MANKIND WORKING LIFE
AND
OCCUPATIONAL HEALTH

A Contribution to Rio + 10

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August 2002

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ICOH Contribution to Rio + 10

Dear Professor Knave

Thank you for your enlightened Presidency, which cleared the way for this contribution to the Rio + 10 *World Summit* process.

The final report introduced by this letter formalises the ICOH's participation in the Summit process. It reflects the ICOH position in so far as this could be captured from member's comments on the draft report. It is planned to have this final report made available electronically for some months after Rio + 10, through the ICOH home page. Members are thanked for their comments. Professor Tar-Ching Aw is thanked for managing the web formatting and Professor Jean-François Caillard is thanked for his ongoing encouragement and advice.

300 hard print copies of this report will be produced in booklet form for distribution to ICOH Board members, *World Summit* delegates and selected libraries. The Executive Summary will be distributed selectively within the government compound at the *World Summit*. This action will finalise the ICOH's ongoing participation in events leading up to the Summit, which will ratify a final document to guide sustainable development action for the next five years. No doubt the ICOH, through its Scientific Committee activities, will help progress the sustainable development aspirations of the world community during this period. As individual members of ICOH we should genuinely explore ways to help humanity live *wisely, agreeably and well.*

This report is a public domain document. Members are encouraged to distribute it electronically through their professional networks. Persons wishing to reproduce the report in whole or in part may do so freely, simply by acknowledging the ICOH.

Yours sincerely

Ian Eddington

Member Scientific Committee on Education and Training in Occupational Health
Member Scientific Committee on the History of Prevention of Occupational and
Environmental Diseases

1. The ICOH is privileged to participate in the Rio + 10 process, congratulates the WSSD for its initiative, and urges the leaders of the world's nations to combine their strength with good will in a concerted challenge to the many problems raised and faced by *Agenda 21*.

2. In any future revision of *Agenda 21*, occupational health and safety (OH&S) should be mentioned by name, have its central importance in sustainable development acknowledged in words, and, where relevant, be more prominently called up in the *objectives, programmes, activities* and *means of implementation* sections of the revised document. OH&S education should be specifically mentioned in *Agenda 21* at Chapter 3 (in connection with reproductive health care and family planning); again at Chapter 5 (as a complement to reproductive health, information dissemination and exchange and education); again at Chapter 6 Programme A (as a complement to primary health care needs) and Programme D (in respect of industrial and transport accidents) and Programme E (in respect of its role in preventing industrial disease and promoting industrial safety); at Chapter 7 in all programmes; at Chapter 24 in respect of women's issues; at Chapter 30 in respect of responsible entrepreneurship; at Chapter 31 in respect of codes of practice and guidelines related to science and technology; and at Chapter 36 in respect of reorienting education towards sustainable development and increasing public awareness (Chapters 3, 5, 6, 7, 24, 30, 31, 36).

3. The poverty gap remains and may be widening. Poor occupational and environmental health and safety (O&EH&S) conditions are amongst the hallmarks of poverty. The moral content of *Agenda 21* goes (a) to how present generations, in satisfying their wants, might not diminish the abilities of future generations to satisfy their wants and (b) to how present peoples in possession of great wealth might take action to close the poverty gap in our times by bringing basic living standards to all peoples. A great deal of work remains to be done and there is sometimes a failure of will on the part of the international community. The ICOH urges *Agenda 21* executives and UN agencies to review and enhance their commitments to closing the poverty gap. Some sections of the global community are outside the market mechanism and are tragic victims of market failure. Governments, businesses and civil and safe society NGO's must look for novel ways to provide the dignity of work to disenfranchised communities and through these ways bring these groups to the benefits that are available from being included in markets. Profit maximisation should not initially stringently dominate and confine the creativity of such efforts (Chapters 3, 6).

4. The demise of philosophical endeavour and relevance under post modernism, moral relativism and globalisation may well prove to be a more serious loss

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[1]Throughout this summary and the report itself, bracketed chapters e.g. (Chapters 3, 6) refer to *Agenda 21*. Numbers eg (13.13) refer to *Agenda 21* clauses.

than is presently recognised. Those new forms of leadership and social behaviour called for by philosophers and other economic thinkers, and reiterated in the *Brundtland Report* itself (pp. 39, 71) as vital to the success of sustainable development, may not easily be forthcoming. The ICOH urges *Agenda 21* executives and UN agencies to actively seek out and showcase examples of enlightened business leadership and good government and to continue to foster the will to implement these. Education for social and responsible business should be given a high policy priority. Duty of care in respect of OH&S and due diligence in respect of EH&S should maintain a high profile in such education, which education should be holistic in respect of its approach to sustainable development (Chapters 6, 20, 29, 36, 39).

5. The international community is urged to acknowledge that prostitution as work is implicated in the spread of HIV Aids. *Agenda 21* signatory governments are urged to combat illegal prostitution and to work within the legal prostitution sector to bring forward internationally uniform and workable occupational and general health procedures in testing and treatment of sex workers. Internationally uniform procedures for management of internationally mobile sex workers should also be developed. National governments should pay particular attention to the way in which imported seasonal or permanent work permit labourers supplement their income by engaging nationals in illegal prostitution. HIV Aids education should be obligatory for all sex workers especially those in developing countries. High level R&D into HIV Aids should also continue to be given to quality public domain research institutions. *Agenda 21* executives are urged to call up and name in their document the *Convention on the Rights of the Child. Agenda 21* executives are urged to work for the ratification amongst countries of the *Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict* and the *Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography* (Chapters 6, 25, 36).

6. Rio + 5 concluded that great progress had been made in establishing currency in use of the term sustainable development. Rio + 5 also noted that the real challenge was now the doing of sustainable development. While not in any way wishing to diminish recognition of the considerable government and business success in strategy development and tools and techniques inventions, the ICOH puts the view that many of the tools and techniques are in their early stages of development. Holding this view, the ICOH urges that *Agenda 21* executives encourage and promote further research into, and development, application and usage of, market based tools and techniques like the following: full cost accounting, O&EH&S technology assessment, life cycle analysis, design for environment, environmental engineering, clean production, integrated chemicals management, job safety analysis, "green" supply chain management, results based legislation, emissions trading, purchasing strategy and the various "greening" schemes in industry, all of which impact on O&EH&S (Chapters 8, 29, 30, 31, 34, 35, 39).

7. Accidents and natural disasters (floods, avalanches, mud slides and the like) continue to afflict workers and non-workers and rich and poor countries alike.

Historical data and early warning/prediction technologies are well developed. Governments are urged to employ these technologies and integrate them into enforceable town planning laws in respect to the settlement and/or recreational use of environmentally unstable areas. Such action could include resettlement and/or more innovative town planning. Such town planning could make use of prohibition. It could also investigate "have your cake and eat it" strategy based on better use of predictive natural disaster technology and database information, rapid mobilisation and evacuation response, and if topography permits, separation of work from general living infrastructure. There is no suggestion here that workers should be sent into unstable areas or settlements established there. Rather there is the suggestion that work be suspended and workers and tourists be removed from, and prohibited in, seasonally unstable areas at times when preventive technology is ineffective (Chapter 13).

8. The ICOH acknowledges the progress that has been made through integrated pest control management regimes and urges the continuation of these programs. Opinions offered during the writing of this report held that widespread misuse of agricultural chemicals and pesticides continues in both rich and poor countries as does an illicit trade and/or use in banned and dangerous chemicals. The impact of these on O&EH&S is substantial. There is evidence (the StarLink saga) for believing that safeguards presently in place for the conduct of experiments in genetically engineered insect resistant crop species failed on many levels. The ICOH urges that, in any review of *Agenda 21*, a high priority be given to pesticide management and that, as a matter of urgency, an international code of best experimentation practice in genetic crop engineering be developed and implemented. Technologies presently being developed to detect the illegal transport of dangerous substances by terrorists might, in the future, prove useful for detecting illegal trade in banned and dangerous chemicals (Chapter 14).

9. The ICOH recognises the potential benefit in biotechnology for rehabilitation of victims of industrial accident and trauma. The ICOH also acknowledges the warnings given by scientists of the potential for large-scale biotechnology catastrophe. There has been a most rapid development of biotechnology over the decade to Rio + 10 and this development highlights the need for an urgent update and rewrite of *Agenda 21* Chapter 16 biotechnology provisions. The ICOH calls for the early review of Chapter 16 and the development of uniform international standards and conventions for best practice O&EH&S in biotechnology. The ICOH does not underestimate the difficulty of this challenge. The ICOH condemns biological warfare and abhors the resurgence of interest in it by West and East and by "civil" and "uncivil" governments alike. The ICOH urges governments of all persuasions to work through the UN's *Biological Weapons Convention* towards containment of these horrible weapons of mass destruction (Chapter 16).

10. The ICOH recommends that the executives of the *United Nations Convention on the Law of the Sea* (UNCLOS) instigate a more regular and timely regimen of OH&S content meetings and that the UNCLOS bring renewed efforts to removal of piracy as a safety threat to seagoing workers (Chapter 17).

11. Industrial accidents continue to pollute water resources as recent examples in New Guinea and Hungary demonstrate. Pesticide and chemical pollution of water continues throughout the world in both rich and poor countries. Water distribution remains a very serious issue. Safe drinking water is a basic requirement of OH&S. Access to water for agricultural and industrial purposed is central to sustainable development. The ICOH urges *Agenda 21* to pursue with vigour its efforts to have the international community find the will to address the problem of safe drinking water and access to water for industrial and agricultural development. Areas identified and recognised as being in need of urgent attention should be reassessed. Clear targets should be redefined for these areas and pursued within specified time lines. The UN and its agencies should continue their efforts to facilitate country-by-country and regional plans for the provision of safe drinking water, a task which, in spite of its inherent difficulties, should be pursued with vigour. O&EH&S educational courses should continue to allow CEO's and shareholders the opportunity to realise the erosion of profitability that results from litigation to address negligence and failure of due diligence and duty of care in respect of water resources (Chapter 18, 36).

12. The ICOH applauds the full battery approach taken by *Agenda 21* to the toxic chemicals problem. There is reassuring evidence of both producer and consumer sovereignty selection of organic/chemical free produce. There is also reassuring evidence of improved chemicals management under integrated chemicals management and responsible care protocols with profitability savings driving better chemicals usage. Unfortunately access to these benefits is denied the majority of the world's people. Also, unfortunately, there is evidence of gross failure in industry conduct and performance in chemicals management, a continuation of trade in illegal substances and, in what is appearing to be a recurring theme, something of a failure on the part of government to enforce enacted legislation. The ICOH urges *Agenda 21* executives to call world leaders to conscience on the use and development of chemical weapons and to urge them to work through the UN's *Chemical Weapons Convention* to desist with such weapons in the work of war. The ICOH urges *Agenda 21* executives to review progress towards the set of year 2000 targets specified in *Agenda 21* and to continue with work in support of those revised targets. In particular, in respect of the considerable progress made in UN agency and UN sponsored internet available database information the ICOH urges an *Agenda 21* search for ways to convince governments to take up this information, enshrine it in education and legislation, and enforce that legislation (Chapters 16, 19, 20, 31, 35, 36).

13. The ICOH acknowledges the coming of age of the *Basel Convention* in the decade to Rio + 10 and urges governments to take their *Basel Convention* obligations seriously and to look for ways to strengthen the provisions, not weaken them. In this regard a Chapter 20 endorsement of the UN's clean production initiative is recommended as high priority in any *Agenda 21* update. The various UN clean production databases and links should be flagged and action taken to provide access to these databases such provision going to the commissioning of hardware and channels and enabling education,

especially in developing countries. In such an update OH&S should be called up by name in all Chapter 20 programmes.

The ICOH reiterates here its comment made in respect of the NGO sector and its call for a "between global summits" forum for NGO's and civil society groups. Such a forum would provide the opportunity to bring government failure and business failure issues to the attention of the voting public especially in the case of breaches in hazardous wastes dumping prohibitions.

The escalating use by terrorists and rogue governments of hazardous materials brings another dimension Chapter 20 and the *Basel Convention*. In any review of *Agenda 21* there should be particular attention paid to the content of Chapters 14, 15, 16, 19, 20, 22, 31, 34, 35, 36, 37, 38, and 39 in so far as the relevant parts of this content can be brought to the development of unified and synergistic policy and procedures to prevent access by terrorists to dangerous substances (Chapter 20).

14. On most accounts there has been a gross failure of the international community to manage the disposal and use of radioactive wastes. The ICOH calls for the international community to bring renewed vigour to the search for methods and actions to properly control the use and disposal of radioactive waste. The ICOH urges the international community to establish protocols which allow the search for, removal, and disposal of illegally held radioactive materials. The ICOH urges the international community to continue with, and enhance, efforts to assist nations suffering economic hardship to dismantle, and dispose of, unwanted and deteriorating nuclear infrastructure in both civil and defence sectors. In particular, international nuclear energy agencies and their associated professional societies are urged to cooperate to help insure that the highest standards of occupational and environmental health are employed in their industry on a day-to-day basis.

The continuing and illegal trade and use of radioactive wastes, continues to defeat sustainable development and mock safe and civil society. This illegal trade is compounded by similar trades and usage in land mines, drugs, biological material and chemicals. Trickledown from these trades afflicts a wide range of workers: farmers (and nearby residents and workers), customs officials, doctors and nurses, peace keepers and care workers, transport workers, armed and emergency service workers, teachers and students, and security workers are among those facing increased work risk as a direct result of these activities. *Agenda 21* officials, the UN and its agencies, and the international community of governments are urged to set early specific time targets for the eradication of these illegal activities and to bring powerful and effective resources to this eradication. The ICOH urges *Agenda 21* executives to call up nuclear control and disarmaments conventions in their documents and supports the UN and its agencies and participating governments in their work to contain nuclear weapons proliferation.

Finally it makes no sense to have these safeguards in place without effective plans to abate terrorist misuse of radioactive substances. International governments are urged to work more diligently with each other and with the

UN and its agencies to prevent theft and illegal trade in radioactive substances by terrorists.

Urgent review of Chapter 22 is advised. In addition immediate consideration should be given to the partial review of Chapters 16, 31, 34 and 35 with a view to bringing a more consistent, effective and integrated approach to the solution of the problem of misuse of radioactive material, drugs, chemicals, biological substances and land mines (Chapters 16, 22, 31, 34, 35).

15. Workplace violence and bullying (in themselves and especially against women) and discrimination against women in the workplace should be high agenda OH&S reform initiatives in rich and poor countries alike (Chapter 24).

16. Many indigenous and non-indigenous people question the progress in integrating indigenous peoples into cultures and societies brought to their traditional lands by economic development. These cultures are often foreign to indigenous peoples in complex ways. Indigenous peoples continue to profile poor general health, environmental health and occupational heath. Greater attention needs to be paid to the crucial place and role of "traditional" work in indigenous societies and its contribution to individual and societal wellbeing and health. Closer attention needs to be given to the rate at which modern work practice can be brought to the benefit of indigenous peoples and in what ways and under what terms and conditions. Governments are urged to consult carefully and sincerely with indigenous peoples and to search for more creative and effective ways to bring good work and good OH&EH&S to indigenous peoples (Chapter 26).

17. The ICOH urges the UN to give a higher profile and support to its NGO section, and also urges the NGO section itself to search for new ways to involve active NGO's in ongoing business. At least once between Global Summit meetings the NGO section should host a forum for NGO input. The ICOH invites the NGO section to partly commission the ICOH to host first world congresses on the OH&S of peace keepers and international aid workers and on the O&EH&S of maritime and sea going workers (Chapter 27, 38).

18. The ICOH applauds the wide-ranging work of the ILO and continues its longstanding NGO relationship with that organisation. The ICOH brings the attention of industry executives to the ILO *Safe Work* programme. The ICOH requests *Agenda 21* executives to name and promote the relevant ILO OH&S conventions in the *Agenda 21* document. Governments are asked to be particularly vigilant in respect of any diminution and weakening of these conventions that might result from globalisation. Governments are reminded of their obligation under Article 22 of the *Constitution of the International Labour Organisation* to report the measures they have *taken to give effect to the provisions of Conventions to which* they are *a party*. The ICOH acknowledges that only 37 countries have ratified *ILO C155 Occupational Safety and Health Convention* and notes in general the low ratification rates of relevant ILO conventions, for example, ILO Conventions 32, 53, 62, 78, 167, 174, 176, 184 and others. The ILO and its agencies and governments are

encouraged to work together to achieve a better ratification rate of these and other relevant OH&S conventions.

A perusal of ratification rates of ILO conventions relative to OH&S reveals something of the core dilemma of sustainable development namely, the poverty gap. Some of the countries having less enviable OH&S conditions are among those who have ratified the conventions while some countries having more enviable OH&S conditions are among those who have not ratified. There is inequality of access to a safe working life and the poverty gap remains. There can be no pretending about the amount of work that needs to be done on the part of the international community if sustainable development is to become a reality. There can be no failing of will on the part of governments and the international community if sustainable development is to become a reality (Chapter 29).

19. The attention of the UN and its agencies and national governments is again drawn to the benefits inherent in encouraging the continued development and refinement of business and market oriented O&EH&S tools and techniques for sustainable development. These tools and techniques should be developed and refined to such an extent that outcomes from their application can be measured. Such refined tools and techniques should continue to be called up in legislation and enshrined in codes of practice. Examples of these tools and techniques were given at Item 6 (Chapter 30).

    The ICOH supports the *Responsible Care* approach, notes that it is voluntary and draws the attention of CEO's to its provisions for O&EH&S. It is noted that the *Business Charter for Sustainable Development* appears to give more emphasis to EH&S than it does to OH&S, which is not mentioned by name. Likewise the UNEP's *International Cleaner Production Clearing House* (ICPIC), the UNIDO's *Industrial and Technological Information Bank* (INTIB) and the ICC's *International Environment Bureau* (IEB) emphasise environmental health. *Agenda 21* executives should also call up codes which give equal emphasis to the importance of OH&S.

    Ratification rates of some UNEP documents are relatively low. The ICOH urges *Agenda 21*, UNEP and ILO executives to strike out for higher ratification rates for ILO and UNEP conventions and documents. Governments are asked to take their OH&S obligations seriously, to provide the channels for access to UN databases, codes and conventions, to provide complementary enabling education, to call up these conventions (or equivalent ones) in legislation, and to bring to their peoples the full protection of that legislation (Chapters 29, 39).

20. The ICOH welcomes the emergence of the environmental business sector, and the potential inherent in this for genuine tripartite cooperation. The ICOH acknowledges the progress made by the business sector towards best practice in O&EH&S and sustainable development. The ICOH recognises the *beyond compliance* progress of some firms and urges those firms to act in the *beyond compliance* mode when they do business in countries other than their home country. Governments are encouraged to further assist business by giving

priority in their purchases to firms that clearly demonstrate product and process stewardship in O&EH&S. Governments are still further encouraged to assist those firms by bringing severe legislative penalties against other businesses that fail to meet their O&EH&S obligations. Governments should carefully audit the product and process certification procedures and labelling agencies and insist that satisfaction of international standards (or their equivalent national ones) be a precondition to the issue of approved O&EH&S labels and certificates.

Notwithstanding the substantial O&EH&S progress made by the business sector, the ICOH also recognises that within the business sector capture of the health, safety and environment agenda there is a wide range of performance: there is insincerity, false advertising, misuse of labels and brand certification, false statement, and misleading brand names. The ICOH urges governments to bring down heavy penalties against businesses that wilfully and knowingly cheat and also to make government purchasing from such firms contingent upon rectification of dishonest behaviour.

The ICOH holds an opinion that the force of globalisation will be better harnessed to the achievement of sustainable development if complementary educational courses in social and responsible business and safe and civil society are developed and widely proliferated. Such courses should target three broad groups: parliamentarians and their senior advisors/operatives, CEO's and their corporate legal advisors/operatives, and primary, secondary and tertiary students and their teachers. The ICOH also urges an expansion in purchasing education courses (Chapters 39, 30, 36).

21. *Agenda 21* and the UN agencies are encouraged to continue promoting sustainable development (including the ethical component of sustainable development) as a "social" final cause of science. O&EH&S NGO's in particular, and all scientific NGO's in general, are actively encouraged to admit papers on science and ethics in their annual meetings (Chapters 31, 35, 36).

22. The ICOH applauds *Agenda 21* and UN agencies for their continued work in, and support of, the open society. The ICOH requests that more resources be given to the continued development and revision of UN and UN agency web based scientific databases, and that a search be made for ways to make these databases more widely accessible to the general public, schools, and professional and scientific organizations in poor and developing countries. The attention of the scientific community is again drawn to the urgent need for workable and enforceable codes of conduct for biotechnology and the full life cycle management of radioactive substances (Chapters 31, 35, 36, 40).

23. Farmers are recognised as a hard to reach group for OH&S policy and preventive strategy. Governments are particularly urged to enforce existing standards in the O&EH&S use of agricultural chemicals and to actively pursue their efforts to bring O&EH&S education and integrated chemicals management and pest control education to farmers, particularly in developing countries (Chapter 14, 29, 32).

24. The ICOH acknowledges the substantial progress made in education, training and public awareness for sustainable development. The ICOH asks that in any review of *Agenda 21*, OH&S be given equal status with EH&S in education for sustainable development. The ICOH highlights two concerns: (1) that the progress towards education and training, although considerable, is uneven within and between countries and (2) that individuals and organizations fully benefiting form education and training sometimes remain unable to consolidate those benefits. Youth, women and lower hierarchy members can be robbed of empowerment to access good O&EH&S environments. With this concern in mind, the ICOH recommends that the UN agencies continue to remind senior executives, members of parliament and senior public servants about the need for education in the management and promotion of change, empowerment technique, natural right and law and civil and safe society. The ICOH calls national leaders to conscience on these issues.

The ICOH notes with alarm the relative demise over the decade to 2002 of public funding of courses in arts and letters, philosophy, politics, government and civil society, peace, disarmament and negotiation studies, and language and cultural studies. An opinion is held that these studies, both in themselves and through the essential tension generated between them and more technical and "objective" disciplines, can be crucial in sparking those new conceptual and values breakthroughs in social and cultural development thinking of the kind called for in the *Brundtland Report* itself (pp. 39, 71). The ICOH reiterates its call for international education in safe and civil society and social and responsible business and for open society promotion of duty of care and due diligence in O&EH&S.

The ICOH recognises the moral relativity of the post-modern age in which we live, and constructivism in education as one manifestation of this age. Notwithstanding the liberating benefits that such developments can bring, the ICOH recognises a need for society to guard against the erosion of will that can also accompany such developments, especially when such erosion of will is combined with a devaluation of the hard science which underlies many of the codes and standards vital to the success of O&EH&S and sustainable development. Hard sciences, like the humanitarian disciplines mentioned earlier, have a most vital role to play in sustainable development and there should be a balance between them and the social sciences and a search for synergy

In respect of education and training specific to OH&S: the WHO and ILO have emphasized the need for quality occupational health services including education. Yet it remains difficult to implement the services due to limited resources in developing countries and a lack of understanding and/or interest on the part of responsible parties. A further problem arises when individuals in a developing country are forced to travel overseas to seek education. Often they may not return and their skills are lost to their community, further hindering development of occupational health services. Ultimately this loss negatively impacts economic development and growth. Recognizing the need for occupational health services is vital for maintaining a quality workforce.

Critical to this is the ability to educate occupational health professionals. If emphasis is placed on education within the community, individuals trained in occupational health and safety will have the skills necessary to promote occupational health and development and there is less likelihood they will be lost to the community.

The UN and its agencies have been quick to harness the growth of the Internet, and telecommunications, to the task of making quality education materials available for uptake in diverse locations. The ICOH, through its scientific committees, has the resources to assist in the development of these programs. The use of distant educational sites has the potential to make it economically possible to educate a great number of specialists in occupational health and safety in developing countries. The ICOH encourages the WHO and ILO to continue developing this means of education and, in particular, to look for ways to ensure that infrastructure and hardware networks are available for this purpose (Chapter 36).

25. The ICOH urges *Agenda 21* executives not to let the importance of its sustainable development work be crowded out by the need to also combat ongoing and resurgent terrorism, ethnic cleansing and historical and religious hostility (Chapters 15, 19, 20, 22, 39 but relevant to all chapters).

26. There has been an explosion of information in the decade to Rio + 10 and increased access to this information has benefited many. However there is a severe inequality of access, such inequality being caused by, and continuing to cause, poverty itself. The ICOH acknowledges the work of the UN and its agencies in the development of scientific databases in O&EH&S. The continuance of this work is considered equally vital to the search for ways to make these databases easily and widely accessible in developing countries. Ways must be found to make the substantial and freely available OH&S web resources more accessible to the world's poor. This task must involve assistance with channel infrastructure and hardware but must also involve empowerment of access to, and complementary education for, web database information (Chapters 36, 40).

27. The ICOH recognises the Rio + 10 "review" process as part of the process of ongoing *reform and revitalization of the United Nations system* (38.2) and urges national governments to cooperate fully with *all relevant agencies, organizations and programmes of the United Nations system* charged with promoting *concrete programmes for the implementation of Agenda 21 and also* with providing *policy guidance for United Nations activities or advice to Governments, upon request, within their areas of competence* (38.7b). The ICOH welcomes the opportunity to be a part of this process and reiterates its call that a higher profile be given to the role of OH&S in sustainable development. The ICOH urges the ILO to address the relatively poor ratification rates of its OH&S relevant conventions and, through these conventions, to work more closely with *Agenda 21* executives to find better ways to help insure a good working life for all. The ICOH invites *Agenda 21* and ILO executives to make better use of its long standing NGO status in OH&S and, as stated elsewhere, to commission through it, first international

conferences on the O&EH&S of peace keepers and international aid workers, and maritime and sea-going workers. Finally the ICOH urges *Agenda 21* executives not to let the importance of its sustainable development work be crowded out by the need to also combat ongoing and resurgent terrorism, ethnic cleansing and historical and religious hostility.

1.0 INTRODUCTION

Although occupational health and safety (OH&S) is/are not mentioned specifically by name in the Rio Declaration, their presence is inherent in Principle 1: *Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.* The first sentence of Principle 7 (*States shall cooperate in a spirit of global partnership to conserve, protect, and restore the health and integrity of the earth's ecosystem.)* acknowledges environmental health. Principle 10 states, among other things, *that each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities and the opportunity to participate in decision-making processes.* In naming *victims of pollution* and the transfer of *substances and activities harmful to health* Principles 13 and 14 respectively acknowledge occupational and environmental health.

The key role of occupational health in sustainable development is thus recognised in the Rio Declaration and consequently it is appropriate for the International Commission on Occupational Health (ICOH) to participate in the Rio + 10 review. This report formalises that participation.

2.0 THE RIO + 10 REVIEW PROCESS

2.1 Terms of Reference for the Johannesburg Assessment Process

The work of UNCED (enshrined in the Rio Declaration) is, under the aegis of the Commission on Sustainable Development (CSD), partly progressed through a programme of action known as *Agenda 21*. The Rio+10 process asks the following questions about *Agenda 21*:

a) What has been accomplished since 1992?
b) What have the participating countries done so far to implement *Agenda 21*?
c) Have they adopted the national sustainable development strategies as they agreed they would by 2002?
d) Have they ratified the conventions that aim to prevent loss of biodiversity or ensure women's rights as they agreed to do in 1992?
e) What obstacles have they encountered? What lessons have they learned about what works and what does not?
f) What new factors have emerged to change the picture?
g) What mid course corrections need to be made to reach the goals?
h) Where should further efforts be concentrated?

Rio + 10 will not open *Agenda 21* for revision. Rather it will seek consensus on (a) the general assessment of current conditions, and (b) on priorities for further action in new areas and issues.

Agenda 21 consists of 40 chapters that address a wide range of issues. This report will largely confine itself to comment about occupational health and safety (OH&S). However it will also at times comment on environmental health and safety (EH&S) in so far as it impacts on, and is interlinked with, OH&S and the workplace.

2.2 How this report addresses the terms of reference

First the content of *Agenda 21* was searched for references to the responsibilities it prescribes for OH&S. In this regard, the relevant terms of reference questions were interpreted as though they were applying to OH&S. The results of this search were compiled as a commentary and distributed to ICOH members with a request that they comment directly on any aspect of OH&S (or the commentary itself) that concerned them. A final draft was produced in the light of member's contributions and an Executive Summary was made. These are offered as part of this report and serve, inter alia, as the ICOH's general assessment of *current conditions* and a *statement about further action in new issues and areas*.

3.0 REPORT AND COMMENTARY

Agenda 21 consists of a Preamble (Chapter 1), seven chapters (Chapters 2 to 9) which make up Section I named *Social and Economic Dimensions*, fourteen chapters (Chapters 9 to 23) making up Section II, *Conservation and Management of Resources for Development*, 10 chapters (Chapters 23 to 32) making up Section III *Strengthening the Role of Major Groups,* and eight chapters (Chapters 33 to 40) making up Section IV *Means of Implementation.*

Most chapters in *Agenda 21* follow a common structure that organises the content under main headings: *objectives, programs, activities and means of implementation*. These terms, when used in this report, carry the *Agenda 21* meaning and usage with them.

Chapter 1: The Preamble

The preamble refers to worsening ill health and deterioration of that human habitat on which humans *depend for their wellbeing* and talks of a *safe and prosperous future*. A footnote informs that throughout *Agenda 21* the term *environmentally sound* means *environmentally safe and sound* in particular when applied to *energy sources*, to *energy supplies*, to *energy systems* and to *technology or technology sources*.

Agenda 21 employs a wide and inclusive interpretation and usage of the term environment such that it includes, inter alia, the workplace environment. And the footnote does directly link safety to major work areas such as energy and technology. However a view is expressed here that the preamble links to OH&S are too oblique and indirect and do not adequately represent the central position and importance of good OH&S in sustainable development. Thus:

ICOH Comment 1

In any future revision of *Agenda 21*, OH&S should be mentioned by name and its central importance in sustainable development should be acknowledged and clearly stated in words.

Chapter 2: International cooperation to accelerate sustainable development in developing countries and related domestic policies

This chapter recognises four broad areas of macro strategy: (A) promoting Sustainable Development through trade, (B) making trade and development mutually supportive, (C) providing financial resources to developing countries and, (D) encouraging economic policies conducive to sustainable development.

OH&S is mentioned on two accounts. First under Programme A (promoting Sustainable Development through trade) *OH&S matters, technology transfer and services associated with the production, marketing and promotion of commodities, as well as environmental considerations, should be taken into account* (2.16 o*)* whilst under Programme (B) (making trade and development mutually supportive) *care must be taken to ensure that environment-related regulations or standards, including those related to health and safety standards, do not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade* (2.22 dd). The report also points out that *standards valid for developed countries may have unwarranted social and economic costs in developing countries* (2.20*)*.

ICOH Comment 2

The ICOH acknowledges the work already achieved within the UN and its agencies through the establishment of codes, guidelines and procedures that define OH&S and civil society responsibility for institutions involved in trade creation and economic development. The ICOH encourages legislators to continue to frame laws that will assist (and firmly require) all of business to self-police its own social and responsible behaviour in these matters. The ICOH encourages *Agenda 21* executives, working through UN agencies, to encourage governments to enshrine these requirements in their supply chain purchasing protocols and to further educate senior managers in large enterprises to do the same. Furthermore the ICOH encourages the UN and its agencies to continue to foster OH&S auditing and reporting and to search for ways to more effectively extend the reach of due diligence and duty of care legislation to CEO's and shareholders who wilfully and knowingly ignore such reporting.

The ICOH advocates the continuation and strengthening of all *Agenda 21* initiatives in this area and the further development of strong and enforceable audit procedures to help circumvent trade induced and assisted abuses of health, safety and civil society. Trade or non-trade induced creation of conscripted child labor, child prostitution and the forced enlistment of children to armed combat are advocated as prime targets for trade sanction control. So too the trade in land mines, and illegal arms which in addition to their own intrinsic evils have devastating trickledown consequences for workers and their families. The ICOH recognises that child labour in itself, correctly managed, can have beneficial consequences for children voluntarily wishing to be involved in that labour.

The ICOH also acknowledges the work done in developing tools and techniques for audit and technology assessment and advocates the continuation of these initiatives. It advocates that occupational and environmental health assessment and surveillance

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ICOH Comment 2 (Con't)

techniques be further developed and refined. The ICOH acknowledges that many of the trade engine tools and techniques already available (and also laws which support them) fail in their effectiveness for the want of political and leadership/managerial will. The ICOH urges that in any review of *Agenda 21*, consideration be given to discover ways to convince legislators in signatory countries to give the full backing of the law to new and refined trade based preventive initiatives and to look to ways to encourage in governments the will to police those initiatives. In the interim, and to help with the loss of will in government, the ICOH encourages *Agenda 21* executives to request UN agency operatives to more fully cooperate with, and use, the NGO sector and civil society movements to help keep reform agendas in the public view.

It is recognised that in the ten years since Rio there have been socio economic changes of global proportions: globalisation itself and severe and horrible clashes of culture and religion. And it is acknowledged that in some cases the world community has shown itself capable of large scale, cooperative and decisive action. In respect of globalisation however it is being mooted that government might be losing some of its relevance and its ability to maintain standards. The ICOH advocates that through *Agenda 21*, UN agencies press governments to reassert their lawful and democratic authority and, through this reassertion, require and maintain high levels of occupational and environmental health performance of themselves, of workers and of companies both national and international. In this regard the development of educational and legislative programmes in social and responsible business and business leadership are considered a high priority given the speed of globalisation.

Chapter 2 of *Agenda 21* should be reviewed and reinterpreted to take account of the substantial forces and change of globalisation. Any such review should, inter alia, focus on ways to harness occupational health reform to globalisation forces. Given the central role of trade in globalisation, trade based preventive initiatives have great potential. In particular any such review or reform of Chapter 2 should identify forms of work and work practice and dirty trade and technology exchange activity that will not be tolerated in civil society, set time targets for their eradication, develop activity-specific trade and non trade tools for their amelioration and, where possible, have these tools more widely enshrined in UN agency practice and in laws governing business practice in signatory countries. Such initiative should be complemented by legislative and managerial education initiatives in social and responsible business. To give the *Agenda 21* words a twist, nations should be encouraged to ensure that trade do(es) *not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction against* occupational and environmental health reform and the exploitation of children and not only the other way round as the present *Agenda 21* caveat expresses it.

Chapter 3: Combating poverty

This chapter is general in nature and OH&S is not specifically mentioned. The chapter can be said to be concerned with finding a*n effective strategy for tackling the problems of poverty, development and environment simultaneously* (which) *should begin by focusing on resources, production and people and should cover*

demographic issues, enhanced health care and education, the rights of women, the role of youth and of indigenous people and local communities and a democratic participation process in association with improved governance (paragraph 3.2.).

The question of women and OH&S is addressed elsewhere, (Chapters 5, 6, 24, 29), likewise for youth (Chapter 25) and indigenous peoples (Chapter 26) and will be discussed under these chapters in this report. With respect to health aspects of Chapter 2 it is noted that OH&S information is not named as important knowledge in respect of reproductive health care and family planning. This surely must be an oversight. Thus ICOH comment 3:

ICOH Comment 3

OH&S education should be specifically promoted in *Agenda 21* as an important complement to knowledge about reproductive health care and family planning.

Chapter 4: Changing consumption patterns

OH&S is not mentioned in this chapter, which focuses on strategy for finding sustainable patterns of production and consumption and on public policy for transition to such found patterns. The chapter does acknowledge the very strong influence government purchasing policy can have in encouraging and rewarding agencies and departments which comply with sustainability regulations (paragraph 4.23). Consumer education (public awareness) is cited at paragraph 4.22 for its efficacy in making people *aware of the health and environmental impact of products through such means as consumer legislation and environmental labelling.*

ICOH Comment 4

The ICOH recognises the market power of purchasing strategy in selecting out good occupational and environmental health product, process and technology and the work done through the *Agenda 21* process and UN agencies to foster the adoption by signatory countries of O&EH&S purchasing policy strategy. Signatory *Agenda 21* states are urged to make fuller use of purchasing strategy and the synergies inherent in it for progress towards the sustainable development initiative.

Chapter 5: Demographic dynamics and sustainability

This chapter addresses demographic factors and trends, their impact on sustainable development, the dissemination of knowledge about that impact and the implementation of environment and development programs to accommodate those trends and their impacts. There is a focus on environmental health itself rather than on its implications for OH&S. By its nature the chapter does not lend itself to specific considerations of OH&S. However health considerations are called up in respect of women's status and health, national policy for development (livelihood, quality of life and good health are mentioned) and the development of an holistic view about poverty, secure livelihood,

good health, quality of life, access to education and training, and empowerment of individuals and communities.

Again knowledge about OH&S is not thought important enough for specific mention in respect to: women's affairs, reproductive health and family planning (paragraphs 5.12, 5.51) information dissemination and exchange, research and reports etc (paragraph 5.13), or education (paragraphs 5.37, 5.41 and 5.51).

ICOH Comment 5

OH&S should be mentioned by name in this chapter of *Agenda 21* under reproductive health, information dissemination and exchange and education.

Chapter 6: Protecting and promoting human health conditions

This chapter is concerned with five program areas: (A) meeting primary health care needs, (B) control of communicable disease, (C) protecting vulnerable groups, (D) meeting the urban health challenge and (E) reducing health risks from environmental pollution and hazards.

Program A (meeting primary health care needs) is predicated on the belief that *the health sector cannot meet basic needs and objectives on its own; it is dependent on social, economic and spiritual development, while directly contributing to such development* (6.3).

Furthermore, *it* (the health sector) *is also dependent on a healthy environment, including the provision of a safe water supply and sanitation and the promotion of a safe food supply and proper nutrition. Particular attention should be directed towards food safety, with priority placed on the elimination of food contamination; comprehensive and sustainable water policies to ensure safe drinking water and sanitation to preclude both microbial and chemical contamination; and promotion of health education, immunization and provision of essential drugs* (6.3).

The objective (*to meet the basic health needs of rural peri-urban and urban populations; to provide the necessary specialized environmental health services; and to coordinate the involvement of citizens, the health sector, the health-related sectors and relevant non-health sectors (business, social, educational and religious institutions) in solutions to health problems* (6.4) is to be met (a) by building health infrastructures, monitoring and planning systems and (b) supporting research and methodology development. None of the 14 activities called up under (a) and (b) above specifically mentions OH&S. There was no recognition that sustainable development synergies exist when occupation and environmental health concerns are really different forms of the one cause such as for example, industrial deafness and environmental noise, workplace lead poisoning and environmental lead, crop spray poisoning and environmental spray-drift induced allergy.

Three ICOH comments are now made in respect of Programme A.

ICOH Comment 6

The moral content of *Agenda 21* goes (a) to how present generations, in satisfying their wants, might not diminish the abilities of future generations to satisfy their wants and (b) to how present peoples in possession of great wealth might take action to close the poverty gap in our times by bringing basic living standards to all peoples. It is self evident that a great deal of work remains to be done and that this is sometimes accompanied by a failure of will. The ICOH urges *Agenda 21* executives and UN agencies to review and enhance their commitments to closing the poverty gap in our times. Poor OH&S status accompanies poverty.

ICOH Comment 7

The demise of philosophical endeavour and relevance under post modernism, moral relativism and globalisation may well prove to be a more serious loss than is presently recognised. Those new forms of leadership and social behaviour called for by philosophers and other economic thinkers, and reiterated in the *Brundtland Report* itself (pp. 39, 71) as vital to the success of sustainable development, may not easily be forthcoming. The ICOH urges *Agenda 21* executives and UN agencies to actively seek out and showcase examples of enlightened business leadership and good government and to continue to foster the will to implement these. Education for social and responsible business should be given a high policy priority. Duty of care in respect of OH&S and due diligence in respect of EH&S should maintain a high profile in such education, which education should be holistic in respect of its approach to sustainable development.

ICOH Comment 8

The ICOH recommends that in any future review of *Agenda 21*, OH&S be specifically cited under Program A and that a search be made for policies that can utilise O&EH&S synergies.

Program B (control of communicable disease) deals with diseases such as cholera and HIV Aids and does not directly call up OH&S.

Program C (protecting vulnerable groups) names infants, youth, women, indigenous people and the very poor as vulnerable and speaks in general terms about health. Occupational health is not mentioned specifically even though child labour and prostitution are mentioned (paragraph 6.19). Specific occupational health activities under this program encourage action to protect children from the effects of environmental and occupationally toxic compounds (6.27 a iv) and the establishment of legal frameworks to protect children from prostitution and workplace exploitation. Initiatives specified for youth, women, and

indigenous people are couched in terms of general health and do not address occupational health issues.

Conscription of children to sweatshops, prostitution and armed combat has been commented on above in respect of trade-based strategy. The ICOH position on conscription of children to sweatshops, child prostitution, and armed conflict is that such jobs should not exist. Greater efforts should be made to assist countries to bring the full and severe force of the law to their prevention.

ICOH Comment 9

Agenda 21 executives and other UN agencies are urged to continue to work with renewed vigour and force against child prostitution, child sweatshops and the conscription of children to armed combat. Governments are asked to pay particular attention in illegal prostitution in respect of the part it plays in the spread of HIV aids. Governments are asked to work actively and urgently within the legal prostitution sector to bring forward workable procedures and testing to help eradicate the contribution of that work activity to the spread of HIV Aids. High-level research funding for HIV Aids should continue.

Program D (meeting the urban health challenge) faces the belief that urban growth has outstripped society's ability to meet human needs. It outlines the unacceptable status of environmental health in many countries and specifies areas of concern: respiratory disease, tuberculosis, and meningitis as outcomes of overcrowding, and high mortality and morbidity in association with high pollution.

Program objectives call/called for a 10-40% improvement (by 2000) in environmental housing and health service indicators. A call is made for quantitative objectives for infant mortality, maternal mortality, percentage of low birth weight newborns and specific indicators (e.g. tuberculosis as an indicator of crowded housing, diarrhoeal diseases as indicators of inadequate water and sanitation, rates of industrial and transportation accidents that indicate possible opportunities for prevention of injury, and social problems such as drug abuse, violence and crime that indicate underlying social disorders (6.33).

Countervailing action recommends, inter alia, enhanced intersectoral committee performance, strengthened local (municipal) authority enablement strategy that bestows some strategy ownership to citizens, and public health education in schools and workplaces and through the mass media. Strengthened environmental health service, survey and documentation of environmental conditions and networks for the exchange of good practice are also advocated. Improved practical and standardised indicators, in-service training for municipal staff and improved managerial know how are considered vital to strategy implementation.

Of all the Program D objectives the call for quantitative objectives for transportation and industrial accidents is the only one that relates directly to OH&S. The question this poses for ICOH members is whether such accidents and their prevention are being recognised in the countervailing actions mentioned, viz, in various committees, enablement legislation and strategy, public and workplace education and so on as detailed in the penultimate paragraph.

> ICOH Comment 10
>
> Large scale industrial and transport accidents continue to happen and industrial mortality and morbidity continue to afflict both rich and poor countries. The ICOH urges *Agenda 21* executives to bring a higher profile to OH&S prevention activity in Programme D.

Program E (reducing health risks from environmental pollution and hazards) is probably as close as the chapter comes to acknowledging that the work activity of people is at the centre of much of the human health problem. It notes that *in many locations around the world the general environment (air, water and land), workplaces and even individual dwellings are so badly polluted that the health of hundreds of millions of people is adversely affected* (6.39). It does (not directly but rather obliquely) go on to acknowledge that good occupational health performance could be the start of improved environmental health this acknowledgement being evident through the statement of activities for industry that will be further addressed below.

Even though the report states that standards constructed for developing countries may impose unsustainable costs on newly industrialised countries it goes on to list strategy objectives that *might minimise hazards and maintain the environment to a degree that human health and safety is not impaired* (6.40).

The objectives, reproduced in full below are/were very challenging.

> *(a) By the year 2000, to incorporate appropriate environmental and health safeguards as part of national development programmes in all countries;*
>
> *(b) By the year 2000, to establish, as appropriate, adequate national infrastructure and programmes for providing environmental injury, hazard surveillance and the basis for abatement in all countries;*
>
> *(c) By the year 2000, to establish, as appropriate, integrated programmes for tackling pollution at the source and at the disposal site, with a focus on abatement actions in all countries;*
>
> *(d) To identify and compile, as appropriate, the necessary statistical information on health effects to support cost/benefit analysis, including environmental health impact assessment for pollution control, prevention and abatement measures* (6.40i).

Countervailing programs advocated centre on the development of technology for urban and indoor air pollution, water pollution, solid waste disposal, and the control of pesticides and their safe transportation and storage. Enhanced public policy and standardisation for noise impact, ionising and non ionising radiation including ultraviolet radiation are required together with enhanced environmental and health monitoring skills, enhanced research and methodology development in respect of multiple exposure to hazards, long term exposure at low levels and biological markers as monitors.

The activities for industry and energy production and for injury monitoring and reduction do acknowledge the occupational safety and health component of sustainable development:

Industry and energy production:

1. *Establish environmental health impact assessment procedures for the planning and development of new industries and energy facilities;*

2. *Incorporate appropriate health risk analysis in all national programmes for pollution control and management, with particular emphasis on toxic compounds such as lead;*

3. *Establish industrial hygiene programmes in all major industries for the surveillance of workers' exposure to health hazards;*

4. *Promote the introduction of environmentally sound technologies within the industry and energy sectors (6.41)*

and

Injury monitoring and reduction:

5. *Support, as appropriate, the development of systems to monitor the incidence and cause of injury to allow well-targeted intervention/prevention strategies;*

6. *Develop, in accordance with national plans, strategies in all sectors (industry, traffic and others) consistent with the WHO safe cities and safe communities programmes, to reduce the frequency and severity of injury;*

7. *Emphasize preventive strategies to reduce occupationally derived diseases and diseases caused by environmental and occupational toxins to enhance worker safety* (6.41k).

Technology transfer backed up by (a) national campaigns for human resource development of environmental health managers and inspectors, (b) establishment of environmental health (occupational health is not mentioned by name) courses in secondary schools and universities and for the general public and (c) the establishment of a practical skills base in environmental health and risk reduction are advocated as countervailing strategy options. Again occupational health is not mentioned.

It is disappointing that OH&S was acknowledged more in the objectives than in the activities designed to attain those objectives.

ICOH Comment 11

The ICOH recommends that *Agenda 21* mention OH&S by name in Programme E. Enhancing the status of OH&S in this way will bring greater authority to the ILO and WHO and their agencies in their ongoing work against industrial disease and for industrial safety. The ICOH further recommends that in any revision of *Agenda 21*, OH&S be given greater profile and status in the activities section. All the objectives and activities imply considerable innovation and change. The ICOH recommends that education about the management of innovation and change be provided to enable better take up of benefits of such change. Course syllabi should, inter alia, contain modules on OH&S costs and benefits that can accompany technological and social change.

ICOH Comment 12

Whilst the ICOH is a Permanent Commission dedicated to OH&S (and EH&S in so far as this impacts on OH&S), many of its members are involved in general health matters. The ICOH applauds the Chapter 6 *Agenda 21* work being done by the UN agencies. It urges a review of general health targets and plans and renewed efforts to realise these plans.

Chapter 7: Promoting sustainable human settlements development

The overall objective of this chapter is *to improve the social, economic and environmental quality of human settlements and the living and working environments of all people by the year 2000 and beyond – including the growing number of unemployed – the no income group* (7.3). Two overriding perspectives are flagged. First it is noted that consumption patterns of cities are *severely stressing the global ecosystem* at a time when *settlements in the developing world lack access to sufficient raw material, energy, and economic development simply to overcome basic social and economic problems* (7.1). Second, particular mention is made of the relevance of this chapter to the needs of *the rural and urban poor, the unemployed and the growing number of people without any source of income* (7.4). Particular mention is made of specific community groups specified as special interest groups: women, indigenous people, the elderly and the disabled.

Eight programme areas are specified:

> A. *providing adequate shelter for all;*
>
> B. *improving human settlement management;*
>
> C. *promoting sustainable land-use planning and management;*
>
> D. *promoting the integrated provision of environmental infrastructure: water, E sanitation, drainage and solid-waste management;*
>
> E. *promoting sustainable energy and transport systems in human settlements;*
>
> F. *promoting human settlement planning and management in disaster-prone areas;*
>
> G. *promoting sustainable construction industry activities;* and
>
> H. *promoting human resource development and capacity-building for human settlement development (7.5).*

Although working environments were mentioned in the statement of the overall objective, OH&S is not well highlighted in any of the eight programmes. The promotion of employment that is *environmentally sound and protective of human health* forms part of objective (d) of Programme (B). Traffic safety (and therefore the workplace of road construction workers) is mentioned in passing as a public awareness target under the means of implementation for Programme (E).

Programme (F) lists its first activity as promoting a *culture of safety* (7.60) to complement *pre disaster planning* and *post disaster reconstruction* (7.60) but "man made" (OH&S disasters) seem to take second place to natural disasters. This programme highlights one of the most difficult challenges for sustainable occupational and environmental health. The groups mentioned (the poor, the disabled, the unemployed and in some countries, women) do not, for example, rebuild and work in the path of the volcano or on the hill prone to mudslide because they are "stupid" (as some experts say) but rather because they lack empowerment to act otherwise. Whilst the general thrust of the programme is aimed at macroeconomic solutions to sustainability it might be fair to say that more specific tactics are also needed. In respect of recurring natural disasters which are discernable at the level of topography, relocation needs to be investigated as an option and preventive town planning reuse strategy be sought for and implemented.

The objective of Programme (G) calls for the international exchange of information which *will enable the construction sector to meet human settlement development goals while avoiding the harmful side effects on human health and the biosphere* 7.68). OH&S is not specifically named in the activities. Activity 7.69c of this programme specifies the use of standards, design and technology beneficial to economics and the environment but does not name OH&S. Activity 7.70a specifies the exchange of information on *the entire range of environmental and health aspects of construction* and the *dissemination of databases on the adverse environmental effects of building materials.* Activity 7.70b urges the *development and dissemination of databases on the adverse environmental and health effects of building materials* so that activities 7.70a and 7.70b do go some way to addressing OH&S concerns in respect of the construction industry contribution to the development of human settlements.

The human settlements development strategy is, inter alia, predicated on an enabling approach under which external assistance will help to generate internal resources to improve living and working environments. Technology transfer and education are the engines for the human settlements program but nowhere in it is there a requirement for multinationals to employ the same occupational and environmental health standards abroad as they do at home, or for appropriate occupational and environmental health clauses to be written (and enforced) in respect of development aid and assistance given by UN agencies. Whereas at the national level the program advocates partnerships between private and community sectors with participation in decision-making by the disadvantaged groups, the means of empowerment of these groups is/are not specified.

ICOH Comment 13

Chapter 7 goes to the heart of sustainable development for today's hard to reach groups. There should be ongoing and penetrating review of strategy and sustainability targets for these groups. In these reviews OH&S standards should be mentioned as central to externally led technology transfer solutions to sustainable settlements problems. Education should be provided about standards and *Agenda 21* executives should look for ways to help governments find the will to maintain these standards.

Chapter 8: Integrating environment and development in decision making

This chapter outlines the strategies designed to transform sustainable development (its ethos and everyday government, business and household behaviour) from the saying to the doing. The chapter, of necessity, is couched in generic umbrella-type language in that while it does specify particular objectives and activities under each of its four programmes, it tends not to single out particular discipline areas (eg health and safety, air pollution etc) as exemplars.

The four programmes are:

> A. *integrating environment and development at the policy, planning and management levels;*
>
> B. *providing an effective legal and regulatory framework;*
>
> C. *making effective use of economic instruments and market and other incentives; and*
>
> D. *establishing systems for integrated environmental and economic accounting (8.1).*

The objective of Program A is the ongoing restructure of decision making to ensure *that socio economic and environmental issues* are integrated into it and that *public participation* is assured (8.3). Programme B specifies *the integration of environmental and development policies* into the *legal and regulatory* framework a framework that can call up and use both *command and control* and *market oriented* prescriptions (8.16). Programme D concerns bringing the environment out of the realm of market failure by addressing three fundamentals: (1) the incorporation of an environmental cost component (the environment is not a free good) into consumer and producer decisions making, (2) the integration of social and environmental costs into the market (full cost pricing of the environment) and (3) embracing the market itself as power for sustainable development through the invention and implementation of market led instruments and policy. Programme D has a specific objective: to expand national accounting procedures sufficiently to allow *the integration of environmental and social dimensions into the accounting framework* (8.42).

Notwithstanding the generic approach taken in this chapter, the need for risk assessment to become a normal feature of policy is mentioned at 8.5b of Programme A while clause (h) of that same paragraph advises *establishing procedures for involving local communities in contingency planning for environmental and industrial accidents and maintaining an open exchange of information on local hazards*. Risk assessment is also mentioned in passing at 8.21a of Programme B this time in respect of lawmaking.

ICOH Comment 14

Rio + 5 concluded that great progress had been made in establishing currency in use of the term sustainable development. Rio + 5 also noted that the real challenge was now

the doing of sustainable development. Whilst considerable progress has been made, much remains to be done. ICOH believes that this is still the case and urges the international community to find the will to proceed. Further, and not in any way wishing to diminish recognition of the considerable government and business success in strategy development and tools and techniques inventions, the ICOH puts the view that many of the tools and techniques are in their early stages of development. Holding this view, the ICOH urges that *Agenda 21* executives encourage the further research into, development, application and usage of market based tools and techniques like the following: full cost accounting, O&EH&S technology assessment, life cycle analysis, design for environment engineering, job safety analysis, "green" supply chain management, results based legislation, emissions trading, and purchasing strategy and the various "greening" schemes emerging in industry.

Chapter 9: Protection of the atmosphere

This chapter is the first of the "big picture" chapters and addresses the atmosphere under four programmes:

A. *addressing the uncertainties: improving the scientific basis for decision-making;*

B. *promoting sustainable development:*

   i. *energy development, efficiency and consumption;*

   ii. *transportation;*

   iii. *industrial development;*

   iv. *terrestrial and marine resource development and land use;*

C. *preventing stratospheric ozone depletion; and*

D. *transboundary atmospheric pollution (9.5).*

The health impact of deterioration of the atmosphere is called up as a basis for action in Programme A (9.6) and activity 9.8a advocates research into linkages between atmospheric change, sustainable development and health. Health is also cited as a basis for action in Programme Bi (9.9) which specifies the need for sustainable energy sources that reduce greenhouse emissions. Safety (and by implication health) is mentioned at 9.14 as an objective of programme Bii where the effect of vehicle emissions on the atmosphere is discussed. Activity 9.15c of this same programme advocates the exchange, collection and analysis of data about transport emissions and the environment. Programme C acknowledges the *adverse effects* (9.23b) of ozone depletion and activity 9.24c of this programme advocates *continuous assessment of scientific information and the health and environment effects … of stratospheric ozone depletion.* Programme D lists adverse human health effects before *other detrimental environmental effects* (9.25) in its basis for action clause and objective 9.27d advocates the development of *capabilities to asses and mitigate trans-boundary air pollution resulting from industrial and nuclear accidents, natural disasters and the deliberate and/or accidental destruction of natural resources.*

In its activities (9.28a and b) respectively, Programme D emphasises *addressing the extent, causes, health and socio-economic impacts of ultraviolet radiation* and the establishment and strengthening of early warning systems against that transboundary air pollution mentioned already and industrial accidents, natural disasters and the deliberate and/or accidental destruction of natural resources.

ICOH Comment 15

The work activity and industry of people ourselves is at once a source of wealth and progress and occupational and environmental health degradation. In the period between Rio + 5 and Rio + 10 environmental and occupational health degradation have continued and the poverty gap is said to have widened. Large-scale industrial accidents have continued to injure and kill workers and pollute the environment. *Agenda 21* institutions, UN agencies and signatory *Agenda 21* governments are urged to strengthen proven approaches to industrial and environmental accident prevention and to seek new technologies in pollution control.

In this respect, even though there is a swing towards market led solutions to O&EH&S pollution problems, market failure is a reality. Non market based projects may be needed to overcome this and, in the past, governments have shown themselves capable of cooperating in non market based solutions to global issues, the ozone depletion agreements being an example. The ICOH urges governments to cooperate and strengthen their commitment to the greenhouse problem and to consider whether or not there is a case, within the UN, for a public domain jointly funded combined and large-scale government approach to research in alternative energy and in particular solar energy, thermal energy and the hydrogen fuel cell.

Chapter 10: Integrated approach to the planning and management of land resources

This chapter is another big picture chapter and is so constituted as to not deal specifically with OH&S.

Chapter 11 Combating deforestation

This chapter does not directly address OH&S issues

Chapter 12: Managing fragile ecosystems: combating desertification and drought

This chapter does not directly address OH&S but does mention health generally when at 12.12a, in the context of desertification and drought, it calls for the updating of existing inventories about *other resources such as housing, employment, health, education, and demographic distribution in time and space*.

Chapter 13: Managing fragile ecosystems: sustainable mountain development

There are two programmes in this chapter:

    A. *Generating and strengthening knowledge about the ecology and sustainable development of mountain ecosystems;*

    B. *Promoting integrated watershed development and alternative livelihood opportunities (13.3).*

OH&S concerns are indirectly cited in both programmes. In the objectives of Programme A at 13.5f there is a call *to establish databases and information systems to facilitate an evaluation of environmental risks and natural disasters in mountain ecosystems.* Activity 13.7c of this same programme complements 13.5f and calls for the identification of *hazardous areas that are most vulnerable to erosion, floods, landslides, earthquakes, snow avalanches and other natural hazards.*

Poor health is cited in the basis for action in Programme B (13.13) and objective 13.15c of this programme calls for the development of *technical and institutional arrangements for affected countries to mitigate the effects of natural disasters through hazard prevention measures, risk zoning, early warning systems, evacuation plans and emergency supplies.* Activity 13.18b of Programme A advocates *cooperation and exchange of data among countries sharing the same mountain ranges and river basins, particularly those affected by mountain disasters and floods.* Activities 13.22 b and c of this programme respectively advocate providing human resource access, inter alia, to *health infrastructure* and the promotion of *local awareness and preparedness for disaster prevention and mitigation, combined with the latest available technology and early warning and forecasting*.

ICOH Comment 16

Accidents and natural disasters of the kind mentioned in this chapter continue to claim the lives of workers and non-workers alike in both rich and poor countries. Historical data and early warning/prediction technologies are well developed. Governments must find the will within and between themselves to act to employ these technologies and to enforce town-planning laws in respect to the settlement and/or recreational use of environmentally unstable areas.

Chapter 14: Promoting sustainable agriculture and rural development

Of the L programmes in this chapter Programme I (integrated pest management and control in agriculture) directly interfaces with general health and occupational health. The adverse effects of pesticide overuse on human health (14.74) is cited as one of the bases for action. All of the objectives relate directly or indirectly to OH&S.

Objective 14.75a specifies/d the year 2000 for the implementation of *mechanisms to control the distribution and use of pesticides.* Objectives 14.75 b and c respectively advocate *putting integrated pest management practices within the reach of farmers through farm networks, extension services and research institutions* and the establishment (to facilitate integrated pest control management) of operational an interactive networks among farmers, researchers and extension services by the year 1998.

Management related activities in this program advocate policies to ensure the safe and appropriate use of insecticides (14.76a), monitoring the incidence of pests and disease in agriculture and the distribution and use of pesticides (14.76b), R&D into target specific pesticides which quickly biodegrade into harmless substances (14.76c) and pesticide labelling that informs about safe handling, application and disposal (14.76d). Data and information related activities advocate harmonising, between countries, of information about *banned* or *severely restricted pesticides* (14.77a), consolidation, documentation and dissemination of information on *biological control agents and organic pesticides* (14.77b),

and surveys into pesticide use and its related human and environmental health effects and the provision of appropriate education. (14.77c). A regional cooperation and coordination activity reiterates the need for collection, analysis and dissemination of data on the human and environmental health effects of pesticide use (14.78a) and the implementation of integrated pest control management which employs cultural, biological and chemical control (14.78b and 14.78c). Implementation is to be through education and training in pesticide use and integrated pest management for farmers, researchers, policy makers, researchers, and NGO's 14.81a); training in crop health and non chemical agricultural pest control for extension workers, farmers and woman's groups (4.81b); and the transfer of integrated pest management technology together with the strengthening of regulatory bodies that control pesticide use (14.82).

Human health is mentioned in Programme J in relation to the safe disposal of organic and inorganic waste into the soil (14.86d). While Programme L mentions the health impacts of ozone depletion induced ultraviolet radiation on plants and animals it does not single out humans for special attention.

ICOH Comment 17

The ICOH acknowledges the progress that has been made through integrated pest control management regimes and urges the continuation of these programs. Opinions offered during the writing of this report held that widespread misuse of agricultural chemicals and pesticides continues in both rich and poor countries as does an illicit trade and/or use in banned and dangerous chemicals. Furthermore, as the StarLink corn experience shows, there is ample evidence for believing that safeguards presently in place for the conduct of experiments in genetically engineered insect resistant crop species failed on many levels. The ICOH urges that, in any review of *Agenda 21*, a high priority be given to pesticide management and that, as a matter of urgency, an international code of best experimentation practice in genetic crop engineering be developed and implemented. Technologies presently being developed to detect the illegal transport of dangerous substances by terrorists might, in the future, prove useful for detecting illegal trade in banned and dangerous chemicals.

Chapter *15: Conserving biological diversity*

This chapter focuses on the threat to human development posed by the loss of biological diversity. OH&S is not called up in the basis for action but health generally is mentioned as a potential beneficiary of advances in biotechnology.

Chapter 16: Environmentally sound management of biotechnology

A potential for improved health is said to be inherent in the sound management of biotechnology. Biotechnology is also advocated as having potential for the detoxification of hazardous wastes. There are five programme areas in this chapter:

    A. *increasing the availability of food, feed and renewable raw materials;*

    B. *improving human health;*

C. *enhancing protection of the environment;*

D. *enhancing safety and developing international mechanisms for cooperation;* and

E. *establishing enabling mechanisms for the development and the environmentally sound application of biotechnology (16.1),*

from which it can be seen that Programme B concerns human health and Programme D concerns safety. In addition health and or safety are mentioned in other programmes as follows.

In Programme A where health and/or safety is mentioned in the basis for action (16.2), at 16.3 in the objectives where safety is paramount and has umbrella status over each of the specified objectives (a) through (g) all of which invoke biotechnology to the service of such initiatives as pest control, crop yield and the like, in the activities at 16.5 f and j respectively in relation to safe exchange of germ plasm and the development of biological products, in activity 16.6c which calls for the establishment of data banks to monitor the environmental and health impacts of organisms, in activity 16.7a specifying, inter alia, cooperation in bio-safety and 16.7d which specifies the need for safety procedures, and under the means of implementation at 19.9 (creating awareness of the risks of biotechnology and safety procedures training).

In Programme C where health and/or safety is called up under objective 16.22 safety is designated as paramount in the application of biotechnology (through various processes) to prevent environmental degradation, and in objective 16.25d in relation to regional cooperation in the research development and transfer of biotechnology.

Programme E acknowledges safety assessment as a basis for action in establishing enabling mechanisms for the development of environmentally sound biotechnology (16.73). One objective to support this advocates the establishment or adaptation, at local, regional and national levels of mechanisms for safety appraisal and risk assessment (16.39c). Another activity (16.39iii) complements this objective and specifies raising the awareness of the relative benefits and risks of biotechnology. Activity 16.40b advocates promoting greater awareness of potential and relative risks and benefits of biotechnology amongst the public and key decision makers.

Programme B, in its basis for action, implicates work related causes in the deterioration of environmental quality notably air, water and soil pollution owing to toxic chemicals, hazardous wastes, radiation and other sources and the impact of these on human health (16.11). The main objective of the programme is to contribute, through the environmentally sound application of biotechnology, to an overall health programme (16.12). Safety is mentioned in objective 16.12d (a general endorsement of Programme D), under management related activities at 16.13 as paramount in specific general health activities (a) through (j), none of which directly address occupational health, at activities 16.14 a and b respectively in relation to biotechnology and reproductive health care and education about biotechnology risk, and at activity 16.15a which simply endorses Programme D. So what is in programme D?

Programme D highlights the vital importance of risk assessment and management of biotechnology and transparency of safety and boarder control procedures for biotechnology. The main objective is stated to be *to insure safety in biotechnology development, application, exchange and transfer through international agreements on principles to be applied on risk assessment and management, with particular reference to health and environmental considerations* (16.30). In the activities at 16.32, safety procedures are to be made widely available (16.32a), to be further developed in respect of

risk management and assessment (16.32b), and to be compiled into a framework of internationally agreed principles for safety in biotechnology (16.32c). There is to be international and regional cooperation to raise awareness of the benefits and risks of biotechnology (16.33) and international meetings are/were to be organised to identify further practical steps to facilitate international cooperation in bio-safety (16.34a). The feasibility of internationally agreed guidelines on safety in biotechnology (including risk assessment and management) is reiterated at 16.34d that also raises studying the feasibility of guidelines which could *facilitate national legislation on liability and compensation.*

ICOH Comment 18

Biotechnology experimentation, growth and development have expanded rapidly during the Rio – Rio+10 interim. Scientists sing biotechnology's great potential for improving the quality of life and also for heralding in great disaster. The spectacles of terrorism, and war as work, have demonstrated the great potential for evil inherent in the misuse of biotechnology. The ICOH urges an early *Agenda 21* review of Chapter 16. Such a review should address changes in biotechnology research, biotechnology research needs and practice, safeguards against occupational and environmental accident and acquisition and misuse by terrorist groups and rogue governments. Such a review should focus on improving and strengthening relevant existing working procedures and protocols and what steps might be taken to bringing forward working arrangements which, with implementation in mind, go beyond *considering the need for and feasibility of internationally agreed guidelines on safety in biotechnology releases, including risk assessment and risk management, and considering studying the feasibility of guidelines which could facilitate national legislation on liability and compensation* (16.34d). In the interim, *Agenda 21* and the UN agency executives are urged to promote amongst national governments the UN's *Biological Weapons Convention* and to urge all nations to ratify this convention and exercise their influence for good, through it.

Chapter 17: Protection of the oceans, all kinds of seas, including enclosed and semi enclosed seas, and coastal areas and the protection, rational use and development of their living resources

There are seven programmes in this chapter:

A. *integrated management and sustainable development of coastal areas, including exclusive economic zones;*

B. *marine environmental protection;*

C. *sustainable use and conservation of marine living resources of the high seas;*

D. *sustainable use and conservation of marine living resources under national jurisdiction;*

E. *addressing critical uncertainties for the management of the marine environment and climate change;*

F. *strengthening international, including regional, cooperation and coordination;* and

and their main focus is on maintenance of the health of the environment.

In a number of places occupational health issues surface because they are inherently part of the issue being discussed but no great emphasis is given to them. Marine accidents are mentioned in the basis for action of Programme B (17.20) but in relation to pollution rather than to worker mortality and morbidity. Activities 17.30a vii and viii respectively invoke better charting of the coast and stricter international regulations to prevent accidents at sea. Activity 17.30a xii advocates continued support for the development of an international regime for the transportation of hazardous and noxious substances. Activity 17.30c mentions safety in respect of offshore oil and gas platforms. Activity 17.100 of Programme E advocates improving forecasting of marine conditions for safety purposes. Activity 17.107 of Programme E recommends research and remedial action (for human health purposes) in respect of additional ultraviolet radiation.

ICOH Comment 19

The ICOH recommends that *Agenda 21* acknowledge piracy as a safety issue for workers at sea. The ICOH further recommends that national governments take action to insure they meet their O&EH&S responsibilities under the *United Nations Convention on the Law of the Sea* (UNCLOS) and that the executives of UNCLOS themselves take action to instigate a more regular and timely regimen of OH&S content meetings.

Chapter 18: Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources

There are six programmes in this chapter and all of them concern, inter alia, human health. The programmes are:

A. *integrated water resources development and management;*

B. *water resources assessment;*

C. *protection of water resources, water quality and aquatic ecosystems;*

D. *drinking-water supply and sanitation;*

E. *water and sustainable urban development;* and

F. *water for sustainable food production and rural development (18.5),*

but none of them directly addresses occupational safety and health. The chapter does, however touch on the impact of work activity in several places.

The means of implementation 18.16 of Programme A notes the need for *prevention and mitigation of water related hazards.* Programme C cites *inadequate controls on the discharge of industrial waste waters* (18.35) in its basis for action and its first objective (18.36) *involves evaluating the consequences which the various users of water have on the environment.* Objective 18.37 refers to contamination of aquifers and objective 18.38, inter alia, focuses on degradation and disease vectors in aquatic environments. Activity 18.40d v and vi respectively cite (a) the need for the safety and integrity of wells against biological pathogens and hazardous chemicals and (b) water quality monitoring to mitigate against

toxic and hazardous substances. Activity 19.40h iii advocates the development of national and international legal instruments to help protect water resources from *accidental and/or deliberate spills in national and/or transboundary water bodies.*

Programme D cites human health in its basis for action (18.47), in its objectives (18.48) and in its activities. Activity 18.50e requires the safe reuse of industrial waste waters and in its activities includes health and hygiene education and literacy (18.54).

Programme F lists human health and disaster mitigation policy (18.68c) amongst its objectives and activity 18.76d vii specifies educating communities about *pollution related impacts of the use of fertilisers and chemicals, and on water quality, food safety and human health.*

ICOH Comment 20

Industrial accidents continue to pollute water resources as recent examples in New Guinea and Hungary demonstrate. Pesticide and chemical pollution of water continues throughout the world in both rich and poor countries. Water distribution remains a very serious issue. Civil society groups working in the area claim that donations in the order of $US25 will provide a lifetime's supply of safe drinking water in some developing countries a claim which brings with it some optimism that the problem is solvable given governments have the will. Safe drinking water is a basic requirement of OH&S. Access to water for agricultural and industrial purposed is central to sustainable development. The ICOH urges *Agenda 21* to pursue with vigour its efforts to have the international community find the will to address the problem of safe drinking water and access to water for industrial and agricultural development. Areas of specific and urgent concern should be identified and recognised. And for these, and within specified time lines, clear targets should be defined and pursued with renewed will and enthusiasm, through the UN and its agencies.

Chapter 19: Environmentally sound management of toxic chemicals including prevention of illegal international traffic in toxic and dangerous products

Human health and safety concerns are a central feature of this chapter that also, less directly, addresses aspects of OH&S. There are six programmes:

   A. *expanding and accelerating international assessment of chemical risks;*

   B. *harmonization of classification and labelling of chemicals;*

   C. *information exchange on toxic chemicals and chemical risks;*

   D. *establishment of risk reduction programmes;*

   E. *strengthening of national capabilities and capacities for management of chemicals;* and

   F. *prevention of illegal international traffic in toxic and dangerous products (19.4).*

All of these programmes call up hazard assessment, risk assessment (including assessment of exposure) risk acceptability and risk management (19.5). At 19.8 the right of the community and workers to know the chemical risks facing them is modified by a caveat

about industry's right to protect confidential business information. Apparently people are to accept that there is, or is not, a risk from chemicals without necessarily being told the identity of those chemicals. However it is argued at (19.8) that *industry should apply adequate standards of operation in all countries in order not to damage human health and the environment* through *responsible care* and *product stewardship*. The illegal trafficking in *toxic and dangerous products and wastes* is also cited to justify concern (19.10).

The main basis for Programme A is assessing the risk to human health and the environmental hazards caused by chemicals (19.11). This is transformed into two main objectives: assessment of several hundred priority chemicals by 2000 (19.13) and production of guidelines for exposure to a greater number of toxic chemicals (19.13). A range of activities support these objectives: (1) promotion of risk assessment of chemicals within the UN agencies, government, industry, academia, and relevant NGO's and through international exchange of risk assessment reports (19.14), (2) generation of data for and fostering of hazard assessment of chemicals and involvement of the UN agencies, industry and government in this process (19.15), (3) provision by industry of data about manufactured substances of potential risk to health (19.16), and (4) international cooperation in prioritisation, exposure assessment and monitoring of chemicals (19.17).

Programme A lists amongst its means of implementation: accelerated risk assessment R&D in developed countries (19.18), working towards a common framework for risk assessment and prediction of the effects of chemicals on human health and the environment (19.20), research into safe alternatives to toxic chemicals, cause and effect relationships between chemicals and diseases, and the risk of chemicals to the environment (19.21), education and training projects involving women and children who are at greater risk (19.22) and support and development of risk assessment in developing countries 19.23).

Programme B, which deals with harmonisation and classification of labelling of chemicals, notes, in its basis for action, the existence of a UN Convention for handling and use, and the dissemination of safety data sheets but highlights the (then) absence of a globally harmonised hazard classification and labelling system (19.24 through 19.26). In light of this, its objective is stated as the availability, by 2000, *of a globally harmonised hazard classification and compatible labelling system, including safety data sheets and easily understandable symbols* (19.27). This objective should be met by international cooperation *amongst a number of Organisations and UN agencies* (19.28) and implemented by governments, institutions and NGO's, through education and training, and the better management of chemicals, both in respect of the new (and adopted) labelling system (19.30 through 19.32).

Human health is again the basis for action in Programme C which concerns information exchange on toxic chemicals and chemical risks. Health and safety at work is actually mentioned in respect of the exporting of chemicals banned in one country to other countries having no such ban. (19.33 through 19.35). Two objectives are stated at 19.38: (1) international promotion of information exchange about chemical safety, use and emissions and (2) to achieve by 2000, full participation in the then PIC (Prior Informed Consent - about the export of banned chemicals) procedure. Provision of data about health risks (19.40d), and technical information (19.39c) and alternatives to banned substances (1940d), in all United Nations official languages (19.41) are amongst the activities listed.

Human health is the central basis for action in Programme D - Establishment of risk reduction programmes, pollution prevention, substitution of the less harmful for the more harmful, standards setting for chemicals in air, water, food, and other consumer goods, clean products and production technology, emission inventories, product labelling, use limitations, economic incentives, safe handling and exposure regulations, and phase out and/or banning of chemicals are cited as tools (19.44). Chemical accidents, chemical

poisoning, rehabilitation of chemical damaged areas, and industrial accidents and disasters are also listed as bases for action (19.46) through 19.48). The objectives of this programme are to eliminate unacceptable and unreasonable risks where this is economically possible and to reduce risks posed by toxic chemicals (19.48). Activities specified include government action to adopt producer liability principles (19.49a), to undertake action to reduce risks for toxic chemicals (19.49b), to identify and adopt hazard switching/reducing strategies (19.49c), to adopt standards for chemicals in food (19.49d), to develop national strategy and regulations for preparedness, and response to accidents and for accident prevention (19.49e), to take action to establish poison control centres (19.49f), to reduce overuse of agricultural chemicals through alternative farming and integrated pest control management (19.49g), to require producers and importers and other toxic chemicals handlers to prepare on and off site emergency response plans (19.49h) and to investigate and implement the elimination of risks from storage of outdated chemicals (19.49I). In addition industry should develop, within UN and national government protocols, an international code for the management of international trade in chemicals (19.50a), develop the "responsible care" approach to chemicals management (19.50b), and whilst adopting community right to know programmes, share information on accident causation and toxic chemical emissions when host country guidelines do not exist (19.50c).

Governments are advised to exchange, regionally and nationally, information to reduce risks from toxic chemicals (19.51a), and to develop communication guidelines for such risks (19.51b). At 19.52, governments are requested, at regional and international levels to collaborate on chemical risk reduction, coordinate risk reduction activity, develop guidelines for disclosure, by manufacturers, importers and others, of chemical toxicity and emergency response to that toxicity, to encourage multinational industry to implement not less stringent chemical management abroad than is implemented at home, to develop risk reduction strategies for small to medium sized industries, to develop regulatory and non regulatory strategy to prevent the export of banned/severely restricted chemicals, to encourage uniform strategy for the evaluation of pesticides, to encourage safe production of dangerous materials including strategies for their replacement, and to implement national and regional strategies for the phase out and safe disposal of banned chemicals.

Promotion of technology to minimise release of, and exposure to, toxic chemicals, and review of pesticides previously accepted on the basis of now inferior criteria, are mentioned as means of implementation (19.54).

Programme E (strengthening the national capabilities and capacities for management of chemicals) lists lack of systems for dealing with chemical risks and of judging the impact of toxic chemicals (and the implications of these for human health) as its basis for action. The programme's one objective is the establishment by 2000, *of national systems for environmentally sound management of chemicals including legislation, and provisions for implementation and enforcement* (19.58).

Activities advocated at 19.59 include government action and/or regulation to (a) promote multidisciplinary approaches to chemical safety, (b) establish a national coordinating system for all parties involved in chemical safety, (c) develop institutional mechanisms (including enforcement) for the management of chemicals (d) establish networks of emergency response centres to include poison control centres, (e) develop national emergency response centres to prepare for and respond to accidents and (f) develop emergency response procedures in industry to reduce the impact of accidents.

Other activities advocated include the development of strategies for preparedness, prevention and response in respect of accidents and dissemination of information about chemical stockpiles (19.60a), development of databases of safety information for chemicals (19.60b), generation of data on field monitoring of toxic chemicals (19.60c), monitoring

and controlling the generation, transport, manufacturing, distribution and disposal of toxic substances (19.60d), development of guidelines and checklists for chemical safety (19.61a), supporting the strengthening of legislation in developing countries (19.61b), supporting community right to know and inviting the UNEP and OECD to develop guidance documents and programmes on accidents, toxic emissions inventories and risk communication (19.61c), supporting the development of risk assessment in developing countries, (19.61d), promoting the use of the UNEP/OECD international directory of emergency response centres (19.61e), promoting tools for the management of chemicals (19.61f), arranging educational courses for chemical safety workers (19.61g), developing mechanisms for the optimal sharing of international information about chemical safety 19.61h), and promotion by the UNEP, through the ILO, OECD and ECE, of the principles for accident prevention, preparedness and response (19.61i).

Programme F (prevention of illegal international traffic in toxic and dangerous products) refers to the potential for harm to human health inherent in the then absence of an international agreement on traffic in toxic and dangerous substances and to illegal trafficking in these substances.

Activities include the implementation by government of legislation to prevent the illegal import and export of toxic and dangerous products, and the establishment of enforcement programmes to monitor compliance and penalise violations (19.69 a and b) respectively, the establishment by governments of national alert systems to detect illegal trafficking in toxic and dangerous products (19.70), activities 19.71 through 19.74 invite, inter alia, greater regional cooperation and information sharing to defeat illegal trafficking.

Programme G (Enhancement of international cooperation relating to several of the program areas) called on the executive heads of WHO, ILO and UNEP to enhance the role of the International Programme on Chemical Safety (IPCS) and convene an intergovernmental forum on chemical risk assessment and management within one year which meeting would constitute the first meeting of that forum.

ICOH Comment 21

The ICOH applauds the full battery approach taken by *Agenda 21* to the toxic chemicals problem. Gathered opinion points to a mixed bag of success in respect of Chapter 19 concerns. There is reassuring evidence of both producer and consumer sovereignty selection of organic/chemical free produce. There is also reassuring evidence of improved chemicals management under integrated chemicals management and responsible care protocols with profitability savings driving better chemicals usage. Unfortunately there is also evidence of gross failure in industry conduct and performance in chemicals management, a continuation of trade in illegal substances and, in what is appearing to be a recurring theme, something of a failure on the part of government to maintain the will to enforce enacted legislation. In addition there has been a move towards the increasing use of chemical substances in terrorism and war and a renewed interest in research into chemical warfare products in "civil" and "uncivil" governments alike. The ICOH urges *Agenda 21* executives to call world leaders to conscience on the use and development of chemical weapons and to urge them to work through existing UN conventions to desist with such weapons in the work

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Chapter 20: Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes

There are programmes in this chapter:

    A. *promoting the prevention and minimization of hazardous waste;*
    B. *promoting and strengthening institutional capacities in hazardous waste management;*
    C. *promoting and strengthening international cooperation in the management of transboundary movements of hazardous wastes;* and
    D. *preventing illegal international traffic in hazardous wastes (20.8).*

Environmental health and public health are called up in the general introductory comments (20.1, 20.4, 20.5). Health and environment are called up in the overall objective (20.6). The overall targets section stress environmental health through its references to *cleaner production* (20.7a). This section calls up the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (20.7b*)*, the *Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa (20.7c) and the fourth Lom Convention (20.7d).*

In Programme A (promoting the prevention and minimization of hazardous waste), health is linked with environment in the *basis for action* section which also refers to the *employment and environment effects* associated with good management of hazardous wastes (20.9). None of the Activities of Programme A mention OH&S but activities 20.13 b and c mention environmentally sound management and disposal respectively. Item 20.13k notes the responsibility governments have to lay down regulations for industrial waste disposal. Activity 20.19d fixes responsibility on government for taking the lead in establishing procedures for safer *handling, storage, disposal and destruction* of hazardous wastes.

Programme B (Promoting and strengthening institutional capacities in hazardous waste management) at 20.20 alludes to the lack of information about exposure (especially for women and children) to exposure to environmental contamination and pollution. Why men are excluded is not divulged. Activity 20.20 comes as close to OH&S as Programme B gets when it advocates the development of technologies to *safely handle* hazardous wastes. Environmental health (either directly or obliquely) is called up in objectives 20.21a, b, e, g, h and i, and activities 20.22 a, c, d, f, and h, and 20.23 a, b and c. The means of implementation paragraph 20.27 calls up education and training in hazardous wastes for the general public, women, and labour and industrial management without once

mentioning occupational health and safety. Paragraph 20.28 advocates the dissemination of hazardous waste materials to schools, women's groups and the identification of populations at risk of exposure to hazardous wastes without again mentioning OH&S. The emphasis is on environmental health.

Programme C (Promoting and strengthening international cooperation in the management of transboundary movements of hazardous wastes) is generally preventive in approach and health is generally implicated as a basis for the good management of transboundary traffic in hazardous wastes. In its activities section Programme C also calls up the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, and the *Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa.* Throughout the *activities* and *means of implementation* sections of Programme C the emphasis is (where health is concerned) on environmental and or general health.

Programme D (Preventing illegal international traffic in hazardous wastes) names general and environmental health in its basis for action. OH&S is not mentioned. Its *objectives* are arraigned against illegal trafficking in hazardous wastes and the *activities* specified go to legislative and legal programmes together with cooperative surveillance and information exchange between governments to reinforce the objectives.

ICOH Comment 22

The decade to Rio + 10 saw the establishment of the *Basel Convention* which did much to define hazardous wastes. Some 150 nations are in various stages of the ratification of this convention and these governments are asked to take their Basel obligations seriously and to look for ways to strengthen the provisions, not weaken them. The *Basel Convention* does not catch radioactive wastes and wastes from ships these categories being caught under other conventions. Although the *Basel Convention* approaches hazardous wastes from the twin perspective of environment and human health it does not mention occupational health and safety. This makes it all the more important that the *Agenda 21* document recognise OH&S in any review of Chapter 20 text. *The Bamako Convention* also enshrines the twin perspective of environment and human health without emphasising the importance of occupational health. It does however catch radioactive materials but the convention is not in force. Those giving breath to the Bamako ideals were far sighted in that the procedures they instigated opted in favour of reliance on the emergence and employment of clean technology (a preventive strategy) rather than after the chimney and pipe tolerate and/or clean up and disposal (cure strategies) approaches such as emissions trading and the like. This difference is important. In the decade to Rio + 10 the UN clean production drive has made considerable headway and currency and clean production web databases have links to related OH&S issues. There is also disturbing press criticism that the EU has, and the US is foreshadowing, legislation that devalues the Basel provisions and which enshrine cure strategies rather than the newly emerging clean production preventive strategies. If such press criticism were revealed to be accurate, some would argue that it points to yet another example of the failure of government. If the legislative initiatives were deliberate some would say that they epitomise dishonesty in government. The approach taken in the *Keirdanran Global Environment Charter* is exemplary here and

advocates that Japanese firms operating overseas use technology which meets the standards required in those countries but that they use Japanese technology whenever such technology betters those standards. The ICOH advocates that the *Agenda 21* document be updated so that it mentions by name, and draws attention to, the various UN clean production databases and links.

The Lom/Lome IV convention {*Lom(e) IV*} had the year 2000 as its expiry date. Information about progress to *Lom V* is hard to find and it is generally understood that the transition is slowed by disharmony and dispute.

The ICOH reiterates here its comment made in respect of the NGO sector and its call for a between global summits forum for NGO's and civil society groups. Such a forum would provide the opportunity to bring government failure and business failure issues to the attention of the voting public.

Finally the escalating use by terrorists and rogue governments of hazardous materials brings another dimension to Chapter 20 and the Basel convention. In any review of *Agenda 21* there should be particular attention paid to the content of chapters 14, 15, 16, 19, 20, 22, 31, 34, 35, 36, 37, 38, and 39 in so far as the relevant parts of this content can be brought to the development of unified and synergistic policy and procedures to prevent access by terrorists to dangerous substances.

Chapter 21: Environmentally sound management of solid wastes and sewerage related issues

This chapter does not directly concern occupational safety and health. Its main concern is with environmental health, toxic wastes having been dealt with in Chapter 19.

Chapter 22 Safe and environmentally sound management of radioactive wastes

The one programme in this chapter (Promoting the safe and environmentally sound management of radioactive wastes) mentions health risks in its basis for action and notes the absence of managements systems (minimisation, transportation, storage and disposal) in some countries.

The objective of the programme is *to ensure that radioactive wastes are safely managed, transported, stored, and disposed of, with a view to protecting human health and the environment within an interactive and integrated approach to radioactive waste management and safety* (22.3).

Through activities 22.4 a to d, the programme asks that states, in cooperation with relevant international organizations, minimise and limit radioactive wastes, provide for their safe processing, conditioning, transportation and disposal, promulgate (through the IAEA) safe international radioactive waste safety standards, guidelines and codes for environmentally sound management and disposal, promote the transfer to developing countries of technologies for storage, transport and disposal of radioactive wastes including spent nuclear reactor fuel and also promote safe management of these wastes,

and promote planning and impact assessment in respect of sound management of radioactive wastes as well of emergency procedures.

Activity 22.5 (a and b) encourages regional and international cooperation of states within the *Code of Practice on the Transboundary Movements of Radioactive Wastes,* and the *London Dumping Convention.* Specific mention is made of banning the disposal of low level wastes at sea, the export of wastes to countries banning such import under the *Bamako Convention* and the fourth *Lom Convention*, and the disposal of high level, intermediate and low level radioactive wastes and spent radiation sources where there is a risk to people, the maritime environment and the legitimate uses of the sea (c through e).

Research into the health and environmental impact of radioactive waste disposal and of methods of treatment, processing and disposal of radioactive wastes are mentioned as means of implementation.

ICOH Comment 23

A consistent body of opinion has it that the world is awash with radioactive waste as a result of (a) illegal trade in such materials (b) illegal dumping and (c) the improper disposal of military equipment in some countries. The ICOH calls for the international community to bring renewed vigour to the search for methods and actions to properly control the use and disposal of radioactive waste. The ICOH urges the international community to establish protocols which allow the search for, removal, and disposal of illegally held radioactive materials. The ICOH urges the international community to continue with, and enhance, efforts to assist nations suffering economic hardship to dismantle and dispose of unwanted and deteriorating nuclear infrastructure in both civil and defence sectors. In particular, international nuclear energy agencies and their associated professional societies are urged to cooperate to help insure that the highest standards of occupational and environmental health are employed in their industry on a day-to-day basis. The ICOH urges *Agenda 21* executives to urge the UN and its agencies, and governments, to continue to work through UN disarmaments reductions treaties to contain nuclear weapons proliferation.

Chapter 23: Preamble

This chapter comments on the overall thrust of Section III. It highlights the need for individual, group and organisational participation in sustainable development and notes that all NGO organisations participating in the work of *Agenda 21* must be given equal access. It states that the Section III chapters of *Agenda 21 address the means for moving towards real social partnership in support of common efforts for sustainable development* (23.4). The emphasis is on facilitating participation by each of the groups treated in the Section III chapters.

Chapter 24: Global action for women towards sustainable and equitable development

No generic programme name is used in this chapter. However the basis for action statement calls up *safe and equal employment* as a goal (24.1). Objective 24.2f names health as important area needing participation by women. Activity 34.3e calls up programmes to strengthen preventative health care and statement 24.5 advocates/advocated a year 2000

target for strengthening the *Convention on the Elimination of all Forms of Discrimination Against Women.* Among other things, strengthening of this convention is designed to give *women control of pollution and toxicity in the home and workplace* (24.5). Statement 24.6 specifies, inter alia, *armed hostilities, toxic waste and the use of unsuitable agro-chemical products* as areas which affect the lives of women and which require urgent attention. Statement 24.8b advocates, inter alia, research into the impacts on women of cut backs in spending on health and at 24.8c the impact on women of *toxic chemicals* and *armed hostilities* is mentioned a second time.

ICOH Comment 24

The ICOH applauds the considerable advances made in the status of women over the past decade but cautions that much remains to be done. Industrial violence towards, and workplace bullying of women, should be specifically targeted and given a high priority in any review of *Agenda 21*. The OH&S issues should also be specifically named as an important component of women's health.

Chapter 25: Children and youth in sustainable development

This chapter acknowledges the right of children and youth to a secure and healthy future, environmental quality, improved standards of living and access to education and employment.

Its stated objectives (25.4 through 25.7) are to promote dialogue between the youth community and government, a 50% (by year 2000) gender balanced participation rate in secondary/vocational education programmes, reduction of youth employment levels, and youth participation in all United Nations processes. Objective 25.8, inter alia, argues for *the prevention of abuses against youth, particularly young women and girls*, and considers *providing all youth with legal protection.* The chapter is very general and does not mention child prostitution, child labour, slavery, homelessness and displacement or conscription of youth to armed conflict.

The activities for this chapter reflect the generality of the objectives and do not address OH&S needs of children. However activity 25.9 b called for the ratification of the *Convention on the Rights of the Child* and its implementation. It is noted that the United States of America and Somalia remain the only two countries not to ratify this convention. Again the year 2000 addition of optional protocols to this convention is noted. (The optional protocols are *Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict* and *Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography).* Article 32 of the Convention addresses OH&S responsibilities in respect of children. ILO Convention 182 (Convention 182 Worst Forms of Child Labour Convention) has been signed by 117 counties.

ICOH Comment 25

The ICOH supports the ongoing work of UN agencies and reiterates once again its view that the international community place a high priority on the eradication of child prostitution, and the conscription of children to sweatshops and armed conflict. The ICOH urges governments to ratify *Optional Protocols* and to act within them. In this regard the ICOH also advocates continued *Article 32* work in the development of guidelines to facilitate the progress of children and youths who actively seek and enjoy work and asks governments to adequately police any such guidelines they may implement or have implemented. The ICOH acknowledges those countries that have recently ratified ILO *Convention 182* and urges signatory governments to proceed quickly against those in breach of these conventions. The ICOH urges more governments to ratify *Convention 182* and implement its requirements. The ICOH acknowledges the substantial use of child labour in farming and draws attention to the ongoing need for vigilance in OH&S education for this hard to reach group.

Chapter 26: Recognising and strengthening the role of indigenous people and their communities

This chapter makes no specific mention of OH&S issues in respect of indigenous peoples. It cites the ILO's *Indigenous and Tribal People's Convention* but this convention emphasises primary health care rather than OH&S. Article 7 of the convention cites *the improvement of the conditions of life and work and levels of health and education* of indigenous peoples as an important issue.

ICOH Comment 26

The integration of indigenous peoples into the workforce remains, on most accounts, a troublesome area. Also there is ongoing concern about the impact of foreign work practice on the culture and habitat of indigenous peoples. Indigenous peoples who share in the royalties as a result of arrangements made to allow commercial and industrial access to their lands, but who are not properly included in the introduced work arrangements, nor given timely and full benefit of education for the management of change, continue to be afflicted by alienation and higher than average levels of alcoholism and violence. The ICOH urges governments to work closely and sincerely with indigenous people to search for better ways to protect the work and habitat interests of these peoples.

Chapter 27: Strengthening the role of non-governmental organisations: partners for sustainable development

This chapter is a generic approach to strengthening the role and effectiveness of Non Governmental Organisations and their participation in the democratic process. It makes no specific references to OH&S. Indirectly it fosters OH&S because it facilitates the work of ICOH and the network of complementary national organizations in communication with governments.

Chapter 28: Local authorities initiatives in support of Agenda 21

This chapter, also generic in approach, is concerned with augmenting the contribution of local government to sustainable development. It does not directly address OH&S.

Chapter 29: Strengthening the role of workers and their trade unions.

The basis of action for this program acknowledges the role of trade unions in *addressing industrial change* and *the high priority they give to protection of the working environment and the related natural environment and their promotion of socially responsible and economic development* (29.1).

The objectives of the programme, inter alia, advocate support *of ILO conventions* (29.3a), *establishment of bipartite and tripartite mechanisms on safety, health and sustainable development* (29.3b*), the reduction of industrial accidents, injuries and diseases* (29.3d), *and increasing the provision of worker's education, training and retraining, particularly in the area of OH&S and environment* (29.3e).

Activities in this program invite governments to ratify and implement ILO conventions concerning the rights of workers to organise (39.4a), and to establish (in the workplace and at community and national levels) collaborative employer/worker and employer/worker/government mechanisms to deal with safety, health and environment with special reference to the status of women in the workplace (29.7). Governments and employers are to provide workers with sufficient and relevant information for participation in decision-making (29.8). Trade unions should define, develop and promote policy on sustainable development (29.9) and should with employers establish a framework for environmental policy, improvement of the working environment and performance of environmental enterprise (29.10). Trade unions are required to promote worker participation in environmental workplace audits and environmental impact assessments (29.11a). At 29.12 it is stated that workers should be trained adequately in environmental awareness and safety and health.

OH&S is not mentioned in the programme's means of implementation section

executives to the ILO safe work programme. The ICOH requests *Agenda 21* executives to name and promote the relevant ILO OH&S conventions in the *Agenda 21* document. Governments are asked to be particularly vigilant in respect of any diminution and weakening of these conventions that might result from globalisation. Governments are reminded of their obligation under Article 22 of the *Constitution of the International Labour Organisation* to report the measures they have *taken to give effect to the provisions of Conventions to which* they are *a party*. The ICOH acknowledges that only 37 countries have ratified *ILO C155 Occupational Safety and Health Convention* and notes in general the low ratification rates of relevant ILO conventions, for example, ILO Conventions 32, 53, 62, 67, 78, 174, 176, 184 and others. The ILO and its agencies and governments are encouraged to work together to achieve a better ratification rate of these and other relevant OH&S conventions.

A perusal of ratification rates of ILO conventions relative to OH&S reveals something of the core dilemma of sustainable development namely, the poverty gap. Some of the countries having less enviable OH&S conditions are among those who have ratified the conventions while some countries having more enviable OH&S conditions are among those who have not ratified. There is inequality of access to a safe working life and the poverty gap remains. There can be no pretending about the amount of work that needs to be done on the part of the international community if sustainable development is to become a reality. There can be no failing of will on the part of governments and the international community if sustainable development is to become a reality.

Chapter 30: Strengthening the role of business and industry

The introduction to this chapter notes the contribution of business and industry to social and economic development. It recognises that the power of the market mechanism is being harnessed to environmental stewardship and that *environmental management is among the highest corporate priorities and* is *a key determinate to sustainable development* (30.3). It cites responsible care and self-regulation (hinting at beyond compliance) as good corporate behaviour and places a high final cause emphasis on environment and human health.

There are two programmes in this chapter:

> A. *Promoting cleaner production* (30.5), and
> B. *Promoting responsible entrepreneurship (30.17).*

Both programmes call up health in their bases for action.

In the bases for action, Programme A predicates the need for good environmental management, and clean and efficient production technology, on environmental and human health. The emphasis is on ecologically sustainable industrial development. The objective of this programme does not go directly to OH&S. Rather it requires governments, business and industry to increase the efficiency of resource allocation, to attend to reuse and recycling and to reduce waste discharge per unit of output. OH&S must remain implied in this but is called up indirectly in activity 30.10b.

Activity 30.10b requires that industries adopt codes such as the International Chamber of Commerce's *Business Charter for Sustainable Development*, and the chemical industry's *Responsible Care* approach. Activities 30.11 through 30.15 discuss technology, corporate policy, cooperation with trade unions, corporate environmental management, and education and training and the roles and potential inherent in these for clean production and sustainable development. Activity 30.16 advocates the strengthening of databases such as the *International Cleaner Production Clearing House (ICPIC)*, the *UNIDO Industrial and Technological Information Bank (INTIB)* and the *ICC International Environment Bureau (IEB)*.

ICOH Comment 29

The ICOH supports the *Responsible Care* approach, notes that it is voluntary and draws the attention of CEO's to its provisions for O&EH&S. It is noted that the *Business Charter for Sustainable Development* appears to give more emphasis to environmental health and safety than it does to occupational health and safety which is not mentioned by name. Likewise the ICPIC, INTIB and the IEB emphasise environmental health. *Agenda 21* executives should also call up codes which give equal emphasis to the importance of OH&S. Ratification rates of some UNEP documents are relatively low.

The basis for action of Programme B (promoting responsible entrepreneurship) cites the potential inherent in entrepreneurship for the major role it can play in improving *the efficiency of resource use, reducing risks and hazards, minimising wastes and safeguarding environmental qualities* (30.17). Again OH&S remains implied in all of this.

The objectives specify encouraging entrepreneurs to address environmental stewardship (30.18a) and the channelling of entrepreneurship towards enterprises committed to implementing sustainable development policy.

The majority of the activities for this programme (30.19 through 30.25 and 30.27 through 30.29) work through general drivers such as venture capital markets, government fostering of sustainable enterprises, education and training in corporate environmental management, international standards for corporate environmental management behaviour, technology and know how exchange partnerships between large and medium business, establishment of national councils for sustainable development, and research and development strategy, financial aid financing of sustainable development entrepreneurship, a United Nations focus on sustainable development in its investment methodology and documentation, and support for R&D into sustainable development methodology for small and medium sized firms in developing countries. Activity 30.26 requires *that business and industry should ensure responsible and ethical management of products and processes from the point of view of health, safety and environment.* This is to be done through self-regulation and the integration of standards and codes into planning and decision-making and through open dialogue with employees and the public.

No means of implementation are specified as these are said to be included in other programmes.

ICOH Comment 30

The ICOH welcomes the arrival of the age of *third wave* environmentalism, the emergence of the environmental business sector, and the potential inherent in this for genuine tripartite cooperation. The ICOH recognises the *beyond compliance* progress of some firms and urges those firms to act in the *beyond compliance* mode when they do business in countries other than their home country. The ICOH also recognises that within the business capture of the health, safety and environment agenda there is a wide range of performance: there is insincerity, false advertising, misuse of labels and brand certification, false statement and misleading brand names. The ICOH urges governments to bring down heavy penalties against businesses that wilfully and knowingly cheat and also to make government purchasing from such firms contingent upon rectification of dishonest behaviour. The ICOH urges auditing of the various O&EH&S labelling certification processes. The ICOH urges an expansion in purchasing education courses.

Chapter 31: Scientific and Technological Community

This chapter has two programmes:

  A. *improving communication and cooperation among the scientific and technological community, decision makers and the public* (31.2), and

  B. *promoting codes of practice and guidelines related to science and technology (31.7).*

The programmes take a very broad approach to the scientific and technological community and to how this community can make a more open and effective contribution to decision making in environment and development processes. The chapter does not go to specific discipline areas of operation and is concerned with big picture issues (maintaining environmental life support systems) but its programmes would indirectly benefit OH&S through the umbrella effect of their activities. These activities go to a comprehensive range of communication issues such as scientific input into the decision making process, public opinion input into the scientific process, international cooperation and communication, intergovernmental communication and dissemination of research results, dissemination of codes of practice, establishment of national advisory groups on environmental ethics, education and training and review and legal instruments.

ICOH Comment 31

The ICOH applauds *Agenda 21* and UN agencies for their continued work in, and support of, the open society. The ICOH reiterates its opinion that the UN should enhance its NGO section and instruct that section to work more closely with NGO's and other civil society groups towards better achievement of the goals of both Chapter 31 programmes. The ICOH requests that more resources be given to the continued development and revision of UN and UN agency web based scientific databases and that a search be made for ways

Chapter 32: Strengthening the role of farmers

This chapter gives no name to its one programme. The programme concerns the nature of farming and its relationship to sustainability. Its focus is on security issues (for example village organization, legal status of women, self sufficiency and the like) the OH&S issues of farming being caught elsewhere in *Agenda 21*.

Chapter 33: Financial resources and mechanisms

This chapter deals with financial arrangements for *Agenda 21* and is not a chapter which specifically addresses OH&S.

Chapter 34: Transfer of environmentally sound technology, cooperation and capacity building

Although it is clear from the basis for action of this chapter that its concern lies with environmental health rather than occupational health, there is a call for the consideration of human resource development where technology transfer is concerned. The OH&S implications of imported technology are often at the heart of industrial morbidity and mortality but no mention is made of OH&S in any of the bases for action or activities of this chapter.

The activities are couched in such generic terms that they can apply to all aspects of technology transfer, cooperation and capacity building but intended linkages to OH&S are difficult to find, if not absent. Activity 34.26 comes closest and calls for technology assessment (including environmental impact and risk assessment) on the basis of environmental or health grounds.

ICOH Comment 33

The ICOH reiterates its earlier claim that O&EH&S impact assessment should be an integral part of new technology R&D. Management of technological change education should stress the O&EH&S implications of technological innovation. Governments are urged to continue to ensure that operating instructions supplied with technology specify best O&EH&S procedures.

Chapter: 35 Science for sustainable development

This chapter is intended to be *over-arching, in order to support the scientific requirements identified in the other Agenda 21 chapters* (35.1). It also addresses the big and general issues in environmental health (climatic change, demographics, environmental degradation and the like) and is not a chapter that goes to discussion of specific scientific disciplines. There are references to health in activity 35.7d (*develop, apply and institute tools in respect of quality of life indicators covering ... health, education*), activity 35.7e (*collect analyse and integrate data on the state of ecosystems and health* in order to be able to better understand development strategies and policies particularly in developing countries), and activity 35.17 (in respect of major developmental and environmental issues: *coordinate existing data and statistics gathering systems ... to support long term scientific assessments* of ... *health impacts*).

ICOH Comment 34

The ICOH supports the promotion of good environmental and general health practice in sustainable development as final causes of the scientific process. The ICOH also argues that good OH&S practice should have equal final cause rating with environmental and general health and that governments and professional societies take care to ensure that good OH&S is not crowded out in the recognition process. *Agenda 21* executives are encouraged to foster educational courses in Science Technology and Society in secondary schools and NGO's are encouraged to open up science ethics and society streams in their professional conferences.

Chapter 36: Promoting education, public awareness and training

The three programmes of this chapter are:

    A. *reorienting education towards sustainable development;*
    B. *increasing public awareness;* and,
    C. *promoting training (36.2).*

However this chapter, like its predecessor, takes a general approach. It notes that *education and the raising of public awareness are linked to virtually all areas in Agenda 21* and in consequence, sets out *broad proposals* leaving *specific suggestions related to sectoral issues* to be covered in other chapters (36.1). As a result OH&S is not specifically mentioned in any of the bases for action of the three programmes in this chapter.

Health is mentioned in activities. Activity 36.5i requires that every school should involve students in *local and regional studies in environmental health*. Activity 36.22 requires that training programmes should *evaluate the impact of development on productivity, health, safety and employment*.

The prescriptions for education are full and rigorous and there is evidence that there has been considerable progress made in raising the profile of sustainable development through education, training and public awareness.

ICOH Comment 35

The ICOH acknowledges the substantial progress made in education, training and public awareness for sustainable development. The ICOH asks that in any review of *Agenda 21*, OH&S be given equal status with EH&S in education for sustainable development. The ICOH highlights two concerns: (1) that the progress towards education and training, although considerable, is uneven within and between countries and (2) that individuals and organizations fully benefiting form education and training sometimes remain unable to consolidate those benefits. This is due to barriers and impediments (often found in social and cultural taboo, gender divide, age and generation gap, and sometimes in hierarchical and authoritarian regimes of government and business administration) which block empowerment. Youth, women and lower hierarchy members can be robbed of empowerment by these barriers.

With this concern in mind, the ICOH recommends that the UN agencies investigate the feasibility of providing education for senior executives, members of parliament and senior public servants in the management and promotion of change, empowerment technique, natural right and civil and safe society. The ICOH calls national leaders to conscience on these issues. The ICOH notes with alarm the relative demise over the decade to 2002 of public funding of courses in arts and letters, philosophy, politics, government and civil society, peace, disarmament and negotiation studies, and language and cultural studies. An opinion is held that these studies, both in themselves and through the essential tension generated between them and more technical and "objective" disciplines, can be crucial in sparking those new conceptual and values breakthroughs in social and cultural development thinking of the kind called for in the *Brundtland Report* itself (pp. 39,71).

The ICOH reiterates its call for international education in safe and civil society and social and responsible business and for open society promotion of duty of care and due diligence in O&EH&S. The ICOH recognises the moral relativity of the post-modern age in which we live, and constructivism in education as one manifestation of this age. Notwithstanding the liberating benefits that such developments can bring, the ICOH recognises a need for society to guard against the erosion of will that can also accompany such developments, especially when such erosion of will is combined with a devaluation of the hard science which underlies many of the codes and standards vital to the success of sustainable development. Hard science, like the humanitarian disciplines mentioned earlier, has a most vital role to play in sustainable development and there should be a balance between it and the social sciences and a search for synergy.

ICOH Comment 35 (Con't)

In respect of education and training specific to OH&S: the WHO and ILO have emphasized the need for quality occupational health services including education. Yet it remains difficult to implement the services due to limited resources in developing countries, a lack of understanding and/or interest of the part of responsible parties. A further problem arises when individuals in a developing country are forced to travel overseas to seek education. Often they may not return and their skills are lost to their community, further hindering development of occupational health services. Ultimately this loss negatively impacts economic development and growth. Recognizing the need for occupational health services is vital for maintaining a quality workforce. Critical to this is the ability to educate occupational health professionals. If emphasis is placed on education within the community, individuals trained in occupational health and safety will have the skills necessary to promote occupational health and development and there is less likelihood they will be lost to the community.

The UN and its agencies have been quick to harness the growth of the Internet, and telecommunications, to the task of making quality education materials available for uptake in diverse locations. The ICOH, through its scientific committees, has the resources to assist in the development of these programs. The use of distant educational sites has the potential to make it economically possible to educate a great number of specialists in occupational health and safety in developing countries. The ICOH encourages the WHO and ILO to continue developing this means of education and, in particular, to look for ways to ensure that infrastructure and hardware networks are available for this purpose.

Chapter 37: National mechanisms and international cooperation for capacity building in developing countries

This chapter, by the very nature of its treatment of its subject matter (capacity building: enhancing the ability of the country's human, scientific, technological, organisational, institutional and resource capabilities to address options inherent in sustainable development.) does not specifically deal with OH&S. The activities specified for capacity building would, in applying to the socio economic environment in general, have spin-offs for many areas of operation.

Chapter 38: International institutional arrangements

This chapter concerns, inter alia, the implementation of changes to UN systems to allow them to better proceed with the implementation of *Agenda 21*. It is not directly relevant to OH&S.

ICOH Comment 36

The ICOH recognises the Rio + 10 "review" process as part of the process of ongoing *reform and revitalization of the United Nations system* (38.2) and urges national governments to cooperate fully with *all relevant agencies, organizations and programmes of the United Nations system* charged with promoting *concrete programmes for the implementation of Agenda 21 and also* with providing *policy guidance for United Nations activities or advice to Governments, upon request, within their areas of competence* (38.7b). The ICOH welcomes the opportunity to be a part of this process and reiterates its call that a higher profile be given to the role of OH&S in sustainable development. The ICOH urges the ILO to address the relatively poor ratification rates of its OH&S relevant conventions and, through these conventions, to work more closely with *Agenda 21* executives to find better ways to help insure a good working life for all. The ICOH invites *Agenda 21* and ILO executives to make better use of its long standing NGO status in OH&S and to commission through it, first international conferences on the O&EH&S of peace keepers and international aid workers, and maritime and sea-going workers. Finally the ICOH urges *Agenda 21* executives not to let the importance of its sustainable development work be crowded out by the need to also combat ongoing and resurgent terrorism, ethnic cleansing and historical and religious hostility.

Chapter 39: International legal instruments and mechanisms

This chapter refers to the efficacy of international law in respect of sustainable development. Its focus is on law and legal frameworks in sustainable development, and it is generic in approach. OH&S are not specifically relevant to the purpose of this chapter.

Chapter 40: Information for decision-making

This chapter focuses on strategies generic to the provision of information for decision making in sustainable development. It examines, inter alia, such issues as data collection, storage and management, inter-country gaps in quality, coherence, standardisation, and accessibility. It does not mention occupational health although Objective 40.5c, in respect of improving data collection and use, requires that special attention be paid to such areas as *poverty, health and the rights of access to resources*.

ICOH Comment 37

There has been an explosion of information in the decade to Rio + 10 and increased access to this information has benefited many. However there is a severe inequality of access, such inequality being caused by, and continuing to cause, poverty itself. Ways must be found to make the substantial and freely available OH&S web resources more accessible to the world's poor.

4.0 CONCLUSION

The ICOH repeats its congratulations to the CSD and the WSSD series organisers for their ongoing work in sustainable development and will continue to support this process through the work of its scientific committees and the resources it has available. The CSD is urged not to allow the ever-present obscenities of war and terrorism to crowd out its ongoing work nor erode its confidence and determination.

Some general states are believed to be working against progress: the ICOH holds an opinion that to varying extents, failure of leadership will, and failure of government, are implicated as barriers to sustainable development reform. And so too, is the moral relativism inherent in postmodernism. Furthermore this is compounded by no small amount of public and private domain apathy, and by the powerlessness expressed by many who acknowledge the enormity of the sustainable development problem and thereby number among the less tragic of its many victims. The rapid progress and change rate in science and technology in the era from Rio to Rio + 10 has been such that urgent review of parts of *Agenda 21* is required.

These general issues are addressed in this Report and its Executive Summary. But they are by no means the only issues confronted. The Report and Executive Summary also address many specific issues important for *Agenda 21* and all 10 major groups named in the Rio + 10 process. The ICOH trusts that this report will find its way into the work of its many scientific committees and that it will also be of use more generally in the sustainable development process. There is no copyright restriction on this material which may be reproduced in whole or in part simply by acknowledging the ICOH.

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