Appendix XII-B.

WORKSHEET TO ANALYZE EFFICACY OF POTENTIAL HRD STRATEGIES

Instructions:

- For each strategy, please indicate the impact the solution may have on the priority problem.
- Leave blank issues which you are not familiar with.
- Impact is measured as follows:
  3 = strong
  2 = average
  1 = slight
<table>
<thead>
<tr>
<th>TOPIC/STRATEGY</th>
<th>PRIORITY PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and training</td>
<td></td>
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<tr>
<td>1. Define and distinguish occupational and environmental health.</td>
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</tr>
<tr>
<td>2. Perform educational needs assessment: a.on education, training and research needs; b.on the current reality of the country; c.at the local, regional and national level (and based on environmental and occupational health problems; prospectively)</td>
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<tr>
<td>3. Organize meetings among experts from different disciplines from around the country to achieve consensus on educational needs.</td>
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<td>4. Define professional profiles: select appropriate content areas and teaching methods.</td>
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<tr>
<td>5. Implement a programme, with short, medium and long-term components, oriented toward recruitment, education and training of human resources which will be capable of providing leadership in environmental/occupational health areas.</td>
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<tr>
<td>6. Fortify existing academic programmes with basic principles of environmental/occupational health.</td>
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<tr>
<td>Job market</td>
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<tr>
<td>1. Teaching should be linked to priority environmental/occupational health problems addressed by agencies</td>
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<tr>
<td>2. Develop disciplines on certain norms.</td>
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<td>3. Provide incentives for the job market for which the human resources are being produced.</td>
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<tr>
<td>4. Conduct prospective studies on the job market to assess personnel demands.</td>
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<tr>
<td>5. Provide qualified staff, based on demand.</td>
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<tr>
<td>6. Increase coordination between the employer and the university in: defining job descriptions and providing opportunities for employers to participate as teachers in academic programmes.</td>
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<tr>
<td>TOPIC/STRATEGY</td>
<td>PRIORITY PROBLEMS</td>
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<td>---------------------------------------------------</td>
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<tr>
<td>Quality of the teaching-learning process</td>
<td>1  2  3  4  5  6  7  8  9  11</td>
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<tr>
<td>1. Conduct a systematic and integrated approach.</td>
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<td>2. Link teaching to practice and research.</td>
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<tr>
<td>3. Allocate sufficient resources.</td>
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<tr>
<td>4. Establish teacher training programme.</td>
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<td>5. Optimize national resources.</td>
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<tr>
<td>6. Develop a system based on &quot;polluter pays&quot; to</td>
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<tr>
<td>support extension and local health.</td>
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<tr>
<td>1. Increase the efficiency in the use of budgetary resources through rationalization of the structure of education, training and research.</td>
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<tr>
<td>2. Increase the efficiency in the use of international resources (e.g., through interinstitutional coordination of research).</td>
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<tr>
<td>3. Provide economic incentives, e.g., tax cuts and credit extensions to employers who support investment in HRD programmes in education, training and research.</td>
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<tr>
<td>4. Self-financing.</td>
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<tr>
<td>5. Provide information on internal funding sources.</td>
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<tr>
<td>6. Develop a system based on &quot;polluter pays&quot; to support extension and local health.</td>
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<tr>
<td>TOPIC/STRATEGY</td>
<td>PRIORITY PROBLEMS</td>
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<tr>
<td>8. Encourage Mexican agencies which support science and technology</td>
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<td>(e.g., Conacyt, Funsalud, etc.) to develop special funds for education and</td>
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<td>training in environmental and occupational health.</td>
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<td>L-3.</td>
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<tr>
<td>1. Investigate the legislative framework and areas where laws are absent,</td>
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<td>inconsistent and duplicative.</td>
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<td>2. Improve the legislative framework based on the above investigation</td>
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<tr>
<td>3. Establish norms (institutional and legislative framework).</td>
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<td>4. Fortify the process of accreditation and certification for professional and</td>
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<td>technical personnel.</td>
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<tr>
<td><strong>Interinstitutional coordination</strong></td>
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<tr>
<td>1. Identify existing competency-based standards within the regulatory</td>
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<td>framework of each institution.</td>
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<tr>
<td>2. Identify areas where standards are absent or inconsistent.</td>
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<td>3. Establish a committee to evaluate the existing system (administrative</td>
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<td>structure educational programmes, interagency agreements and information</td>
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<td>systems) and propose improvements.</td>
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<td>4. Establish a national committee to oversee HRD in environmental and</td>
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<td>occupational health.</td>
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<td>5. Establish linkages between different training programmes (e.g., national</td>
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<td>system for HRD in agriculture)</td>
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<tr>
<td>TOPIC/STRATEGY</td>
<td>PRIORITY PROBLEMS</td>
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<tr>
<td><strong>International cooperation</strong></td>
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<tr>
<td>1. Establish programmes of international technical cooperation based on development activities in Mexico and other countries.</td>
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<tr>
<td>2. Encourage international organizations to coordinate their activities through the national committee on HRD.</td>
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<tr>
<td><strong>Planning/Programming</strong></td>
<td></td>
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<tr>
<td>1. Establish an intersectoral committee to design and implement regional programmes.</td>
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<tr>
<td>2. Establish norms and standards to guide regional groups in programme development.</td>
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<tr>
<td>3. Develop the national programme based on the regional programmes.</td>
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<tr>
<td>4. Promote interinstitutional agreements for HRD in environmental and occupational health.</td>
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<tr>
<td>5. Develop exercises on planning and programming at the grassroots level (COPLADE).</td>
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<tr>
<td>6. Develop a strategy for communication and participation.</td>
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</table>
Appendix XIII-A.

PRIORITIZED STRATEGIES BASED ON FEASIBILITY OF IMPLEMENTATION - MEXICO
(based on analysis of completed work sheets)

Education and training
1. Fortify existing academic programmes with basic principles of environmental/occupational health.
2. Organize meetings among experts from different disciplines from around the country to achieve consensus on educational needs.
3. Define professional profiles; select appropriate content areas and teaching methods.
4. Define and distinguish occupational and environmental health.
5. Perform educational needs assessment: a. on education, training and research needs; b. on the current reality of the country; c. at the local, regional and national level (and based on environmental and occupational health problems; prospectively.
6. Implement a programme, with short, medium and long-term components, oriented toward recruitment, education and training of human resources which will be capable of providing leadership in environmental/occupational health areas.

Job market
1. Conduct prospective studies on the job market to assess personnel demands.
2. Teaching should be linked to priority environmental/occupational health problems addressed by agencies.
3. Increase coordination between the employer and the university in: defining job descriptions and providing opportunities for employers to participate as teachers in academic programmes.
4. Develop disciplines based on certain norms.
5. Provide incentives for the job market for which the human resources are being produced.
6. Provide qualified staff, based on demand

Quality of the teaching-learning process
1. Optimize national resources.
2. Establish teacher training programme.
3. Link teaching to practice and research.
4. Fortify and expand accreditation programmes.
5. Conduct a systematic and integrated evaluation of the teaching-learning process and its impact.

6. Allocate sufficient resources.

**Financing**

1. Provide information on internal funding sources.
2. Involve the community
4. Increase the efficiency in the use of international resources (e.g., through interinstitutional coordination of research).
5. Encourage Mexican agencies which support science and technology (e.g., Conacyt, Funsalud, etc.) to develop special funds for education and training in environmental and occupational health.
6. Increase the efficiency in the use of budgetary resources through rationalization of the structures of education, training and research.
7. Provide economic incentives, e.g., tax cuts and credit extensions to employers who support investment in HRD programmes in education, training and research,
6. Develop system based on “polluter pays” to finance IHRD in environmental and occupational health.

**Legislation**

1. Establish norms (institutional and legislative framework).
2. Fortify the process of accreditation and certification for professional and technical personnel.
3. Investigate the legislative framework and identify areas where laws are absent, inconsistent and duplicative. Improve the legislative framework based on this investigation.

**Interinstitutional coordination**

1. Establish a committee to evaluate the existing system (administrative structure, educational programmes, interagency agreements and information systems) and propose improvements.
2. Identify existing competency-based standards within the regulatory framework of each institution.
3. Identify areas where standards are absent or inconsistent.
4. Establish linkages between different training programmes (e.g., national system for HRD in agriculture)
5. Establish a national committee to oversee HRD in environmental and occupational health.

**International cooperation**

1. Establish programmes of international technical cooperation based on development activities in Mexico and other countries.
2. Encourage international organizations to coordinate their activities through the national committee on HRD.
Planning/Programming

1. Develop a strategy for communication and participation
2. Establish an intersectoral committee to design and implement regional programmes
3. Establish norms and standards to guide regional groups in programme development.
4. Develop exercises on planning and programming at the grassroots level (COPLADE).
5. Develop the national programme based on the regional programmes.
6. Form a centralized intersectoral group to define objectives and develop regional programmes
Appendix XIII-B.

PRIORITIZED STRATEGIES BASED ON FEASIBILITY
OF IMPLEMENTATION - MEXICO
(based on analysis of completed worksheets)

Education and training
1. Perform educational needs assessment: a. on education, training and research needs; b. on the current reality of the country; c. at the local, regional and national level (and based on environmental and occupational health problems; prospectively,
2. Implement a programme, with short, medium and long-term components, oriented toward recruitment, education and training of human resources which will be capable of providing leadership in environmental/occupational health areas.
3. Organize meetings among experts from different disciplines from around the country to achieve consensus on educational needs,
4. Strengthen existing academic programmes with basic principles of environmental/occupational health.
5. Define professional profiles; select appropriate content areas and teaching methods.
6. Define and distinguish occupational and environmental health.

Job market
1. Increase coordination between the employer and the university in: defining job descriptions and providing opportunities for employers to participate as teachers in academic programmes.
2. Teaching should be linked to priority environmental/occupational health problems addressed by agencies.
3. Provide incentives for the job market for which the human resources are being produced.
4. Develop disciplines based on certain norms.
5. Conduct prospective studies on the job market to assess personnel demands.
6. Provide qualified staff, based on demand.

Quality of the teaching-learning process
1. Allocate sufficient resources.
2. Establish teacher training programme.
3. Optimize national resources.
4. Conduct a systematic and integrated evaluation of the teaching-learning process and its impact.
5. Link teaching to practice and research.
6. Fortify and expand accreditation programmes.
Financing
1. Increase the efficiency in the use of budgetary resources through rationalization of the structures of education, training and research.
2. Increase the efficiency in the use of international resources (e.g., through interinstituATIONAL coordination of research).
3. Provide economic incentives, e.g., tax cuts and credit extensions to employers who support investment in HRD programmes in education, training and research.
4. Encourage Mexican agencies which support science and technology (e.g., Conacyt, Funsalud, etc.) to develop special funds for education and training in environmental and occupational health.
5. Provide information on internal funding sources.
6. Self-financing
7. Develop system based on “polluter pays” to finance HRD in environmental and occupational health.
8. Involve the community.

Legislation
1. Investigate the legislative framework and identify areas where laws are absent, inconsistent and duplicative.
2. Establish norms (institutional and legislative framework).
3. Improve the legislative framework based on the above investigation.
4. Fortify the process of accreditation and certification for professional and technical personnel.

Interinstitutional coordination
1. Establish a committee to evaluate the existing system (administrative structure, educational programmes, interagency agreements and information systems) and propose improvements.
2. Establish a national committee to oversee HRD in environmental and occupational health.
3. Establish linkages between different training programmes (e.g., national system for HRD in agriculture).
4. Identify areas where standards are absent or inconsistent.
5. Identify existing competency-based standards within the regulatory framework of each institution.

International cooperation
1. Establish programmes of international technical cooperation based on development activities in Mexico and other countries.
2. Encourage international organizations to coordinate their activities through the national committee on HRD.
Planning/Programming

1. Establish an intersectoral committee to design and implement regional programmes.

2. Develop exercises on planning and programming at the grassroots level (COPLADE).

3. Establish norms and standards to guide regional groups in programmes development.

4. Promote interinstitutional agreements for HRD in environmental and occupational health.

5. Develop a strategy for communication and participation.

6. Develop the national programme based on the regional programmes
Appendix XIV

SELECTED REFERENCES IN PLANNING
FOR HUMAN RESOURCES DEVELOPMENT

HRD planning

- Guidance on the staffing of environmental health services in the European Region. Copenhagen, WHO Regional Office for Europe (in press).
- Guidance on the development of educational and training curricula for health professionals in the European Region. Copenhagen, WHO Regional Office for Europe (in press).

WHO resources for teaching Environmental Health and Epidemiology


Appendix XV

TOPICS IN “HUMAN RESOURCES FOR HEALTH: TOOLKIT FOR PLANNING, TRAINING AND MANAGEMENT”
Produced by Dr Tom Hall for WHO, 1995

1. Introduction and overview
   Part 1: Includes Tool Kit objectives, computer instructions, table of contents
   Part 2: Guidelines to help users identify and prioritize health workforce problems
   Part 3: Helps users identify the proper tools for addressing these problems

2. Topics in Human Resources Development
   Contains almost 300 topics covering the planning, production and management of the health workforce

3. Guidelines for a Human Resources Development Study
   Contains step-by-step suggestions for the design and conduct of a one-year study of the quantitative and qualitative aspects of HRD.

4. Guidelines for Making a Review of Human Resources for Health
   Provides guidelines for making a quick (3 months) and relatively inexpensive review of the health workforce situation in a country or region.

5. Guidelines and Data Requirements for a Human Resources for Health Information System
   Provides information for use in the analysis and presentation of human resources data.

   Provides guidelines to help countries and instructors plan and conduct a workshop on human resources development.

7. Guidelines for Legislation Affecting the Development of Human Resources for Health
   Suggestions for analysis, preparation and implementation of legislation and regulations affecting human resources; includes sample legislation from selected countries.

8. Guidelines for Developing and Using Workload Indicators of Staffing Needs
   Describes an approach to equalizing workloads and developing staffing norms.

9. Guidelines for the Application of a Functional Job Analysis
   Briefly describes the functional job analysis method of analyzing jobs for the purposes of improved planning, training and management.

10. Microcomputer Models for the Projection of Workforce Supply and Requirements
    Two Lotus 123-compatible spreadsheet models to facilitate projection of workforce supply and requirements.