Bleigesetz" are absolutely necessary for the protection of health. This question must be considered in the context of both Article 36 and Articles 30 ss. of the EEC Treaty. In particular, under the latter provisions a decision must be made whether these are measures "with the same effect" as quantitative restrictions. Logically, the first question to answer is whether under

<sup>95</sup> See Ehlermann, *Europarecht* (*supra*, note 91), p. 10; Reh binder (*supra*, note 53), p. 74.

<sup>96</sup> According to Reh binder (*supra*, note 53); see also *Umwelt* No. 30/1974, p. 11.

Articles 30 ss., the provisions of the statute constitute a “measure having the same effect” as a quantitative restriction, since only then would the question of an application of the saving clause of Article 36 even arise.

If it is assumed that the statute is in fact a measure “having the same effect” as a quantitative EEC Treaty restriction, so that Articles 30 ss. apply, this means that Article 36 cannot apply,<sup>97</sup> since the criteria of Directive 70/50 for the definition of a measure “having the same effect” are essentially the same as those for determining whether a measure is justifiable under Article 36.

The question in both cases is whether the consequences of the measures are not out of proportion to the desired goal, and whether that goal might not be achieved by other means.

Without having to elaborate these questions further, it is already clear that, in consideration of the narrow limits of measures admissible under Articles 30 ss., trade-damaging consequences of permissible environmentally oriented product standards can largely be avoided within the framework of the EEC.

This means that an effective national environmental program can only be drawn within very narrow limits.<sup>98</sup>

c) *Possibilities for Elimination of Trade Restrictions.* To the extent that divergent product standards are not already covered by Articles 30 ss., the possibility of harmonization of national laws exists as a means of eliminating their trade distorting effects.

The EEC Treaty contains in Article 100, the basic jurisdictional norm authorizing the approximation of such provisions laid down by law, regulation or administrative action in member states, as directly affecting the establishment or functioning of the Common Market. Environmental measures would also be included here. Besides, Articles 101 and 102 EEC Treaty provide legal grounds for eliminating distortions in competition. Articles 101 and 102 concern, however, only specific distortions<sup>99</sup> and have hitherto been of practically no importance in the harmonization of environmental norms.

In the case of new laws, efforts toward harmonization will be supported by an exchange of information and standstill agreement. According to this

<sup>97</sup> Ehlermann, *Wirtschaftsrecht*, 1973 (*supra*, note 94), p. 176.

<sup>98</sup> Burhenne, Hauser (*supra*, note 33), p. 162.

<sup>99</sup> See First Communication of the Commission relating to the protection of the environment, printed as *BT-Drucksache VI 2135*: Distortions in competition in the sense of §§ 101, 102 are present when in a particular member state some enterprises or industrial sectors — in contrast to other economic enterprises of the same country — are given preference or discriminated against, and when in other countries no similar means of treatment can be observed.

agreement, the Commission and the other member states shall be informed as soon as possible of any draft legislation and of any international initiative concerning the protection or improvement of the environment.<sup>100</sup> The Commission may then take up the matter itself and present a proposed directive within the next three months. Should the Council not approve the proposal, the individual member state regains its freedom of action.

In an effort to harmonize regulations raising non-tariff trade barriers, the Council of Ministers passed on May 25, 1969, a "General Program to Remove Technical Barriers to Trade" (Abl. 76/1, June 17, 1969), based on Article 100. A supplementary measure of March 21, 1972, extended the program to include specific questions of environmental protection in particular. In the process of carrying out this program, several directives related to environmental protection were adopted; for example:

- Council Directive of Feb. 6, 1970 (Abl. L 42/16, Feb. 23, 1970), on the approximation of the laws of the member states relating to the permissible sound level and the exhaust system of motor vehicles, as amended Nov. 7, 1973 (Abl. L 321, Nov. 22, 1973).
- Council Directive of March 20, 1970 (Abl. L 76/1), on the approximation of the laws of the member states relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles.
- Council Directive of Aug. 2, 1972, on the approximation of the laws of the member states relating to the measures to be taken against the emission of pollutants from diesel engines for use in motor vehicles (Abl. L 190/1).
- Council Directive of Nov. 12, 1973, on the approximation of the laws of the member states relating to measures concerning the degradability of detergents (Abl. L 347, Dec. 17, 1973).

d) *The Negative Effects of Establishing Like Competitive Conditions on National Efforts for the Protection of the Environment.* The harmonization of national laws within the framework of Article 100, is basically to be welcomed since the negative consequences of diverging environmental measures on trade can thus be avoided. But there is, nevertheless, still the danger that an effective national effort to protect the environment will be hindered.

This danger has already been seen in relation to the narrow confines of Articles 30 ss., which limit national environmental protection provisions.

<sup>100</sup> Agreement of the representatives of the governments of the member states, meeting in Council of March 5, 1973, on information for the Commission and for the member states, with a view to possible harmonization throughout the Communities of urgent measures concerning the protection of the environment (Abl. C 9/1, March 15, 1973).

To a certain extent, even Article 92 conflicts with a progressive national environmental protection policy, as the EEC Commission criticism of the German "Altölgesetz" shows. The results of harmonizing environmental provisions within the EEC up to now further confirm that avoidance of negative effects of environmental measures on trade leads, in turn, to unfavourable consequences for environmental protection measures themselves. A not insubstantial portion of the environmentally related directives adopted by the Council of Ministers, are less strict than the corresponding product standards of the Federal Republic of Germany.

For example, the guidelines of the German Ministry of Transportation,<sup>101</sup> issued under § 49 "Strassenverkehrszulassungsordnung" (StVZO),<sup>102</sup> set maximum sound standards for motor vehicles under 70 horsepower (DIN) at 80 dB (A) and for cars of more than 70 HP (DIN) at 84 dB (A).

In contrast, the Council Directive of Feb. 6, 1970, went below these figures in part. It sets a general figure of 82 dB (A).

The Council Directive of March 20, 1970, concerning air pollution from motor vehicle engine exhaust was not on a par with the German regulation (§ 47 StVZO and appendix XIV thereto). It was both too little and too late. It only came into full effect on Oct. 1, 1971 (the German regulation on Oct. 14, 1970), and the permissible emissions were based on the weight of the vehicle and not on the amount of fuel used.<sup>103</sup>

The Directive proposed by the EEC Commission to limit fuel lead content, is the latest link in the chain of directives and proposals which is contrary to German efforts to achieve effective environmental protection.

The reason why joint progressive measures are not often possible at the common market level (for example, harmonization with the standards of the German "Benzin-Bleigesetz"), is due in part to the principle of unanimity which applies to the promulgation of directives under Article 100.

This principle has the net effect that harmonization comes about either not at all or, often, only on the least common denominator.

In order to ensure progressive environmental solutions on the level of the EEC, it would most certainly be an advantage if the requirement of unanimity now in force were replaced by majority vote.<sup>104</sup>

This change alone would not be sufficient to completely eliminate the

<sup>101</sup> As reissued on Sept. 13, 1966, *Verkehrsblatt*, p. 531.

<sup>102</sup> In the form of Dec. 6, 1960, *BGBI. I*, p. 847, as amended July 14, 1972, *BGBI. I*, p. 1209.

<sup>103</sup> See Burhenne, Hauser (*supra*, note 33), p. 163; Reh binder ZRP, 1970 (*supra*, note 50), p. 255.

<sup>104</sup> Burhenne, Hauser (*supra*, note 33), p. 163.

problem, since enactment of far-reaching environmental protection measures would still conflict with the narrow limits of Articles 30 ss., Article 36, in particular. In addition, there might be individual cases in which it would be necessary to go beyond the community provisions.<sup>105</sup>

In order to make an effective program for protection of the environment possible, it will be necessary explicitly to supplement the EEC Treaty in the area of environmental protection by using the procedures of Article 236 and, based on this change, to set minimum norms for the EEC. The member states could thus be guaranteed the necessary freedom to go beyond community norms if the individual case so required.<sup>106</sup>

Proposals favouring an effective national environmental protection policy will most certainly be opposed by many trade and political circles, which will point up renewed trade disadvantages. The question must be raised, however, if the disadvantages for the functioning of the Common Market thus induced are not part of the bargain in our efforts to reach an overriding goal: a better "quality of life".

### *Concluding Statement*

The consequences of environmental protection measures upon international trade and international investment are certainly only one aspect of the influences now making themselves felt. Far-reaching changes—which cannot be more than mentioned here—will come as a result of the increasing scarcity of resources and the constantly expanding world population. The possible implications of these factors have been discussed elsewhere in the recent literature.<sup>107</sup>

It may be assumed, in fact, that these two factors may in the long run contribute substantially more to changes in world trade than the consequences of environmental protection measures dealt with here are ever likely to.<sup>108</sup>

This does not, however, change the basic necessity of increased international cooperation in the area of environmental protection, with the goal of better coordinating national environmental policies.

<sup>105</sup> Vygen, *Ergänzung des EWG-Vertrags im Hinblick auf eine europäische Umweltpolitik*, ZRP, 1973, p. 58 (62).

<sup>106</sup> *Ibid.* (containing an overview of the problems of supplementation of the EEC Treaty, in the area of environmental protection).

<sup>107</sup> Meadows, D. (et. al.), *Grenzen des Wachstums*, 1972.

<sup>108</sup> *Der Rat von Sachverständigen für Umweltfragen, Umweltgutachten*, 1974, p. 202.