ENVIRONMENTAL PROTECTION: EMPLOYMENT EFFECTS AND POLICY REQUIREMENTS INCLUDING THE RETRAINING OF WORKERS

Report on a meeting of trade union experts held under the OECD Labour/Management Programme

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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ENVIRONMENTAL PROTECTION: EMPLOYMENT EFFECTS AND POLICY REQUIREMENTS INCLUDING THE RETRAINING OF WORKERS

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(Paris, 21-22 October 1993)

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Foreword

Under the OECD Labour/Management Programme for 1993, a meeting of trade union experts on "Environment protection: employment effects and policy requirements including the retraining of workers" was held in Paris on 21-22 October 1993. The meeting was prepared in collaboration with the Trade Union Advisory Committee to the OECD (TUAC).

Below is an overall report of the discussions of the meeting of experts, prepared by Mr. Reg Green who was designated as General Rapporteur for this activity.

A list of the participants in the meeting is given in the Annex.

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Executive Summary

Two main priorities facing OECD countries today are the fight against unemployment and environmental protection. Yet these two priorities are not being linked in policy discussions to a sufficient extent. They are often seen as objectives which are in mutual conflict. This is felt most directly by employees and their trade unions who are affected both by economic insecurity and, very often, by bad working and living environments. A choice between job security and the quality of the environment is neither an acceptable nor an inevitable choice.

The debate amongst traditional economists has not been helpful in showing the positive interlinkages between employment and the environment. Too often the approach has been -- get the relative prices right and the market will take care of everything else. The belief is that resources will be transferred from firms and industries that close to new jobs and industries. If this doesn't happen, then it is because wages and labour markets are too "inflexible". This approach begs the all important questions. When a coal mine closes the jobs are lost. The miners don't automatically become environmental consultants.

This gap between the preoccupations of large parts of the economics profession and the concerns of the real world has to be filled. The notion of sustainable growth has to be supplemented by the notion of sustainable employment. It was noted as significant that the European White Paper on "growth, competitiveness and employment" was to contain a section on a new development model for the European Community based on the linkage between the environment and employment. Also welcomed was the fact that the OECD’s Working Group on Economic and Environment Policy Integration was beginning to examine these relationships. It was felt necessary to:

-- set out the mechanisms whereby environmental policy could affect employment;
-- collect evidence on the strength of these mechanisms; and
-- indicate the potential for conscious policy action.

It was hoped that this work could be developed into a section to be included in the OECD’s Employment/Unemployment study.

The meeting discussed five major areas of linkage between employment and the environment. It was felt that:

-- unions should take action themselves at the workplace to demonstrate that jobs are most at risk in sectors and activities where environmental standards are low. Environmental policy within firms is a natural area for participation by employees and unions. To achieve this, governments
had to encourage good practice. This required the extending of worker rights covering issues such as occupational health and safety, environmental auditing, the "right to know", "whistle blower" protection, and green agreements. The common goal should be building sustainable development;

-- the public sector had a key role in stimulating the creation of markets for environmental services and jobs in the environmental sector. This could be done through public procurement and purchasing, the encouragement of networks of small firms geared to environmental improvement, and the extension of cost/benefit analysis such as to include the employment and environmental impacts of different projects. It was often unclear how, within public administrations, environment and employment concerns are taken into account in decision making;

-- in a recession, the scope for environmentally friendly public works was particularly appropriate. This was not a new idea. In the 'New Deal', the Civilian Conservation Corps had reafforested large parts of the Appalachian mountains -- similar projects could work today. The long term unemployed needed job experience to overcome employer resistance to hiring them. Environment protection programmes could provide just this sort of experience -- though it needs to be linked to proper education and training. There could also be a linkage between active labour market programmes and environmental programmes;

-- the shift of the incidence of taxation to scarce resources away from employment could have a role to play in meeting both environmental and employment goals. Though "green taxes" are not a panacea, if introduced as part of a package of measures they could have important effects. The taxing of private road transport to finance public transport was one such example of combined measures that could exploit a synergy. Measures should be introduced in a participative way and the potential negative social and equity effects had to be fully offset;

-- training and retraining is a key to managing environmental change in an acceptable and efficient way. Without a reasonable degree of security in the process of change, workers will, quite naturally, seek security against change. The resistance of some governments to the financing of retraining programmes for workers losing jobs because of clean air legislation was a good example of short sightedness.

The OECD in addition to including work on the Employment Study should extend its collection of data and information on the basis of work now being undertaken. Guidelines on the linkage of employment and environmental policies could be envisaged. Further work should be undertaken on the measurement of green GNP. The trade unions as the representatives of workers wish to be fully involved in this work.

One of the main difficulties to be faced concerns the political and institutional constraints operating against long term planning. Governments in OECD countries elected for periods typically of four or five years generally prefer to tailor their policies and programmes with the next election in mind. At the same time, industry with its desire to demonstrate to its shareholders its continuing viability is frequently more concerned with providing
information about its short and medium term, rather than its longer term prospects. This is perhaps inevitable given the current limited nature of reporting and accounting methods and procedures (i.e. those generally excluding consideration of ‘externalities’ such as environmental impacts and costs).

Background

Environmental protection has for a number of years risen slowly up the political agenda. At the global level, this culminated in the United Nations Conference on Environment and Development (UNCED or ‘Earth Summit’ as it has popularly been termed). The activities of the ‘green’ and environmental groups have largely accounted for environmental protection becoming a major issue. However, following an initial period of public sensitisation, the whole debate about environmental protection has moved on to become of concern to a much larger number of people in industry, political life, policy making, economics, as well as a considerable part of the scientific community.

Since the call for commitment to the principle of ‘sustainable development’ contained in the Brundtland report, workers and their representative trade unions have become increasingly concerned to develop policies and strategies that will tackle the clearly unsustainable aspects of workplace activities whilst, at the same time, promoting a move to more sustainable ‘cleaner’ production and products. This process has been extremely uneven both at the sectoral and individual workplace levels and within the trade union organisations themselves.

The OECD, in a number of on-going programmes, is committed to addressing the relationship between environment and economic activity in a number of specific areas. The current state of OECD work in this field was presented to the meeting of experts by various OECD Directorate personnel. Included amongst the most important are an OECD "horizontal" employment/unemployment study and a study on employment, environment and taxation.

The meeting of experts took place at a time when a number of competing demands and influences within OECD countries are evident. Whilst ‘the environment’ is still a publicly stated concern, it appears that a number of governments are tending to downgrade environmental issues and activities, preferring to emphasise burgeoning OECD unemployment and sluggish growth -- if not outright recession. One element of this is the trend -- expressed to a greater or lesser degree in particular within the 12 EU countries -- towards a slowing down or reversal of proposed legislation on environmental issues. There is still a clearly discernible belief that the environment exists apart from other economic and social concerns and that environmental protection must follow on the heels of ‘economic recovery’. To this extent, the attitude is one of ‘business as usual’. In fact, environmental problems persist -- and in many instances are increasing -- alongside very high levels of unemployment. At the same time it has been argued that not all measures designed to protect the environment will have a positive effect on the employment/unemployment situation, nor will measures aimed at the employment/unemployment problems necessarily be of direct benefit to the environment. This approach appears to indicate a rather traditional pattern of assumptions and may be one of the principal reasons why the necessary ‘holistic’ perspective is still lacking.
More than a decade of frequently aggressive market-based policies in a number of leading OECD countries have contributed to a blinkered approach where those problems not resolvable through traditional market-based solutions have been ignored or have been written off as narrowly defined ‘costs’. This problematic exercised the expert group participants and was addressed in particular in the debate about the respective roles of the public and private sectors (see section 5 below).

It is clear that the current system of national accounting which relies on Gross National Product (GNP) is a very imperfect statement of economic reality, since it does not reflect environmental costs. It was noted that there is work going on at the OECD level and that for a good number of years the issue has been addressed within the United Nations. However, a more responsive set of parameters is urgently needed as it is only through using a new all embracing measure of national wealth, including environmental costs and benefits, that it will be possible to assess the true relationship between a country’s economic performance and the state of its environment. If there is to be a genuine commitment to the environment -- especially including the creation and maintenance of environmentally sound employment -- then it is vital that an effective system of environmental costing and accounting be developed together with effective environmental monitoring. The proper place for such systems to operate is at the level of the workplace with the full participation of workers and their representatives.

Many now believe that the long term viability of jobs will be significantly reduced where environmental standards are low. Low environmental standards may, in addition, be an indicator of a deeper malaise manifested by low economic performance and by inadequate investment. Much more research is needed into the connections between low environmental performance and job security.

Environment and the world of work

There are a large number of ways in which the world of work impinges on the environment. These include the obvious effects of the work activity itself in terms of energy usage, depletion of non-renewable resources, pollution and waste. There are also a number of other ways in which the world of work can have an impact on the environment -- including the nature, utility, quality and ultimate fate of products. The effects of work activities on the environment differ between sectors, individual workplaces and over time -- but they are ever-present.

There appear to be certain positive correlations between unemployment and environmentally unsound behaviour. In his book ‘The Poverty of Power’, Barry Commoner stated that "The amount of energy and capital needed to accomplish the same task has increased; the amount of labour used to produce the same output has decreased; the impact on the environment has worsened." Although the efficiency of industrial energy use since the first oil shock in the early-seventies has increased by some 30%, capital and energy are still being substituted for human labour at a time when millions of people in the OECD countries are unemployed. This leads to the question ‘in what meaningful sense is there any overall benefit if the cost of improved ’efficiency’ is
that fewer and fewer people are employed and less and less are able to afford the resulting goods and services?’.

The industries posing some of the greatest negative environmental problems -- such as the energy and chemical sectors (including transportation, electric utility and mining) -- are also amongst the most capital intensive. Though it has to be recognised that these sectors are also amongst the highest paying.

At the same time, some of the historically big polluters have recently developed very good clean technologies and this may be another demonstration of the power of regulation on technical innovation. Caution has, therefore, to be exercised to ensure that whole sectors are not classified en masse as ‘dirty’ and inevitably doomed.

It has been argued that in comparison to the larger companies, small- and medium-sized enterprises (SMEs) may be disproportionately disadvantaged by having to meet new environmental standards and norms. The implication being that jobs in these companies will be correspondingly jeopardised. This problem is perhaps exaggerated. There is evidence to suggest that SMEs are now coming under pressure from the bigger companies -- whom they supply -- to improve their economic and environmental performances. They may even be assisted by the larger company in this regard, the implication being that those unable to meet the new requirements or standards of their client companies will fail. Nor is it to be expected that the pressure from consumers and environmentalists will fall any less harshly on SMEs, and they clearly have a stake in improving their environmental performance. The fact is that SMEs continue to exist because they are different in kind and, frequently, fill different or complementary roles to larger and multinational companies. It may also be the case that SMEs are -- by virtue of their smaller size -- more able to be flexible and quicker to respond to change.

Innovative technologies do and will continue to play an important role in environmental protection. But technology is a tool not a policy. The nature of a particular technology will determine its role. The socio-economic effect of such technologies will depend upon the use to which they are put, and their general appropriateness in any given set of circumstances. Moreover, if a technology exists but is not widely available to those most likely to benefit from its use -- for instance because of patent restrictions of cost -- then its utility may be severely restricted. But there is a long history of technology being used, in the first instance, as a means to shed labour rather than to improve environmental performance.

Major structural and infrastructural changes needed to address both environmental protection and job creation will have to be carefully planned over the long term and in order to enjoy the fullest possible support and co-operation will need to involve what are frequently referred to in OECD countries as the ‘social partners’. Trade unions and workers must be involved in managing change. Participation in the fullest possible way at the earliest possible stage will help to minimise hasty and ill-considered decisions and the consequent adverse reactions. This process of planning and negotiation cannot wait until the environment once again becomes politically dominant. The better and more timely the planning, the more likely that costs will be kept down and social and industrial disruption minimised.
In some OECD countries, workers and their unions are negotiating to have environmental or 'green' clauses incorporated in working agreements and contracts. These, typically, define the rights and obligations of the parties and usually recognise the dynamic process of environmental improvement, and the balances which have to be struck in practice. Given the dynamics involved and the differences which exist not only between sectors and industries but also between individual workplaces and even different parts of the same workplace, it is important to ensure that the participation of workers and their trade union representatives is assured at every level -- from the local to the international. One of the best ways of doing this is to ensure that joint management/union workplace environmental audits take place on a regular basis and that the resulting proposals and recommendations are acted upon.

Environment and unemployment

It is still too common for economists and politicians to treat environmental protection and unemployment as unrelated issues. There are good reasons why the trade unions should oppose the splitting of these priorities for action. One of these concerns the arguments put forward by many employers suggesting that if it were not for the ‘burden’ on industry of environmental compliance, more money would be available to invest in jobs. This argument sometimes appears on the surface to have merit. However, it is worth noting that in the mid-eighties, 75% of all West German investments by industry were intended to increase automation -- and thus reduce the number of jobs. There is a real danger that the spectre of unemployment will be used more forcibly as a stalking horse by the deregulation lobby despite this kind of evidence.

Although the social and economic aspects of unemployment are widely recognised (if less than adequately addressed), less attention has been given to the environmental consequences of unemployment. This despite the often stated argument that poverty is one of the world’s greatest polluters. There are a number of reasons to be concerned about the environmental impacts of unemployment -- in addition to the personal misery and suffering of unemployed persons and the economic waste that unemployment means. Unemployed persons pay little or nothing by way of direct taxes (thereby being unable to contribute to the pool of public funds on which much environmental action will depend); they are more likely to live in poor housing with inefficient heating and insulation; they may own cars which are old and inefficient. It is also true that the unemployed have less motivation to think in the long term than their more fortunate colleagues. Tackling unemployment would be a positive contribution to environmental protection -- provided that the employment created is not itself environmentally unsustainable.

The public and the private sectors

Economists are often split between those who see the State as having a catalysing role in economic life and those for whom the market rules supreme. As far as environmental protection is concerned the State necessarily assumes certain responsibilities and should play a leadership role. Within OECD countries, the public sector still accounts for a very significant part of national expenditure. The public sector is responsible for employing millions of workers whose activities to a greater or lesser extent have an impact on the environment. The public sector -- by virtue of its dependency upon the public purse -- is also a highly ‘visible’ sector and, as such, is subject to the scrutiny of politicians, economists and the private sector. The public sector can and does therefore send very strong signals to the rest of society.
Public sector procurement policy, infrastructural investment, and efficiency have an enormous effect on the environment both directly and indirectly. Public sector activities and policies are likely to be more susceptible to political influence and direction than the private sector. There is considerable scope for imaginative policies within the public sector. One way -- perhaps especially attractive in a recessionary period -- would be the creation of environmental jobs in the public sector. The term ‘environmental jobs’ would mean physical clean-up measures to improvements in public transport, energy efficiency, housing and a whole range of other measures.

As far as the public sector is concerned, it is important to develop policy guidelines for the environment. These guidelines need to be established in co-operation with workers and their trade unions, they should be transparent, modifiable in the light of experience, continuously reviewed and assessed in terms of their impact on employment.

The public sector should be subject to the same environmental requirements, strictures and controls as the private sector. It is recognised that there are special considerations in this regard, not least the fact that public expenditure is paid out of taxes and not out of profits. At the same time the public sector accounts for a significant contribution to environmental pollution and this fact has to be addressed. The environment may suffer as a direct or indirect result of ‘savings’ or ‘economies’ in the public sector. For this reason it will be important for governments to ensure that their policies on the environment are open, clear, consistent and developed with the broadest possible consultation and participation. The national environmental reporting mechanisms to which OECD governments committed themselves at the ‘Earth Summit’ may provide a good forum to discuss and develop their procedures.

In many ways the most advanced and progressive environmental innovation will depend upon the activities of the private sector and such innovation has to be encouraged wherever possible. There is widespread expression of concern by industry about the possible inequities that environmental taxes, economic instruments and regulation may create both within and between industrial sectors. This concern has also been expressed in terms of the ‘competitive disadvantage’ faced by industries in countries where such measures exist as against their competitors in countries where the measures do not exist or are ignored. It is important not to lose sight of the fact that these very companies -- frequently based in the OECD countries but with subsidiaries in other parts of the world -- are actually taking positive economic advantage of the disparities which exist. On the other hand, there are examples of industries having gone beyond what is required, to set new and higher standards. These industries stand to benefit from the ‘first mover’ advantage. There is also an articulate school of thought which holds that regulation can act as a positive stimulus to innovation.

There are differing pressures both within sectors and amongst individual employers within a sector. As in other aspects of industry there are winners and losers and these relative positions of advantage and disadvantage can and
do change over time. The right balance has to be struck to ensure that environmentally sustainable activities are promoted and environmentally damaging activities are obviated or minimised. From the jobs perspective, it may be necessary to give some temporary support to industries which are facing difficulties in meeting new requirements but this approach cannot be generalised and is certainly no long term solution. Moreover, it should not encourage or prolong poor environmental performance. Rather than supporting ailing industries, it may make more economic and environmental sense to adopt other measures such as the retraining and reskilling of workers, early retirement packages, etc.

Environmental taxes

One of the most intense debates taking place within the OECD concerns environmental taxes. The ostensible primary aim of such taxes is to modify behaviour rather than to increase revenue per se. Nevertheless, revenue is necessarily increased by the imposition of such taxes -- at least until the behaviour being taxed ceases. This in turn has given rise to a debate about the use to which such taxes are put and the related distributional effects. It has been pointed out that environmental taxes whilst aiming to have environmental utility may, at the same time, be regressive in their social implications. Given the wide social and economic disparities which already exist in OECD countries, especially at a time of high unemployment, it is not acceptable that the poorest section of society pay even more of its already limited disposable income. This means that some means has to be developed whereby the total effect of changes in taxation is broadly neutral.

Such an approach requires that the necessary environmental benefits of such taxes are not offset by a concomitant social disbenefit amongst those least able to withstand it. A range of options have been suggested including offsetting carbon taxes with financial assistance to improve efficiency (for instance, home insulation grants). In reality, there are not likely to be many instances where a direct one for one trade off is possible and a degree of sophistication will be required in order to develop packages of measures designed to be ‘synergistic’ in their effect. These packages will not be the same in all instances and may have to be frequently modified. It will be important to define precisely what goal is being pursued and then establish the best ‘package’ or ‘mix’ for achieving it. One of the guiding principles should be to increase employment prospects at the same time as reducing environmental burdens. This could include a reduction in the tax cost of employing labour alongside, for instance, an increase in taxes on the use of non-renewable resources. An approach is required that is sensitive to the different needs and abilities of various sectors, whilst being based on continuous environmental improvement.

For taxation changes to be effective they need to be assessable for their utility in practice. Decreasing taxes on the employment of labour and increasing taxes elsewhere (such as through a carbon tax), should result in more people, in fact, being employed than was previously the case. There must be a commitment on the part of OECD Member countries to analyse, inform, consult, and involve the social partners in this process.

There is a real fear that if environmental taxes in any sense replace the ‘polluter pays principle’, they may distort the development of a positive
attitude against environmental pollution. If, on the other hand, environmental
taxes are clearly a better way of achieving a desired end, at the same time as
ensuring that the best environmental performers are not placed at any
disadvantage, then this fear may be somewhat less well grounded. It was felt
that environmental taxes should, as a general rule, be a development of or
supplement to the ‘polluter pays principle’ -- and they should be
redistributive in nature. It must also be recognised that the more
‘successful’ the environmental tax, the more likely it is to disappear -- since
it will have discouraged precisely the kinds of behaviour on which it is based.

The effects of environmental taxation can have major impacts and
influences on trade between countries, and the OECD will therefore need to
adopt a global approach in its work on environmental taxes. It needs to be
remembered, also, that environmental taxes are not panaceas but are rather only
one element in tackling global problems. A judicious mix of environmental
taxes, economic instruments and regulations may be expected to provide many of
the best options. The whole question of the introduction of an energy and/or
carbon tax in the EU countries has provoked massive opposition, and in the
United States broadly similar opposition has been observable. Part of the
problem is that no country or group of countries within the OECD is prepared to
take the lead and run the risk of being placed at a competitive disadvantage.
In the case of the EU countries, there is the additional fear that such a lead
would lead to accusations of barriers to trade and be declared unlawful as has
happened in other areas where a member State has attempted to take an
environmental lead.

There is considerable debate about the merits and practical
opportunities for ‘ear-marking’ revenue raised by environmental taxes for
specific environmental objectives. The protagonists -- with some justification
-- wish to see such ear-marking in order to ensure that environmental taxes do
not simply disappear into public coffer with no net gain for either the
environment or jobs. Some individuals and organisations are opposed to the idea
of environmental taxes unless there is specific ear-marking. The antagonists
point out that ear-marking may be a real problem if the aim is to introduce
taxation changes with a neutral or zero-sum effect. A better way may be to
identify and pursue some general priorities. More work needs to be done on the
possibilities and relative merits of ear-marking for specifically identifiable
objectives, as well as on ways of establishing to what extent the effects are
positive for jobs and the environment.

Economic instruments

One of the questions often asked is ‘how much is the general public
prepared to pay for the environment?’. The answer will be a complicated mix
depending on, amongst other things, the particular environmental good one has
in mind, the urgency of the situation, the level of awareness of the consumer,
and the ability to pay. It will also depend, crucially, on showing that a
particular economic instrument ostensibly levied to protect the environment is,
in fact, the best means of doing so. There is, for instance, very considerable
concern that the levying of extra charges -- whether this be on consumer goods
and services, or through direct taxation -- is likely to be more about raising
profits or revenue than about protecting the environment and creating
sustainable jobs. There have to be mechanisms and structures in place to
relate the imposition of charges to the rate and extent of improvements (or
degradation) in the environment. This will not be easy. There will not always
be a direct link between the charge and the end result.
In general, economic instruments must supplement regulatory measures and are no substitute for regulation. There is a wider experience of the use of economic instruments than of environmental taxes -- perhaps an indication of a relatively higher degree of acceptance. The main types of economic instruments in use in OECD Member countries are: Charges -- including effluent charges, user charges, product charges, and administrative charges, used to discourage polluting activities and/or to provide financial assistance to achieve reductions in pollution; Subsidies -- in the form of grants, soft loans and tax allowances which may be used to encourage less polluting behaviour; Deposit-refund schemes to encourage re-use and/or more environmentally friendly disposal; Market creation arrangements -- such as trading arrangements to encourage more efficient and cost-effective use of emission permits; Financial enforcement incentives -- such as non-compliance fees and performance bonds which provide an additional financial inducement to comply with existing environmental regulations.

There is a need to investigate the effect of incentives and subsidies in practice, starting with those incentives and subsidies currently in place. It is especially important to ensure that taxation and economic instruments aimed principally at changing behaviour from the environmentally unsound to the sustainable are not contradicted or compromised by measures working in precisely the opposite direction. This means that a full analysis has to be made not only of the utility of a particular measure, but also of its relationship with other measures which may be in place. It will also be vital to investigate the links or potential links between economic instruments and employment. This is needed to ensure that necessary restructuring can be done in a planned manner. Whilst a particular environmental good should not be sacrificed purely because it may have an adverse effect on some particular employment, it is important to ensure that the economic and social consequences of achieving an environmental good are taken fully into consideration. It is only by doing this that the smoothest possible transition from unsustainable to sustainable employment can be achieved.

Public transport is at the heart of the environmental debate and one of the most consistently championed causes of the environmental groups and, increasingly, the broader public. It is also a sector where subsidies have played -- and should continue to play -- a role. In OECD countries, with few exceptions, investment in the public transport infrastructure comes a very poor second to the construction of new roads -- principally built for the private user. Those who would like to leave their cars at home are frequently unable to do so because of a lack of a reasonable public transport network due to this lack of political commitment and consequent underinvestment. One way of dealing with this problem would be to subsidise -- to a much larger extent -- the public transport infrastructure. At first this subsidy would be relatively high but, as more and more people use the improved system, the overall efficiency would increase and it should be possible to reduce the per-capita subsidy. This would be a major political decision and would have to be made taking into account the employment effects on the private transport and related sectors. Detailed long term planning will be essential in order to minimise the social and economic ill effects and maximise the environmental advantages. Using such an approach job disruption could be minimised and job opportunities could be improved in the longer term.
Another area where subsidies of one sort or another play a large role is in the energy sector. In particular, the nuclear sector has enjoyed considerable government patronage. Prior to the privatising years under Prime Minister Thatcher, the UK nuclear industry was frequently held up as a shining example of clean, cheap energy. Leaving aside the question of the disposal of nuclear waste and its relative ‘cleanliness’ compared with other energy generation waste products, it is noteworthy that interest in buying nuclear facilities dropped away suddenly and drastically when it was learned that the UK government was not prepared to underwrite decommissioning costs. Clearly, the enormous and environmentally crucial exercise of decommissioning, had not been adequately accounted for in assessing the cost of electricity generated using nuclear power. Had this been the case, nuclear electricity would have compared far less favourably with other forms of electricity generation -- and would still have been saddled with major unresolved disposal problems. During the same period, much was made of the relative inefficiency of the (grossly under-financed) forms of alternative, renewable, energy technologies such as wind power, wave power, bio-mass, geothermal and solar power. A level of support comparable to that received by the nuclear industry should be accorded these alternative energy initiatives -- both on environmental grounds and on the basis that the research, development, operation and maintenance of such technologies would be far more labour intensive -- that is, job-creating -- than the ‘traditional’ energy-generating industries (all of which are continuing to rely to a greater or lesser extent on new technologies to help automate industry and shed labour).

In energy poor Japan, the government has launched its ‘Sunshine Programme’ involving massive investment so that all houses can be fitted with solar panels. Such a long term political and financial commitment on the part of the Japanese government could result in Japan becoming a world leader in solar panel technology, production and installation and this in turn could have enormous benefits for Japanese industry. In the same way, massive investment in Japan into the problems of CO2 and NOx has led to advances in technology with significant job creation prospects and real environmental benefits. In terms of financial efficiency, there is likely to be more scope for effecting change -- through the use of subsidies and investment -- in newly developing areas rather than in the older more established sectors, or 'sunset' industries, products and processes. Alternative energy is only one case in point -- though potentially perhaps the most important.

Although there is considerable agreement that environmental protection pays off in the long term, it is certainly possible that cleaner technologies in their formative years may actually be more expensive than traditional technologies. This is another area where commitment to long term investment, subsidies or other incentives would be appropriate. It is extremely interesting to note that the OECD Environment Directorate is carrying out work on the nature and effect of subsidies on certain current forms of energy generation. It is to be hoped that this work will be extended and that an assessment of the likely or possible benefits of long term investment and subsidies for alternative energy initiatives will form part of the OECD’s future work. The OECD should also take into consideration the work on cleaner production being carried out by the United Nations Environment Programme -- Industry and Environment Office.
Regulatory measures

It is often said that regulation of industry is inefficient and that regulatory measures impose burdens on industry which prevent it from investing and otherwise responding to the environmental challenges it faces. Against this, there are those who have shown that, far from being a problem for industry, regulatory measures can in fact act as a positive spur to technological and organisational innovation. One such is Professor Michael E. Porter at the Harvard Business School. He has gone on record as saying that "Strict environmental regulations do not inevitably hinder competitive advantage against foreign rivals; indeed, they often enhance it. Tough standards trigger innovation and upgrading...the nations with the most rigorous requirements often lead in exports of affected products".

The overall macro-economic effect of regulation tends to be neutral to positive as far as we are able to tell, but this macro-economic view does hide significant differences at the sectoral levels. Regulation may be prescriptive or proscriptive without being specific. Indeed, many observers believe that the best regulatory measures are those which require a particular goal to be achieved whilst allowing maximum scope regarding the means for its achievement. Such ‘generic’ regulation may have the merit of being more durable -- especially if it continues to be applicable in the face of new developments, new technology and the like.

Training and retraining of workers

The training and retraining of workers represents both an investment in the future and a future investment. As with any investment, industry looks for the best possible return on that investment. There is a current trend within industries in OECD countries to use contract labour, part time workers and a more arms-length approach by employers toward their workers in terms of security of employment, employment benefits, and the like. It is difficult to see how such an approach can in any way be compatible with quality training and high skill levels. An OECD study has addressed this question and found that formal company training is more limited in countries where labour turnover is high. In the United States, only 8% of those with a firm for less than one year had any formal training compared with 25% of those who had been there for 15 years. In the United States, only 10% of young recruits had any formal training from their company compared with 70% in Japan and Germany. These figures also equate with a much more stable workforce in Japan and Germany than in the United States. The conclusion reached by ‘The Economist’ in its coverage of the OECD study was that if a country’s companies switch to more flexible types of employment contracts, individual firms may well prosper. But if workers get less training as a consequence, the country’s economy might become less competitive. It is extremely important to take account of these facts when talking of job creation -- particularly short term, low quality jobs.

Poorly trained workers are a long term liability for any country. From the perspective of the individual worker there are major disbenefits in terms of morale and self respect -- essential elements for good personal and industrial relations and for productivity. At the societal level, poorly
trained workers will be less efficient and less capable of playing an active and progressive role in their company. The resulting lack of ability and willingness can have serious negative effects on environmental performance -- both of the individual concerned and the company he or she works for. Expecting increasing ‘flexibility’ from workers without providing them with the secure employment base and high levels of training which would promote such flexibility is untenable.

Lack of investment is harmful at the national level in general terms but it also translates into distortions at the level of industry. Those employers prepared to make the investment in training their workers run the risk of having them ‘poached’ by less committed employers.

There is a very large number of companies failing to meet their training obligations. If training is still a major problem area, then retraining is even more so. Training and retraining are vital to industrial and national economic well-being. The problem is already reaching crisis proportions alongside high unemployment and considerable industrial restructuring. One way of improving the situation would be to levy a training charge on industry such that those failing to meet their obligations would be obliged to pay a fee to government so that alternative training programmes could be developed. The general principle being to encourage industry to do its own training. It would be very important to ensure that under such a scheme those who claim to provide appropriate training are in fact doing so. This implies the existence of some sort of independent training inspectorate.

Mechanisms also have to be developed to help workers affected by structural changes retrain so that they can take advantage of the new job opportunities which will be available. The approach to retraining might have to be different, but may include an employer contribution towards retraining. There should be national policies developed so that courses are designed to provide skills at a level and in areas where jobs are most likely to be created. At least one country within the OECD has discussed the creation of an industrial university to promote reskilling and this approach deserves more thorough consideration. Education and training should be of a uniformly high standard throughout the OECD countries and there should be mutual recognition within the OECD countries of certification in respect of education and training.

Conclusions

As a general principle, it is important that the work of the OECD Environment Directorate is co-ordinated with that of the other OECD Directorates dealing with employment, industrial relations, etc. Consideration should be given to this co-operation in the economic and environment work of the OECD for 1994.

The OECD must increase the opportunities for dialogue between the social partners both within and across its Directorates. In particular, the OECD needs to do more work on how alternatives are identified and choices made as far as job/environment protection and promotion are concerned and how such choices are translated into policy. The trade unions are very keen to ensure that they have an input into such work.
The OECD needs to assist in the development and use of reliable indicators in the jobs/environment relationship as it is felt that one of the most significant shortcomings is a lack of good information on this important nexus. The OECD already publishes ‘The State of the Environment’ which is an excellent source of data and statistical information. This could be further improved by the inclusion of data on the link between jobs and the environment. Such information should be brought together with that from other OECD Directorates so that the employment/unemployment dimension is fully explored and reported on.

There is a strong feeling that much work is being done, research supported, and policy being developed in comparative isolation. The OECD should play a much more active co-ordinating role in this regard. This will entail not only good communication and co-operation at the national and European Union levels but also with other organisations such as the United Nations (especially the International Labour Organisation which has done extremely valuable work in the field of jobs and the environment; the United Nations Environment Programme; the United Nations Industrial Development Organisation; and the World Bank).

The flight of industry and capital from highly regulated countries to those with lesser standards is both a worry and a threat. Workers are being asked to join employers in the fight against high environmental regulations and standards on the grounds that these regulations and standards make a company uncompetitive with a consequent negative impact on jobs. But there are those who have demonstrated that environmental regulation has not in fact led to such major displacement. The OECD should try to establish the true picture both in order to gain a proper perspective and to learn more about how industry is able to accommodate higher standards and in which sectors and under what circumstances displacement is observable.
ANNEX

LIST OF PARTICIPANTS

Trade Union Experts

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