

This paper outlines the main findings and recommendations of the Toyne Report on environmental education and training in the FHE sector. The report recommends:

- all institutions formally adopt a comprehensive environmental policy statement by 1994/5
- all institutions extend their involvement in environment-related updating courses for the workforce
- all institutions explore the scope for staff secondment between industry and education
- funds for a national programme to support the development of teaching and learning materials to be made available
- a national appraisal of progress in HE be undertaken no later than 1995/6.

Environmental education: the Toyne Report

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Education, training and knowledge are key themes of *This Common Inheritance*,¹ the Government's environmental strategy, which stresses that decisions on how we protect our environment will depend on a 'sound understanding of the underlying science, of the natural processes at work, of the effects of man on the environment and of the environment on human health and well being'. To assess the need for environmental awareness and understanding in the workforce and how further and higher education institutions might respond, the Government set up an expert committee on environmental education in October 1991, under the chairmanship of Professor Peter Toyne — Vice Chancellor, Liverpool John Moores University. The committee published its report — *Environmental responsibility: an agenda for further and higher education*² — earlier this year. The membership of the committee was drawn from a wide range of educational, industrial and environmental interests.

The Toyne Report identifies three distinctive strands of environmental education provision in FHE, namely:

- specialist courses leading to recognized environmental qualifications
- 'updating' courses on environmental topics for those already in the workforce
- 'Cross-Curricular Greening' — environmental education aimed at the rest of the student body.

The Committee identified very little evidence of shortages of specialist courses in such subjects as Environmental Science, Environmental Health, Waste Management, Pollu-

tion Control and Countryside Conservation at present. However, existing and planned environmental legislation including the 1990 Environmen-

tal Protection Act and EC directives on auditing and eco-labelling, are likely to have far-reaching implications for all sectors of industry, commerce and public service; hence career opportunities in specific environmental areas such as environmental technology are expected to expand. Increased demand for persons with specialist qualifications at postgraduate and subdegree levels is anticipated. The report cautions against over-provision and encourages course providers to review the content of their courses and align them more realistically to existing and future career outlets.

Updating courses ranging from general awareness to training for highly specialized scientific, technological and legal aspects are generally underdeveloped both by FHE institutions and by industry itself. The report projects a substantial increase in demand for such courses as employers begin to appreciate the requirements of environmental legislation. Because of the absence of sufficient expertise or in some cases the difficulties anticipated in its mobilization and co-ordination — this is unlikely to be an easy task. The report correctly identifies

Box 1. Recommendations of the Toyne Report: Funding Councils

- The FHE Funding Councils should take appropriate action to encourage and reward the adoption of sound environmental practice in the institutions which they fund.
- Insofar as future funding arrangements for FHE involve earmarked provision for staff development in particular subject-areas, serious consideration should be given by FHE Councils to the claims of environmental education.
- Environmental updating should be given priority — both by institutions and by FHE Funding Councils — in the allocation of any funds which may be available to support the development of updating in general.

Box 2. Recommendations of the Toyne report: FHE institutions

- After consultation with its staff and students, every further and higher education institution should formally adopt and publicize, by the beginning of the academic year 1994/5, a comprehensive environmental policy statement, together with an action plan for its implementation.
- Each institution, pursuant to its overall environmental policy, should adopt a policy for the development of environmental education.
- Each institution's policy for environmental education should include, in particular, a strategy for the promotion of environmental education across the curriculum, together with an action plan for its implementation.
- All higher education institutions providing first degree courses in Environmental Science or Environmental Studies should undertake a searching review of their aims and curricula, in the light of their recent graduates' employment destinations.
- Prospectuses and other information for prospective students should be kept under constant review, with particular reference to what is said or implied about career outlets.
- Institutions which do not at present offer work experience placements for their students should seriously consider doing so; where placements are already offered, institutions should explore the scope for increasing their variety. Employers should make every effort to collaborate with institutions in this.
- The scope for achieving greater consistency in the use of 'environmental' course-titles should be considered by the Committee of Heads of Environmental Sciences, in consultation with the Institution of Environmental Sciences and other relevant interested bodies.
- The feasibility of establishing a 'core curriculum' for first degree courses in Environmental Science and Environmental Studies should be examined by the Committee of Heads of Environmental Sciences.
- Institutions currently offering — or planning to offer — taught postgraduate courses in environmental subjects should take all practicable steps to improve the flexibility of their delivery, for example through modularization and distance learning.
- In the context of their overall environmental strategies, all FHE institutions should seriously consider the scope for extending their involvement in environment-related updating.
- Institutions involved in environment-related updating should explore with their industrial and other clients the scope for staff secondments (in both directions), to promote mutual understanding and improve the quality and relevance of their provision.

that there is considerable need to improve communication between education and employers and identifies the 82 training and enterprise councils (TECs) as important agencies in this process.

The report highlights the important role the FHE institutions must play in developing the environmental understanding of students whose courses are not specifically 'environmental' in focus. Such 'cross-curricular greening' may be concerned with work-related requirements and more broadly with their needs as citizens. Overall, the 'cross-curricular greening' of courses in FHE institutions has proceeded at a variable but generally slow pace. Progress in most has been hampered by the sheer volume and diversity of the courses they offer. Also the boundaries between different subject departments have tended to militate against a whole institution approach to such 'curriculum greening'. The report stresses that 'it is ... high time that each institution adopted a con-

sidered strategy, appropriate to its own situation, for the promotion of environmental education across the curriculum'. This is no short-term or easy process and a variety of strategies will be needed to develop this objective.

The report recommends that every

institution should practice what it teaches. Hence the development of environmental education will depend, above all, on a major commitment at institutional level. Eleven of the report's 27 recommendations are addressed to the institutions themselves (Box 2) which are strongly urged to

Box 3. Recommendations of the Toyne report: examining and similar bodies

- All parties concerned with the future development of General National Vocational Qualifications should ensure that systematic consideration is given in each case to the identification of the main environmental issues affecting the occupational sector in question; these issues should be included in the GNVQ specifications unless there are very strong reasons to the contrary.
- The scope for enhancing the coverage of environmental issues within A and AS level syllabuses should be considered by the School Examinations and Assessment Council and the Examining Boards.
- All professional institutions should seriously assess — or, as the case may be, reassess — the place of environmental issues within those HE courses for which they control or influence the curricula, and take action to promote the appropriate changes.

Box 4. Recommendations of the Toyne Report: Department of Education and other government departments

- Funds should be provided for a national programme to support the development of environmental education within FHE through the identification and dissemination of teaching and learning materials, and the establishment of a database of materials already available.
- The Department of Education and the Welsh Office should commission, not later than the academic year 1995/96, a national appraisal of the progress which FHE has made in the development of environmental education against the background of the Committee's report: and should consider the need for further action at national level in the light of this appraisal.
- The Department for Education, in consultation with the Welsh Office, should investigate the feasibility of developing a national directory of environment-related updating provision and other environmental services provided by FHE, and should also consider how the dissemination of successful environment-related updating practice might best be achieved.
- The Department for Education, the Welsh Office and the Department of the Environment should investigate the feasibility of establishing a national awards scheme to recognize outstanding progress by individual institutions in the development of environmental education, and in the improvement of their overall environmental performance as institutions.
- To ensure that environment-related updating needs are more clearly articulated for the guidance of providers, the Department of Education, the Welsh Office, the Employment Department, the Department of Trade Industry, and the Department of the Environment should urgently investigate ways and means of encouraging better communication between FHE and employers building on networks and mechanisms which already exist.
- The need for research to establish firmer evidence of likely trends in employer demand for persons holding specialist environmental qualifications should be further considered by the Employment Department in consultation with the Department for Education, the Welsh Office, the Department of the Environment and the Training and Enterprise Councils.
- The Employment Department in consultation with the Department of Education, the Welsh Office and the Department of the Environment, should monitor trends in employer demand for persons with postgraduate environmental qualifications, and also keep the development of provision under careful surveillance, to ensure that any shortages or bottlenecks are speedily identified.
- The Employment Department, in concert with the Department of the Environment, should provide support for the Council for Occupational Standards and Qualifications in Environmental Conservation to facilitate the speedy completion of its proposed programme of work with other Lead Bodies to encourage the wiser and more consistent adoption of integrated environmental competence standards across all relevant occupational sectors.
- The Employment Department and the Welsh Office should encourage Training and Enterprise Councils to give closer attention to the need for greater day-to-day environmental responsibility in industry, and the training requirements arising from this.
- The Government should consider the case for research into the particular training needs of small and medium sized enterprises.

adopt co-ordinated strategies for Environmental Education along with institutional strategies for the improvement of environmental performance in such matters as energy efficiency, transport and waste management. The remaining recommendations directed at the Further and Higher Education Funding Councils, examining and professional bodies, and various government departments are listed in Boxes 1, 3 and 4 respectively.

There is little doubt that if we are to promote better understanding of environmental issues, let alone hope for a solution to some of the global problems we face, then there is a need for

everyone to have a basic understanding of the wider context within which environmental issues arise. Without being overly prescriptive the Toyne Report offers a valuable framework for industry and education in partnership to address these issues. The education system should be encouraging and enabling scientists, technologists, managers and citizens to be well informed and critically reflective about the environment and thus better able to resolve some of the environmental issues which this planet faces.

References

- 1 *This Common Inheritance*, Govern-

ment White Paper on the environment, Chapter 17, HMSO CM 1200, 1990.

- 2 *Environmental Responsibility*, report of a Committee on environmental education in further and higher education appointed by the Department for Education and the Welsh Office, Chairman Peter Toyne, HMSO, London, 1993.

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