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**EVALUATION OF THE PAN AMERICAN CENTER FOR SANITARY
ENGINEERING AND ENVIRONMENTAL SCIENCES**

**HEALTH AND THE ENVIRONMENT
THE EVALUATION OF A PAN AMERICAN CENTER**

Pan American Health Organization, Washington, D.C; and

National Audit Office, London, UK

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EXECUTIVE SUMMARY AND RECOMMENDATIONS

Part 1: Introduction

1. The Director of the Pan American Sanitary Bureau has requested the Pan American Health Organization's Office of Analysis and Strategic Planning to conduct a broad-based relevance, effectiveness and efficiency evaluation of the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) in collaboration with the National Audit Office of the United Kingdom and external consultants. It is expected that the process of evaluating this particular Center would produce an evaluation model that can be applied to subsequent evaluations of other Centers of the Organization.

2. The Director asked the evaluation team to address four main issues (listed in the section "Mandates and Objectives of the Evaluation") which coalesced around three key evaluation questions:

- ❑ Is CEPIS delivering effective, relevant, useful, high-quality, technical cooperation which contributes to improving environmental health in the Americas;
- ❑ Is CEPIS well managed; and
- ❑ Has the merger of resources from the former Pan American Center for Human Ecology and Health (ECO) with CEPIS created the intended synergies.

3. The Executive Summary and Recommendations section of the document summarizes the analysis and presents the recommendations that emanate from it. The sections that follow include a brief description of the evaluation mandate, the evaluation design, the data sources and methods, and limitations of the study. Parts 1, 2, 3, and 4 present the issues and include detailed analyses of the results of the evaluation research in reference to each of the evaluation questions. The document also includes annexes and references.

Part 2: Is CEPIS Effective?

CEPIS is seen as a positive and effective force in the region that responds quickly to requests for assistance.

4. Over 85 per cent of all respondents to the four surveys considered that the technical cooperation activities and services provided by CEPIS are relevant. CEPIS is perceived as an agency that has the ability to convene other institutions, to address specific issues of common concern and arrive at practical solutions. There is frequent praise of REPIDISCA, CEPIS' documentation service, and of its rapid response in emergency and disaster situations; CEPIS' role during the cholera epidemic was repeatedly highlighted. Respondents also noted that CEPIS' prestige was the product of more than 30 years of overall good service to the host country and to the rest of Latin America. The Center is perceived as being easy and user-friendly in terms of access, particularly its laboratory. Its current and past leadership teams are deemed to be a major source of its strength. CEPIS' additional strengths include its publications and its Virtual Library for Health and Environment. Over the past decade CEPIS has been included in prospective studies (1996 and 1998), and several evaluations have been carried out of some of its projects and activities, particularly of those funded by extrabudgetary resources. CEPIS has received good reviews from internal and external auditors. In 2001 CEPIS received the PAHO Director's Award as an Outstanding Team. CEPIS has successfully adapted to the changing needs of the Region and this fact has also contributed to the positive reviews.

5. Local/international non-government organizations that have been working closely with CEPIS were equally enthusiastic about the Center: These bodies perceive CEPIS as a good partner and stated that the international donor community is more supportive when local NGOs are supported by, or have entered into an alliance with, CEPIS.

CEPIS' priorities are seen as appropriate though more could be done to work with regional health and environment policy makers.

6. Respondents were generally supportive of CEPIS' priorities but thought that more could be done to work with regional health and environment policy makers. Some respondents, however, considered that environmental epidemiology and toxicology are areas in which CEPIS still has much work to do to better attend to Regional needs. Some PAHO country office respondents indicated that by placing greater attention on technical cooperation for strategic planning and institutional strengthening (or reform), CEPIS would be strengthened and have a better chance of carving out for itself a more secure niche for the future in the field of health and environment.

7. In addition, CEPIS does not adequately reach every country that it should – particularly in the English-speaking Caribbean. CEPIS is an overwhelmingly Spanish-language institution, with few documents in English and fewer in French. While there is interaction with environmental institutions in the Caribbean, this is not done at a level that satisfies a number of respondents.

8. Some respondents, particularly those from small countries and PAHO offices remote from CEPIS indicated that they wanted to know more about, and have more direct contact with CEPIS. These respondents felt that the Website and the Virtual Library did not offer the kind of dialogue they wanted. In particular, it was suggested that the Caribbean states, the PAHO country offices in that area and CEPIS itself would benefit from a monthly or quarterly CEPIS newsletter in English, focused on the Caribbean, that would include highlights of CEPIS' activities in this sub-region, as well as the services that the Center offers.

9. CEPIS is perceived as struggling to balance a limited budget with potentially large demands for services. There is a general perception that the Center is excessively dependent on someone else's funds – inside and outside PAHO -- to be able to do much-needed work. Either for lack of sufficient funds, or because of a 33 year-old organizational culture driven toward "fixing" specific, compartmentalized water and sanitation problems (or both) CEPIS is perceived as more reactive than proactive, notwithstanding the fact that, particularly in the area of information, product development, and the laboratory, CEPIS has taken significant proactive steps. Respondents consider that CEPIS should gravitate more toward technology assessment, to becoming an "auditor" of available technologies, as opposed to trying to develop new technologies with very scarce resources

10. A perceived lack of regular funds for sustained consultation or proactive approach frequently parallels the view that CEPIS could also benefit from having an organized, professional resource mobilization capability. Some respondents felt that CEPIS could benefit from a unit or specialized group within the Center which focused on resource mobilization, public relations, marketing, and international relations. Such a unit could play an advocacy role for health and environment by promoting the environmental agenda in the Americas. It was suggested that together with an external relations-fund raising office, every senior CEPIS staff member and technical officer should have fund-raising as part of their job descriptions and be provided with opportunities for developing this skill.

11. Respondents overwhelmingly (88 per cent) believe that there is still a need for a regional environmental health center and that CEPIS should provide this service (79 per cent) without thwarting the evolution of local consultancy services.

12. The majority of the respondents did not identify a clear alternative to CEPIS and they considered that CEPIS fills a vital niche particularly when it engages in strategic technical cooperation with governments, helping them to develop public policies and train their staffs. The countries deem it vital to have an institution with a Pan American mandate to act as a catalytic agent of multiple national and international actors.

Overall, the relationship between CEPIS and the PAHO country offices is good.

13. Overall the relationship between CEPIS and the PAHO country offices is very positive, with about 90 per cent of the PAHO/WHO Representatives stating that it is either “good” or “very good.” Nevertheless, PAHO/WHO Representatives considered that CEPIS lacked both specific cooperation policies relating to each country, and mechanisms for dialogue with the countries to establish priorities and cooperation plans. The responses revealed that a number of PAHO country offices would like to see a more formal, regular process for developing partnership programs with CEPIS -- dovetailing with and going beyond PAHO's Biennial Program Budget planning. CEPIS is seen as “demand-driven,” in a way that some respondents see dangerously close to reacting to almost ad-hoc demands from their own offices.

14. The evaluation team believes that the original rationale for PAHO operating a center such as CEPIS is still valid. We believe that CEPIS' cooperation should be adjusted to fit the changed circumstances and a wider field of operations. We understand that there is a real demand for technical cooperation from the countries and that CEPIS has the capacity to respond to these demands. As the areas of intervention evolve and re-define themselves so CEPIS must continue adjusting its programs and priorities.

Part 3: Is CEPIS Well Managed?

Management structures and processes need to be more clearly defined.

15. CEPIS does not have a clear senior staff management structure with documented minutes of senior staff meetings and recorded decisions. It also lacks a medium term strategic plan which identifies CEPIS' main priorities and broadly states what it believes it can achieve from its own resources plus, where known, the resources of other third parties. Such a plan would need to be developed in conjunction with key stakeholders and outline changes which would be introduced to CEPIS' current range of activities. The process and the product of a strategic planning exercise would make it easier for CEPIS to define its goals to key other stakeholders, including international donors and partner health and environment authorities. It would also be a useful internal management tool for assessing whether the expected results and activities proposed for inclusion in the BPB can demonstrate their contribution to CEPIS' overall strategic directions.

16. External donors were generally satisfied with the way CEPIS manages grants. They felt that they were kept adequately informed of progress and that CEPIS delivered on agreed tasks.

CEPIS has developed guidance on project design but more consideration needs to be given to methods of achieving objectives, communicating results, managing risks and evaluating impacts.

17. CEPIS has developed its own good practice guidance on project design and most of those interviewed carried out elements of sound project management. However, practices varied widely. Project files and documents were not in a consistent form and new staff were not being systematically trained in project management skills. The more detailed project documents were associated with external bids for funding and it was not always evident how these projects fit within CEPIS', and more generally PAHO's policy directions. In the absence of proper project documents, it was not clear that the risks to a project's success had been considered. We found no evidence that CEPIS staff were systematically identifying potential risks and ways to manage them. There was little evidence at the project development stage that consideration had been given to how a project would be evaluated or the results communicated with key audiences. The team also found over-centralization in certain routine administrative procedures.

18. CEPIS has no formal and systematic quality control system to ensure that all products and services are systematically reviewed prior to release. However, most of those interviewed had developed their own review arrangements. In some cases this involved the creation of internal ad-hoc groups, occasionally cross-discipline, and in others the use of external reference partners.

Staff development requires a higher profile.

19. Staff are CEPIS' major resource and the levels of enthusiasm and dedication that staff exhibited were evident during our visit. However, CEPIS does not seem to have a human resource strategy to identify staff profiles and needs for the future, nor how existing staff throughout the Center can best be developed. There is an annual training program that lists the staff development courses planned for a year – including external courses and internal courses. Yet, there are no formal records of what additional training individual staff members need to receive over time, following a development plan for the Center and for the individual. The one area which has prioritized staff training, as part of its accreditation process, is the laboratory. But even here staff are struggling to find time to meet the obligatory requirement of training each year.

20. While funding for CEPIS is tight, training is never a luxury for the public sector in these technologically fast-paced times. Attending courses externally may not be always feasible but through the use of Web-based courses and through using in-house staff to deliver training, staff development in CEPIS could be given a substantial boost.

CEPIS' overall expenditure grew steadily during the 1990s but declined slightly in 2000-01.

21. CEPIS' overall expenditure grew steadily during the 1990s but declined slightly in 2000-01. The merger into CEPIS of some of the resources of the former ECO Center gave CEPIS an additional three professional posts (an Epidemiologist, a Toxicologist, and an Environmental Pollution Advisor), along with \$727,000 of non-post funds. The non-post funds included funds from the abolishment of a vacant P4 post. Given the influx of funds, there has been much interest in how the Center has effectively carried out its business. One of the main issues that the evaluation team has analyzed is whether or not this level of funding is adequate, and if it is being used in the most effective manner given the Center's transformation with the merger, and its re-direction toward a catalyst organization as a result of the Director's 1998 Special Advisory Group study. The 2002-2003 Biennial Program Budget (BPB) attempts to better define the Center's functions and the number of CEPIS projects has expanded from five in its 2000-2001 BPB to nine newly defined projects in the 2002-2003 BPB. There was consensus among those staff members interviewed that CEPIS needed to become more proactive. However, we feel that as each advisor is only allocated \$10,000 per biennium for proactive management of their respective programs, in reality there is little they can initiate or achieve.

Although CEPIS' regular budget funding is expected to remain fairly stable, funding from other sources is likely to be less predictable and CEPIS will need to do even more to diversify funding sources.

22. CEPIS' regular budget is expected to remain fairly stable, though as funding from other sources becomes less predictable, CEPIS will need to do even more to diversify its funding base. PAHO's regular budget for CEPIS is some 62 per cent of the 2000-2001 total budget, down from about 75 per cent in 1994-1995. This is not due to a decrease in absolute funding; rather it is a result of an increase in share of the total budget from both extra-budgetary sources and cost recovery work. Although the regular budget element has grown in recent years, the share of funding contributed by the other two sources doubled during this period, increasing in absolute terms by 112 per cent and 350 per cent respectively.

23. The CEPIS laboratory's success story is promising. The laboratory has evolved from functions limited to research of water treatment in 1970, to a full-blown accredited reference laboratory in 2001. Income generation has grown significantly during this period. In 1990-1991, activity from laboratory services totaled \$170,000. In 2000-2001 the laboratory generated over \$750,000 in income, mainly from Peru and a few other countries. A key driver of this growth has been CEPIS' ability to expand the quality and range of services provided by the laboratory, towards areas of technical cooperation and away from the more "retail" side of processing environmental samples. The laboratory currently generates most of its income from accreditation and advisory services as a reference laboratory. And having recently been accredited by the Canadian Association of Environmental Accredited Laboratories (CAEAL), the current trend in income generation is expected to continue.

24. CEPIS has many of the elements in place of a well managed organization and has proved effective in seeking funds from a wide variety of sources. Over the medium term, core funding for CEPIS from PAHO funds is unlikely to grow. Yet the demand and need for CEPIS' services continues to expand. CEPIS has worked hard to seek extrabudgetary funds and has been by and large successful in this endeavor. Grants from other governmental and international organizations accounted for 19 per cent of the budgeted expenditure in 2000-01, and the laboratory has proved particularly effective in picking up grants and selling its services. In the medium term these sources should keep CEPIS financially viable though there is a need to seek grants from a wider range of donors, and to market CEPIS' work more aggressively, especially the work with the indigenous rural poor and those living on the fringes of the urban centers. To this end, CEPIS needs to build up its marketing/grant seeking capabilities.

Part 4: Has the Merger with ECO Produced the Expected Synergies?

Opinions are divided on whether the merger with ECO was well implemented.

25. Opinions are divided among respondents on whether the merger of CEPIS with some financial, human and post resources from the former ECO Center in Mexico was well implemented with large numbers of respondents uncertain. In open-ended responses many respondents indicated that they felt that something had been lost through the merger which has yet to be fully restored. Several Washington-based PAHO managers, in particular, considered that CEPIS had yet to fully grasp the complexity of the work that ECO used to carry out in relation to the environmental impacts on human health, and had not taken enough steps to close the knowledge, skills, and program gaps resulting from the merger. At the same time there is evidence in the work of CEPIS and the response of CEPIS staff that some progress is being made and that staff are developing new ways of working which could result in future synergies and advances.

26. Several respondents felt that the merger was done too quickly with too many questions unanswered and the mandate unclear. One respondent suggested that when the merger decision was taken the HEP Division lacked a comprehensive vision of its long-term future outside the traditional water, sanitation, and solid waste areas. In the future, before abolishing or creating a Center, or merging Centers, there is a need for exercises in futures/scenarios/strategic planning, involving as many stakeholders as possible. A few respondents saw the merger primarily as a cost-cutting exercise during which adjustment problems would linger on for several years, and eventually the reshuffling would result in changes to the characteristics of both former components.

More needs to be done to work with governments to monitor environmental health risks and to keep the public informed about such risks.

27. Associated with a new catalytic role, there is an expectation that CEPIS would do more to advise and motivate national authorities, the academic community, non-government organizations and communities on the processes of assessing, prioritizing and controlling environmental risks in the Americas. In particular, there is a role for CEPIS to play in addressing the growing gap that separates the scientific description of risks and the public understanding of those risks. Doing this would involve CEPIS staff in moving beyond the traditional scientific and technical focus of the two environmental health Centers. It would require developing new ways of communicating about risk through the mass media to the community, although a strong base in science and technology must be maintained to underpin these broader activities. While CEPIS provides wide ranging training programs across the region on environmental health risks, it has not developed a strategic plan to show what it intends doing in this field nor a strategy for getting clear messages to the general public.

28. A new CEPIS should focus, not only on existing environmental health problems of the Region, but play a role in scanning for future threats, as suggested by the 1998 Special Advisory Group. In particular, it recommended that CEPIS should provide guidance to Member States on how to ensure that all major development projects incorporate an element of environmental health assessment into their planning. To implement this recommendation, CEPIS has made resources available by translating WHO documents into Spanish, has made a tutorial program available on the web-site and has revised a training course developed by ECO. CEPIS, however, could do more to monitor major development projects in the Region, to alert Member States of the need to carry out environmental health assessments and to disseminate good practices in this area.

29. The apparent over-reliance on the Virtual Library for Health and environment in the progression to the new CEPIS deserves some attention, since it would seem hard to build up the non-traditional areas at CEPIS in its progress toward a new Center with such heavy reliance upon one major approach.

30. The picture that emerges from the analysis of the CEPIS-ECO merger is one of a Center working to become the new CEPIS suggested by the 1998 Special Advisory Group. Serious efforts are being done in this direction, with renewed emphasis in the 2002-03 Biennial Program Budget. However, when looking at the entire process involving the closing of ECO, the reinforcing of CEPIS with ECO resources, and the four-year evolution toward a new CEPIS, many respondents from the PAHO country offices and Headquarters communicate a sense of loss for PAHO and the Region, particularly in answers to open-ended questions. It would seem from their responses that this loss has yet to be remedied, either by CEPIS or by another entity inside or outside PAHO.

Conclusion

31. CEPIS is perceived as a valuable source of technical cooperation and a broker of knowledge. It would be too much of a loss to abolish it and too much effort to try to re-create an international agency to fulfill its role. However, CEPIS should adapt its present role and functions in terms of being more pro-active outside Peru, and working more through networks of institutions having a multiplier effect on its technical cooperation.

32. CEPIS must direct itself toward a transformation into a catalyst organization, as was recommended by the 1998 Special Advisory group. In tune with this new direction of CEPIS, a shift in the internal allocation of resources should be expected. To the extent that this process continues, the CEPIS planning, programming, and budgeting process must find a better way to distribute available Regular Budget resources.

33. CEPIS should develop an appropriate resource mobilization strategy as well as a permanent internal capacity for resource mobilization that would originate and coordinate efforts on behalf of CEPIS with the support of the HEP Division and PAHO's Office of External Relations. Developing this capacity would require additional funding. This could be achieved by either a re-direction of CEPIS resources or additional funding approved by the Director of PAHO.

34. The merger of two different technological cultures is not easy even in private industry. We feel that the construction of a "new" CEPIS is still a work in progress which deserves the support of an external advisory body..

Recommendations:

On effectiveness and relevance:

- ❑ CEPIS should engage in a strategic planning/futures exercise in the context of the HEP Division;
- ❑ CEPIS should create a unit to promote and market the center and to mobilize additional financial resources;
- ❑ CEPIS should continue to re-orient its work to place a greater emphasis on working with governments on environmental policy and put less effort into solving technical problems and providing local-level technical advice and support;
- ❑ CEPIS needs to evolve progressively from a reactive to a proactive mode by establishing consultation processes and internal mechanisms for a priori consultation with PAHO country offices; and
- ❑ The Center needs to keep the Caribbean more informed of its activities and address its particular issues so that the Caribbean can benefit more from CEPIS' services, particularly laboratory training.

On management:

- ❑ CEPIS should adopt a more formalized management structure with regular meetings, formal reviews of progress and records of decisions;
- ❑ CEPIS should develop a medium-term strategic plan showing key directions it wishes to pursue and supported by a detailed business plan and a risk management strategy;
- ❑ CEPIS should regularly produce exception reports which show which projects have been delayed or are running over budget and noting any remedial actions;

- ❑ CEPIS has developed guidance on project design but more consideration needs to be given to methods of achieving objectives, managing risks and communicating results;
- ❑ CEPIS should establish a more formal system for reviewing the quality of its products and activities, evaluating major projects and considering the results of such reviews;
- ❑ Staff development needs to be given a higher profile with all staff being set annual professional development targets;
- ❑ CEPIS needs to seek vigorously to diversify its sources of extra-budgetary funds; particularly by making potential funding bodies more aware of the impacts CEPIS' work has on alleviating poverty, for example among indigenous populations, and people living in rural or urban-marginalized areas;
- ❑ CEPIS' laboratory should continue emphasizing a wider marketing for its accreditation services beyond the current range of countries; and
- ❑ There should be a shift in the internal allocation of resources so that professional staff have increased resources for proactive work.

On the CEPIS-ECO merger:

- ❑ The strengthening of the process toward the creation of a "new," more catalytic CEPIS recommended by the 1998 Special Advisory Group, should be fostered by the establishment of an Advisory Committee reporting to the HEP Division Director and through him/her to the Director, PAHO. This Advisory Committee would advise the HEP Division on technical and policy aspects concerning the continuing building of a "new" CEPIS reflecting the anticipated evolution of the health and environment field in the Americas. The Committee should meet at least once a year under a rotating chairmanship. The Director of PAHO would appoint its members upon the recommendation of the HEP Division, for limited, staggered, but potentially renewable terms. Care should be taken that at all times its membership should be balanced between veteran international professionals from the sanitary engineering field, and from the environmental epidemiology, toxicology, and human health risk assessment fields. The CEPIS Director would be an ex-officio member of the Committee. CEPIS staff should provide the Committee's secretariat support;
- ❑ CEPIS should seek innovative ways of helping the people of the Region develop a better understanding of environmental health risks; as a first step in the process CEPIS should develop a

- strategic plan to show what it intends to do and nurture links with key regional print and television journalists to ensure that environmental issues obtain a higher media profile;
- CEPIS should monitor major development projects in the Region, alert Member States of the need to carry out environmental health assessments and disseminate good practice guidelines;
 - CEPIS should produce more guides and teaching materials to assist countries in developing sustainable development plans and make these materials widely accessible in the PAHO official languages; and
 - CEPIS should fill any vacancies in areas related to environmental epidemiology, toxicology, and human health risk assessment as soon as feasible.

MANDATE AND OBJECTIVES OF THE EVALUATION

The Director of the Pan American Sanitary Bureau had requested the Pan American Health Organization's Office of Analysis and Strategic Planning to conduct a broad-based relevance, effectiveness and efficiency evaluation of the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) in collaboration with the National Audit Office of the United Kingdom and external consultants. It is hoped that in the process of evaluating this particular Center an evaluation model will be developed that can be applied to other Centers of the Organization.

The Director asked the evaluation team to address four main issues:

- Is the original rationale for the Pan-American Health Organization (PAHO) operating this Center still valid;
- What is the nature of the working relations among CEPIS and the PAHO country offices, and do these relations result in actual synergies;
- What is the financial outlook, or medium- and long-term viability of CEPIS, as well as suggestions on how can it be improved; and
- Whether the merger of resources from the former Pan American Center for Human Ecology and Health (ECO) into CEPIS had been effective. What were the characteristics of the implementation of the merger of resources, and what lessons could be learned.

EVALUATION DESIGN

CEPIS has undergone several reviews and studies in recent years. In 1998 a Special Advisory Group made recommendations about CEPIS' future strategies and priorities. Some evaluations have been carried out of specific externally funded projects, or of CEPIS' participation in Regional (Hemispheric) PAHO projects, such as Workers' Health. However, the overall relevance, effectiveness, and efficiency of CEPIS have not been subject to an evaluation.

The key issues identified by the Director coalesce around three evaluation questions:

- Is CEPIS delivering effective, relevant, useful, high-quality, technical cooperation which contributes to improving environmental health in the Americas;
- Is CEPIS well managed; and
- Has the merger of some resources from the former Pan American Center for Human Ecology and Health (ECO) with CEPIS created the intended synergies.

DATA SOURCES AND METHODS

The evaluation questions were addressed through a detailed analysis of material and center data; an analysis of a sample of CEPIS project files, and interviews with CEPIS staff, key stakeholders in Peru, PAHO headquarters staff and other regional experts, and surveys. To complement the skills of PAHO's Office of Strategic Analysis and Planning team, additional internal assistance was provided by PAHO's Budget Office, and external advice from the UK's National Audit Office as well as a consultant on health and the environment .¹

¹ The CEPIS evaluation team included: Roberto Rivero (evaluation coordinator), Office of Analysis and Strategic Planning/Deputy Director's Office, PAHO; David Goldsworthy, National Audit Office, London, United Kingdom; Luis U. Jáuregui, JVP Consultores, Buenos Aires, Argentina; Román Sotela, Chief, Budget Office, PAHO; Cristina Puentes-Markides, Office of Analysis and Strategic Planning, PAHO; Carlos Walter, Office of Analysis and Strategic Planning, PAHO. Mónica Stenning, Silvia Molina, and Jenny Newhall, PAHO, provided valuable secretarial support. Dianne Arnold, Eric Kwak, and Sergio Roschke, Management and Information Support Department, PAHO, provided important assistance in relation to the survey software.

| Evaluation Issues | Method | Data Sources |
|--|---|--|
| Is CEPIS delivering relevant, effective, high-quality technical cooperation? | <ul style="list-style-type: none"> ◆ Surveys; ◆ Semi-structured interviews; ◆ Analysis of program and administrative data; ◆ Site visit. | <ul style="list-style-type: none"> ◆ Agreements; ◆ Historical documents; ◆ CEPIS administrative and program data; ◆ CEPIS project documents; ◆ PAHO Governing Bodies' documents ◆ HEP Division documents. |
| Is CEPIS well managed? | <ul style="list-style-type: none"> ◆ Interviews; ◆ Site visit; ◆ Analysis of program, administrative, financial data; ◆ Budgetary and financial analysis. | <ul style="list-style-type: none"> ◆ Administrative records; ◆ Financial records; ◆ PAHO programming documents; ◆ CEPIS programming and budgetary documents; ◆ HEP Division documents; ◆ PAHO and CEPIS staff rosters. |
| Has the merger of resources produced the expected synergies? | <ul style="list-style-type: none"> ◆ Questionnaires to CEPIS; ◆ Surveys ◆ Interviews | <ul style="list-style-type: none"> ◆ Special Advisory Group report; ◆ CEPIS and HEP Division documents |

Notes on Data Collection

Surveys and Interviews: 157 surveys were sent or administered to key individuals throughout the Region: senior staff at PAHO's Washington Office (100 per cent response rate), to PAHO/WHO Representatives (89 per cent response rate); to Peruvian government officials, non-government organizations, and bilateral and multilateral agencies (80 per cent response rate); and to government officials of other PAHO Member States, non-governmental organizations, bilateral and multilateral agencies (38 per cent). The surveys sought respondent's perceptions on such issues as how effectively CEPIS carried out its work, the relevance of CEPIS' work, the level of consultation, and timeliness of responses as well as seeking concrete examples of ways CEPIS had made a difference. Together with the surveys we conducted 31 semi-structured interviews, based on the survey instruments, which were carried out with key individuals in Peru and Washington to probe responses more deeply, and to triangulate responses to postal surveys.

Site visit: A one-week site visit was made by the four key researchers. The visit included interviews with a cross-section of CEPIS staff, an examination of project control systems for a sample of activities, and a review of the use of the AMPES programming and monitoring systems.

Analysis of program and administrative data: Data from AMPES was analyzed to examine budgetary and expenditure trends and to compare planned and recorded project outcomes.

Document reviews: Previous reviews, future-oriented studies, and evaluations of specific CEPIS activities carried out by internal or external bodies were examined to assess take up of previous recommendations.

LIMITATIONS OF THE STUDY

Possible threats to internal validity could be present in terms of the selection of the survey respondents. Most of the government and some non-governmental organization (ngo) respondents belong to a regional water and sanitation professional community, many of whom have enduring ties to cepis and to paho's health and environment professionals, particularly in peru and south american countries. In some cases, health and environment advisors in the paho country office answered some of the surveys intended for

paho/who representatives. A greater response rate from government officials and multilateral organizations could have strengthened the sample of our survey. It would also have been helpful if members of the evaluation team could have re-visited cepis and could have visited a sample of other member states of paho to ascertain directly the opinion of government and ngo officials concerning cepis' work – which among other things would have enlarged the sample size. A visit to mexico would have been particularly important, in order to analyze how resources that were once a part of the eco center are currently addressing the needs of mexico and – potentially – the needs of other paho member states. In addition, members of the evaluation team visited cepis in july and september 2001, a period of governmental transition in peru, the host government of cepis, and thus were not able to ascertain long-term host government financial policy toward the center. In terms of external validity – how or whether to generalize the findings of the study to other paho centers -- some findings, e.g., regarding center mergers and the need to diversify and expand non-regular budget sources, could potentially be generalized; but attention should be given to the fact that each paho center is a unique institution in its own right.

PART 1:INTRODUCTION

WHAT IS CEPIS?

1.1 The Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) can trace its origins to the early 1960s, when a growing number of professionals in the fields of water and sanitation began promoting the idea of a center that would support the countries of the Region in addressing environmental health problems. The Inter-American Association of Sanitary Engineering (AIDIS) created a Sponsoring Committee to advocate for the establishment of the center, obtaining the support of PAHO's program on environmental sanitation. In 1967 a PAHO mission visited Lima to start formal discussions toward the establishment of the center. Traditionally, September 1968 has been accepted as the foundation date, although the formal agreement between the Government of Peru and PAHO was not signed until 8 April 1971. ² CEPIS' mandate is to provide a focus for regional technical cooperation in the field of environmental health in the Americas. It is part of a network of eight current centers established under the auspices of the Pan American Health Organization, each focusing on different regional or sub-regional health concerns. ³

² Pan American Centers, (PAHO, Subcommittee on Planning and Programming of the Executive Committee, Document SPP36/11, 19 February 2002.)

³ Ibid.

1.2 In July 2001, CEPIS employed about 90 staff, including 24 employed to work on short-term grant funded projects. CEPIS staff provide advice and support to national, provincial, and municipal agencies responsible for public health and environmental protection throughout the Americas. It conducts training workshops, seminars and conferences, undertakes primary and applied research and seeks to foster networking and information sharing via publications and Websites.

1.3 CEPIS is a unit within PAHO's Health and Environment Division (HEP Division). It is part of PAHO's three pronged strategy for providing advice and support on environmental health issues in the Americas. The other two elements of the strategy are a team of 12 professionals based in PAHO's Washington D.C. headquarters, and 27 professional advisers based in PAHO's country offices, and in PAHO's US-Mexico Field Office at El Paso, Texas, serving 35 countries and territories.

1.4 CEPIS' priorities during much of the past thirty years have focused on helping Member States improve access to clean water and basic sanitation. However, increasingly its role has expanded to provide cooperation on such emerging problems as waste disposal, air pollution and managing dangerous chemicals.

1.5 CEPIS coordinates the Pan American Information Network on Environmental Health (REPIDISCA), a decentralized system that selects and analyzes bibliographic materials with an emphasis on Latin America and the Caribbean. In 2000, CEPIS was awarded the Standards Council of Canada's Accreditation to ISO Guide 25/ISO 17025. This award enables CEPIS to review the quality of environmental laboratory facilities throughout the Region, provide advice and training where needed, and accredit those which meet the strict international quality standards.

1.6 In 1997, CEPIS was merged with some of the resources of the Pan American Center for Human Ecology and Health (ECO) which had been based in Mexico, and which had been closed that year. ECO's main focus had been on identifying environmental health risk factors, whereas CEPIS' work was directed more at the consequences of the risks. The merger was aimed at creating a synergy and ensuring that risk identification and management permeated the work of the entire center.

1.7 Over the past decade CEPIS has been included in prospective studies (1996 and 1998), and several evaluations have been carried out of some of its projects, and activities, particularly of those funded by extrabudgetary resources. CEPIS has received good reviews from internal and external auditors. In 2001 CEPIS received the PAHO Director's Award as an Outstanding Team.

HOW IS CEPIS FUNDED?

1.8 CEPIS received \$5.6 million from PAHO's central budget and \$4.9 million for the biennium 2000-01 in grants from a range of other donors including the German GTZ, COSUDE (Switzerland), and US/EPA. In addition, the Government of Peru continues to provide CEPIS with accommodation in purpose-built research facilities in Lima, an annual grant of about \$250,000 and a range of grants from the Ministry of Health. In the 2000-01 biennium CEPIS' operated five key projects, including general administration (Table 1).

Table 1: CEPIS key programs 2000-01

| Project title | PAHO | | Other funds | | Total | |
|--|-------|--------|-------------|--------|-------|---------------|
| | Staff | '000\$ | Staff | '000\$ | Staff | '000\$ |
| Water and sanitation | 9 | 1,454 | 6 | 2,288 | 15 | 3,742 |
| Workers health | 1 | 179 | - | - | 1 | 179 |
| Environmental risks and chemical security | 7 | 1,616 | 1 | 377 | 8 | 1,993 |
| Incorporation of health issues into environmental management | 1 | 96 | | 0 | 1 | 99 |
| Center management (including laboratories, oversight of web-site and publications) | 26 | 2,293 | 14 | 2,273 | 40 | 4,566 |
| Total | 34 | 5,638 | 21 | 4,941 | 65 | 10,579 (a) |

Source: PAHO/CEPIS

(a) Total funds allotted. It excludes funds allotted by PAHO Headquarters as Program Support Costs (\$197,000).

In 2000-01, CEPIS allocated its budget of some \$10.6 million across five program areas.

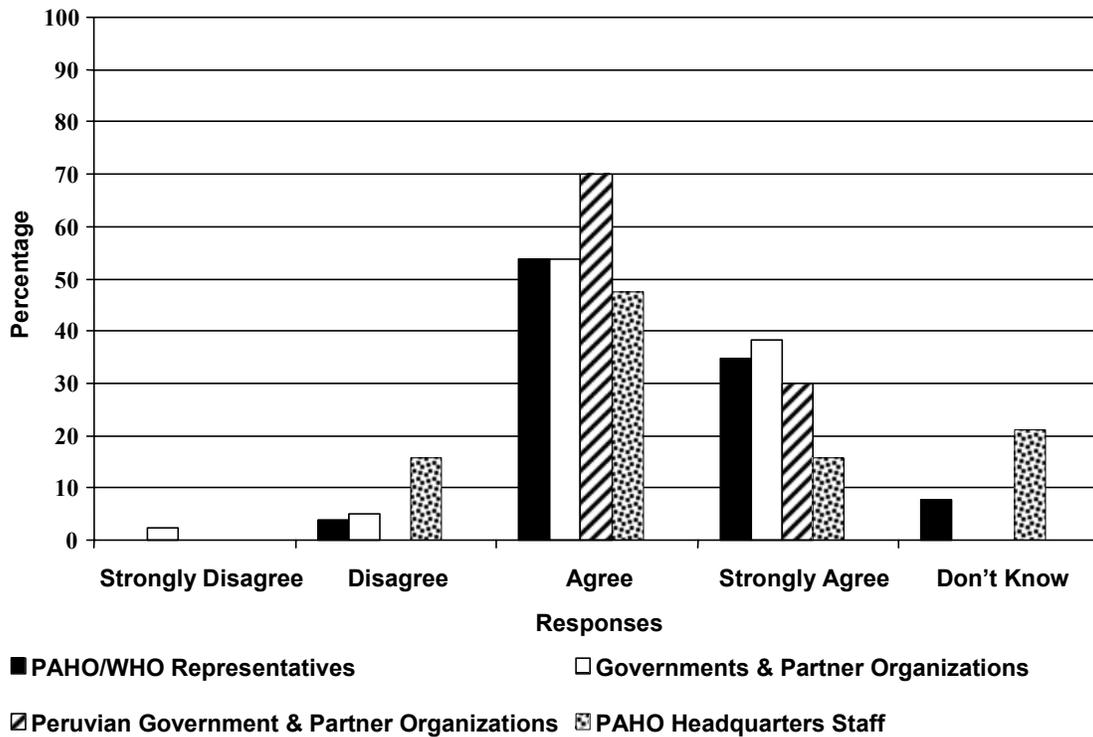
Part 2: Is CEPIS effective?

2.1 This Part examines whether CEPIS is delivering effective, relevant, useful, high-quality, technical cooperation which contributes to improving environmental health in the Americas. In addition, it examines whether the original rationale for PAHO operating this Center is still valid.

CEPIS is seen as a positive and effective force in the region that responds quickly to requests for assistance.

2.2 Over 85 per cent of all respondents considered that the technical cooperation activities and services provided CEPIS are relevant (Figure 1). CEPIS is perceived as an agency that has the ability to convene other institutions, particularly in Peru, to address specific issues of common concern and arrive at practical solutions. There is frequent praise of REPIDISCA, CEPIS' documentation service, and of its rapid response in emergency and disaster situations; CEPIS' role during the cholera epidemic was repeatedly highlighted. Respondents also noted that CEPIS' prestige has been the product of more than 30 years of overall good service to the host country above all, but also to the rest of Latin America. The Center is seen as being easy and user-friendly in terms of access, particularly its laboratory. Its current and past leadership teams are deemed to be a major source for its strength. Other favorable points about CEPIS are its publications and its contributions to and use of the Virtual Library being developed by another PAHO Center, BIREME, and its CD ROM productions.

Figure 1. The Technical Cooperation, products and services of CEPIS are relevant



Source: PAHO Surveys

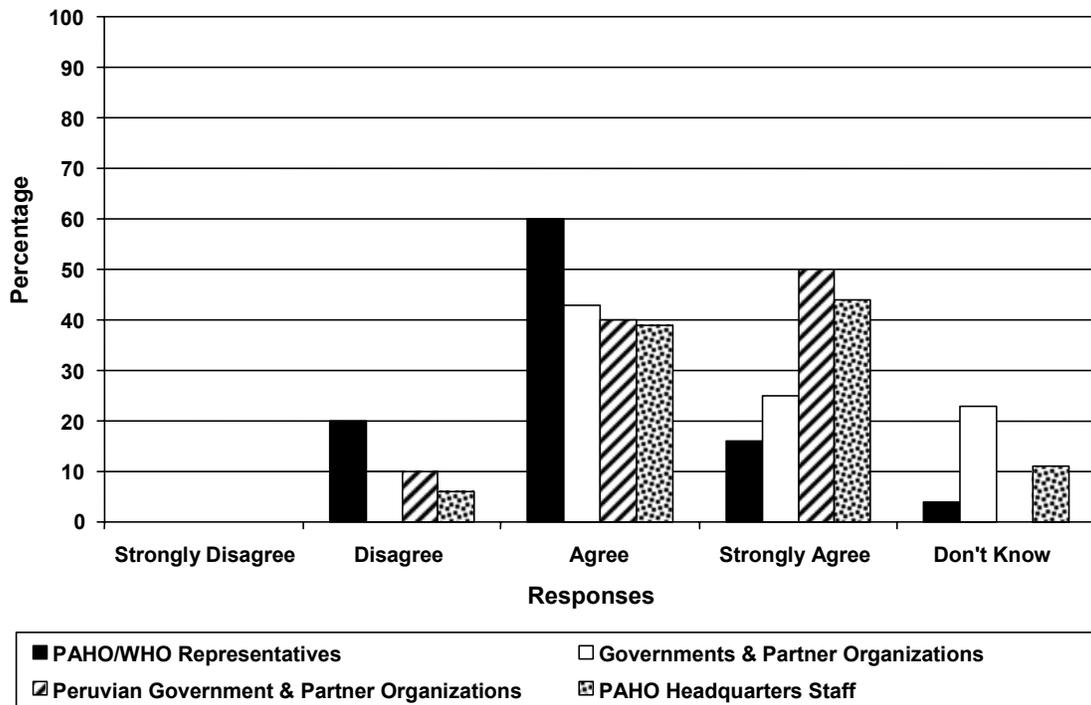
Across all categories of respondents CEPIS' products and services were seen as relevant.

2.3 Other strengths of CEPIS commonly identified by many respondents are its:

- high-quality professionals;
- strong historical links with the water and sanitation sector;
- good administration and internal management;
- laboratory and training laboratory methods badly needed in the Region; and
- good synchronization with the PAHO Headquarters Health and Environment Division in programmatic terms.

2.4 In addition 75 per cent of respondents either agreed or agreed strongly that CEPIS responds quickly to requests for assistance, as shown in Figure 2.

Figure 2. CEPIS responds promptly to requests for assistance



Source: PAHO Surveys

A majority of respondents agreed or strongly agreed that CEPIS responds promptly to requests for assistance.

2.5 The attainment by the CEPIS laboratory of the Standards Council of Canada accreditation to ISO Guide 25/ISO 17025 has also given CEPIS a new frontier of technical cooperation to help bring international standards to environmental health laboratories throughout the Region.

2.6 In the specific survey aimed at PAHO/WHO Representatives (PWRs) -- the managers of PAHO's country offices -- it became clear that in their opinion the usefulness, quality, and general relevance of CEPIS' work is almost without question. Adding the "agree" and "strongly agree" PWR responses to each question, CEPIS obtains anywhere between 52 and 96 per cent support throughout the "Usefulness of CEPIS' Work," section of the PWR survey.

2.7 Local/international non-government organizations that have been working closely with CEPIS were equally enthusiastic about the Center. At one NGO officials spoke in terms of a “pre-CEPIS and a post-CEPIS” era in terms of the way in which the water and sanitation needs of their constituents are being addressed. These bodies perceive CEPIS as a good partner and stated that the international donor community is more supportive when local NGOs are supported by, or have entered into an alliance with, CEPIS.

CEPIS’ priorities are seen as appropriate though more could be done to work with regional health and environment policy makers.

2.8 Respondents were generally supportive of CEPIS’ priorities but thought that more could be done to work with regional health and environment policy makers. In addition, the Center is also seen as having difficulties in linking environmental health with human health issues in a manner which is useful and meaningful to the countries. Some respondents considered that environmental epidemiology and toxicology are areas in which CEPIS still has much work to do to attend to regional needs.

2.9 All those surveyed were asked to state their perceptions of the three most important environmental problems affecting either the Region as a whole or the country in which they were working. Overwhelmingly, lack of safe drinking water, sanitation, and adequate solid and liquid waste disposal facilities were mentioned. Issues such as environmental toxicology, pollution, contamination, and the impact of the environment on human health were also seen as important, emerging problems. CEPIS is perceived – particularly by those responding to open-ended questions -- as still addressing mostly the former as opposed to the latter.

2.10 In their responses to open-ended questions, some PAHO country offices also considered that CEPIS needed to re-orient its mix of staff to ensure that it could better cover such specializations as epidemiology, risk communication, environmental toxicology, and environmental impact assessment on human health. These respondents suggested that CEPIS should take stock and pare down its multiple, but mostly reactive activities to those with the greatest chance of having an impact at the national and local level – effectively doing less in well developed fields such as water, sanitation and solid waste management. About one fourth of the PAHO country offices made statements indicating that by placing greater attention on technical cooperation for strategic planning and institutional strengthening (or reform), CEPIS would be strengthened and have a better chance of carving out for itself a more secure niche for the future in the field of health and environment.

2.11 CEPIS has started to focus more strategically on how it can best encourage and support national governments in introducing new policies and regulatory frameworks in the environmental health area. For

example, CEPIS' air quality project is working with governments to agree on emission standards and measurement systems. But these changes have yet to be felt and recognized by most survey respondents. Respondents believe that CEPIS should do more to promote itself as a facilitator, as a broker of health and environmental expertise.

2.12 CEPIS does not adequately reach every country that it should – particularly in the English-speaking Caribbean. In that area of the Americas, for example, some national respondents and more than 75 per cent of the PAHO country offices in that sub-region highlighted the need for a more personalized presence of CEPIS in the Caribbean, through its staff members and through special publications. Even in an electronic age referring potential national clients to a Website or to a virtual library portal does not go sufficiently far in building up relations and networks.

2.13 CEPIS is an overwhelmingly Spanish-language institution, with few documents in English and fewer in French. While there is interaction with environmental institutions and PAHO Country Offices in the Caribbean, this is not done at a level that satisfies a number of respondents. CEPIS is a source of consultation for PAHO's Caribbean Program Coordinator; it has been directly involved with the countries in the Caribbean in a number of areas, including laboratory quality control. Yet the feeling is clear that the PAHO country offices in the Caribbean would welcome more direct, long-term involvement of CEPIS. It would seem that countries and offices would like to know more about, and have more regular dialogue with CEPIS in a manner beyond what a Website or the BVSA (the Virtual Library) can offer potential customers in small countries far away from CEPIS. In particular, it was suggested that the Caribbean states, the PAHO country offices and CEPIS itself would benefit from a monthly or quarterly CEPIS newsletter in English, focused on the Caribbean, that would include highlights of CEPIS' activities in this sub-region, as well as the services that the Center offers. More native-English speakers on CEPIS' technical staff was also seen as something that could improve the Center's image, usefulness to, and relation with the Caribbean.

It is widely acknowledged that CEPIS' effectiveness is constrained by a lack of funds.

2.14 CEPIS is perceived as struggling to balance a limited budget with potential large demands for services. There is a general perception that the Center is excessively dependent on someone else's funds – inside and outside PAHO -- to be able to do much-needed work. As one respondent put it: "You call CEPIS up and the first thing they ask you is for your allotment number." Or as another stated: "Their lack of resources for activities outside Peru is almost a caricature." In the same vein, and perhaps more intriguing, another respondent indicated that "...CEPIS only responds when another institution pays for air tickets, per diem and so forth. CEPIS seems unwilling to commit itself to delivering [sustained] technical cooperation – it

just does not have the funds.” Therefore, while it is true that the image and reputation of CEPIS as an easy-to-reach, user-friendly resource in environmental health is definitely there among its clients and stakeholders, that notion is frequently tempered by the sober realization that often the Center cannot and will not move more proactively for lack of funds.

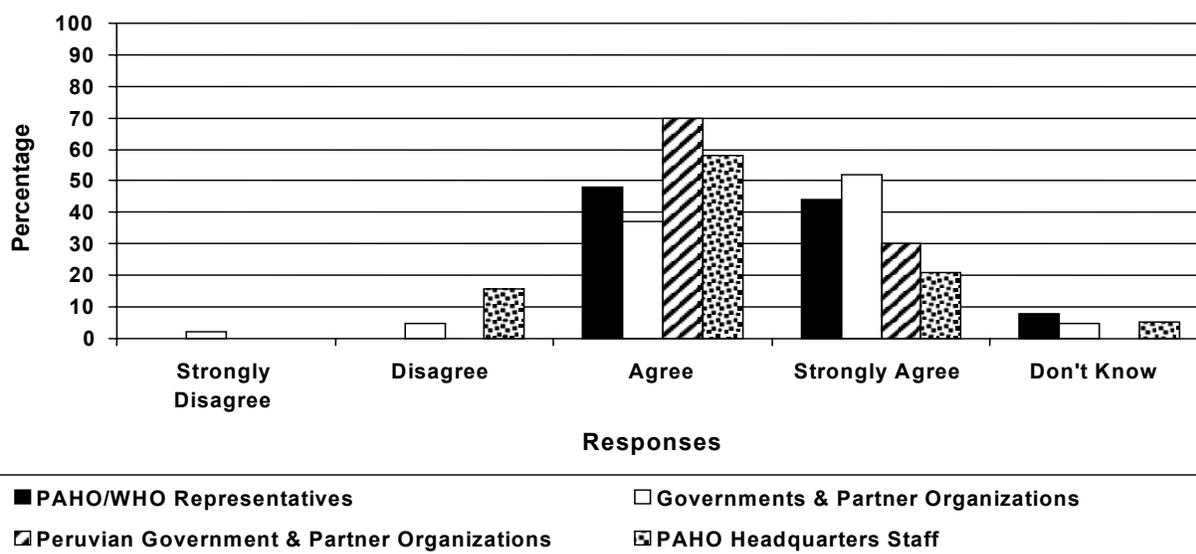
2.15 Either for lack of sufficient funds, or because of a 33 year-old organizational culture driven toward “fixing” specific, compartmentalized water and sanitation problems (or both), CEPIS is perceived as more reactive than proactive. Survey respondents frequently suggest that CEPIS needs a more “entrepreneurial,” more strategic vision; as one of them stated it, CEPIS must “...look deep into the future and see how it must position itself in the health and environment market of the next quarter century – i.e., what technical cooperation ‘niche’ it can fill in the upcoming years.” Respondents consider that CEPIS should gravitate more toward technology assessment, to becoming an “auditor” of available technologies, as opposed to trying to develop new technologies with very scarce resources.

2.16 This lack of regular funds for sustained consultation or a proactive approach frequently parallels the view that CEPIS also lacks an organized, professional resource mobilization capability. Some respondents felt that CEPIS could benefit from a unit or specialized group within the Center not just for resource mobilization, but also for public relations, marketing, and international relations to support an advocacy role for health and environment, and to foster the environmental agenda in the Americas. Our own analysis during the site visit left us with similar impressions. It is felt that together with an external relations-fund raising office, every senior CEPIS staff member and technical officer should have fund-raising as part of their job descriptions and be provided with opportunities for developing this skill.

2.17 In addition, Peruvians or respondents based in Peru, frequently voiced concerns that CEPIS is being hampered by red tape which they perceived as emanating from PAHO-Washington. It is difficult to discern whether that judgment has been arrived at independently, or if it is being offered by CEPIS to explain its own operational difficulties. However, the frequency of these opinions in interviews and open-ended survey questions merits some future analysis, particularly in terms of more flexible delegation of authority. One senior Peruvian Government official related how once the government had the donor funds transferred to CEPIS in order to organize a workshop, which the Center was unable to deliver because of “PAHO’s red tape,” and the funds and the opportunity were lost.

Respondents overwhelmingly (88 per cent) believe that there is still a need for a regional environmental health center and that CEPIS should provide this service (79 per cent) without thwarting the evolution of local consultancy services.

Figure 3. There is a continuing need for an international center in environmental health



Source: PAHO Surveys

All categories of respondents consider that there is still a need for an international environmental health center in the Americas.

2.18 Should CEPIS be closed? And, if that were to happen, what could replace it? Overwhelmingly, as seen in Figure 3, the four groups of respondents considered that an international center on environmental health must be maintained. Only a few were able to identify an institution or groups of institutions that could cost-effectively replace the services that CEPIS provides to the Region.

2.19 In the early days of the Center's operations in Peru the degree of governmental organization and know-how in the areas of water and sanitation was not as developed as today; therefore, CEPIS was a ready source of advice and reassurance. Most Peruvian interviewees saw a continuing need for an international institution providing technical cooperation in environmental health; moreover, they affirmed that CEPIS is that institution, and that it should continue to be based in Peru.

2.20 The majority of the respondents did not identify a clear alternative to CEPIS and they considered that CEPIS fills a vital niche particularly when it engages in strategic technical cooperation with governments, helping them to develop public policies and train their staffs. The countries appear to consider it vital to have an institution with a Pan American mandate to act as a catalytic agent of multiple national and international actors.

2.21 On the other hand, and particularly outside Peru, a group of respondents indicated that there may be a number of centers of excellence in Latin America and North America which – albeit for a fee – could take up a substantial amount of the role and functions currently carried out by CEPIS. However, this group of respondents is not large, and they also recognized that some countries and some public agencies and utilities in Latin America would be unable to afford to obtain consultancies from these sources. Nevertheless, there is increasing competition throughout Latin America among national and multinational firms wishing to provide some of the types of services provided by CEPIS, often for free. CEPIS recognizes the need to nurture an indigenous industry of private sector companies able and willing to provide services to those agencies and states in the Region that are able to pay for the advice and services they need. CEPIS treads a difficult tight rope in this area and it needs to be continually vigilant that it is working to develop a market, not to frustrate its emergence.

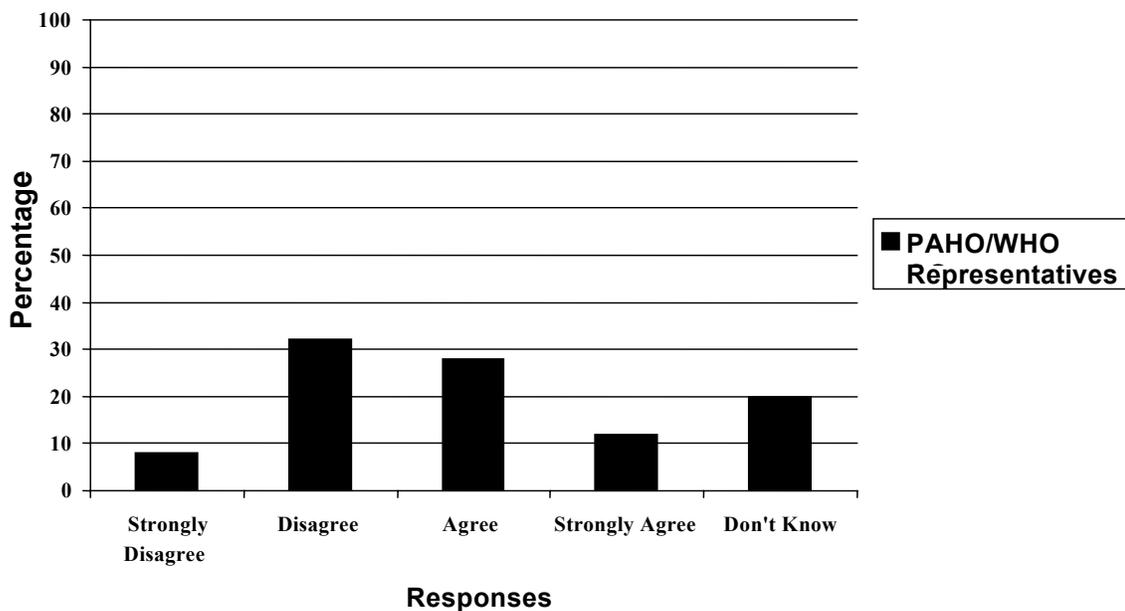
2.22 It was pointed out, moreover, that closing CEPIS and trying to shift its responsibilities to PAHO Washington Headquarters Divisions would be extremely problematic. The Divisions already have so many administrative and overseeing responsibilities that the research, training, publishing, information dissemination and technical cooperation activities which the PAHO Centers in general, and CEPIS in particular perform would be seriously handicapped.

2.23 CEPIS has developed deep roots in Peru. It has good connections in its host country. Its know-how in sanitary engineering is perceived to be among the best among comparable institutions available to Latin America. It offers an adequate infrastructure for training human resources, and a very good documentation center. Praise of CEPIS' "mystique" (in terms of commitment to its mission and to high standards of excellence) were frequently mentioned by survey respondents, particular among PAHO country office, government and NGO respondents.

2.24 While most respondents highlight the quality of the human resources of the Center, some view these human resources as too thinly spread, technically and intellectually. For example, several respondents view CEPIS as lacking in some key professional specializations, such as environmental risk communications, environmental toxicology, and environmental health impact assessment. There is also no marketing and lobbying expertise at CEPIS.

2.25 Lack of regular, planned CEPIS consultation with PAHO/WHO Representatives (PWRs) was expressed repeatedly in the closed- and open-ended responses (Figure 4). According to the responding PWRs, CEPIS is perceived as lacking both specific cooperation policies related to each country, and mechanisms for dialogue with the countries to establish priorities and cooperation plans. The responses indicate that a number of PAHO country offices would like to see a more formal, regular process used to develop programs with CEPIS -- dovetailing with and going beyond PAHO's Biennial Program Budget planning. CEPIS is seen as "demand-driven," in a way that respondents see dangerously close to reacting to almost ad-hoc demands from their own offices.

Figure 4. CEPIS consults widely on the need for its technical cooperation and services

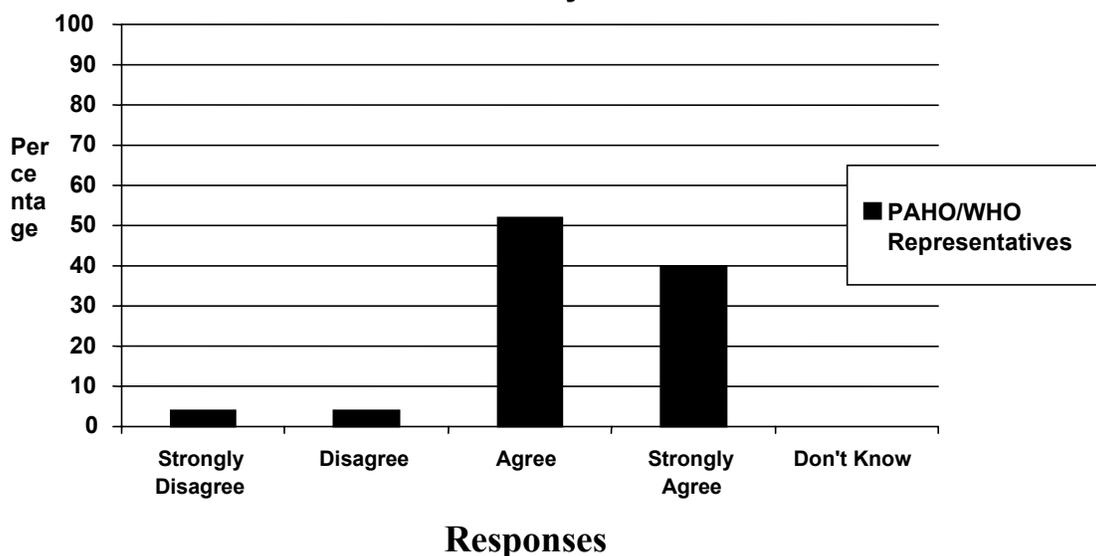


Source: PAHO survey

PAHO/WHO Representatives consider that there is room for improvement in the way CEPIS consults with key stakeholders.

2.26 Overall, the relationship between CEPIS and the PAHO country offices is good (Figure 5), but there are concerns about insufficient feedback and poor follow up. In terms of requests for feedback on the part of the Center, the opinions are either evenly divided, with a large minority (32 percent of respondents to a subsequent question on feedback) actually disagree. If those who chose to respond “Don’t know” to the feedback question are added to these respondents, CEPIS has a significant room for improvement in terms of how it seeks to actually learn from the experience of both customers and staff.

Figure 5. Is there a good working relationship between CEPIS and your PWR Office?



The relationship between PAHO country offices and CEPIS is very good.

2.27 Monitoring and evaluation to improve the technical cooperation and services is viewed as weak , and many respondents have no idea whether this is done at all. While feedback is normally requested from participants attending a CEPIS-led workshop or seminar, CEPIS should be on guard against confusing these almost routine post-workshop questionnaires with an established plan to undertake serious monitoring and evaluation of its own activities and services.

2.28 In view of our analysis and findings, the evaluation team believes that the original rationale for PAHO operating a center such as CEPIS is still valid. CEPIS was originally created to respond to the needs of the countries of the Region for a center on environmental technology that would support their policies and general programs of technical cooperation developed jointly with PAHO's management, as well as specific regional and/or national projects. To this end, CEPIS cooperated with the countries in the development of information systems; in promoting and supporting applied research; in the development and updating of human resources; and contributed to the strengthening of national environmental health institutions. In the early years, these activities were essentially addressed to drinking water supply and sanitation. Over the years, the concept of environmental health broadened, bringing about an expansion of CEPIS' original areas of work. Today, the merger of some resources from the former ECO Center, and the need to identify, evaluate and control environmental risk factors that negatively impact human health open up a significantly wider scope of action.

2.29 We believe that CEPIS' work should be adjusted to fit the changed circumstances and a wider field of operations. We understand that there is a real need for technical cooperation from the countries and that CEPIS' operating capacity is available. As the areas of intervention evolve and re-define themselves, so must CEPIS continue adjusting its programs and priorities.

RECOMMENDATIONS:

2.30 CEPIS is perceived as a valuable source of technical cooperation and a broker of knowledge. It would be too much of a loss to abolish it and too much effort to try to re-create another international agency to fulfill its role. However, CEPIS should adapt its present role and functions in terms of being more proactive outside Peru, and working more through networks of institutions having a multiplier effect on its technical cooperation. The evaluation team recommends that:

- ❑ CEPIS should engage in a strategic planning / futures exercise in the context of the HEP Division;
- ❑ CEPIS should create a unit to promote and market the center and to mobilize additional financial resources;
- ❑ CEPIS should continue to re-orient its work to place a greater emphasis on working with governments on environmental policy and put less effort into solving technical problems and providing local-level technical advice and support;
- ❑ CEPIS needs to evolve progressively from a reactive to a proactive mode by establishing consultation processes and internal mechanisms for a priori consultation with PAHO country offices; and
- ❑ The Center needs to keep the Caribbean more informed of its activities and address its particular issues so that the Caribbean can benefit more from CEPIS' services, particularly laboratory training.

PART 3: IS CEPIS WELL MANAGED?

3.1 This Part examines whether CEPIS is well managed. It looks at arrangements for managing the Center, the center's overall business strategy; systems for planning, executing and monitoring projects, and staff development and asset management. It also looks at patterns of income and expenditure and the medium-term financial viability of the Center.

Management structures and processes need to be more clearly defined.

3.2 CEPIS operates within PAHO's biennial programming framework. In consultation with key stakeholders, a two-year program is developed and ratified by the Division Director and by the Director of PAHO. More detailed annual plans and regular monitoring reports are produced and discussed with the Director of the Health and Environment Division in Washington on a bi-annual basis. Internal audits, carried

out by PAHO's Internal Audit unit and external audits, (the latter carried out by the UK's National Audit Office), have reported favorably on the financial controls operated by CEPIS.

3.3 The Director manages CEPIS through his close working knowledge of the Center and regular meetings with senior staff. There is no clearly defined senior management team, no formal system of meetings and no formal record of decisions and agreed actions. For example, there are no formal arrangements, and records, of meetings to review progress and help identify, at an early stage, what projects may be slipping, or going over budget, and what remedial actions might be required. The resource pressures facing CEPIS and the growth in externally funded projects necessitate greater formalization of management processes and structures.

CEPIS does not have a business plan and more attention is needed to financial viability and risk management.

3.4 Other than the Biennial Program Budget (BPB), CEPIS does not have a medium term strategic plan which could identify what CEPIS seeks to achieve and how its resources, both personnel and financial, can be best used. Deep-rooted problems require sustained effort over time, which in turn require planning horizons which are longer than those of the BPB (two years). A medium term strategic plan could help CEPIS identify its main priorities and broadly state what it believes it can achieve from its own resources plus, where known, the resources of other third parties. This plan would need to be developed in conjunction with key stakeholders and outline changes which would be introduced to CEPIS' current range of activities. Such a strategic plan would make it easier for CEPIS to define its goals to other key stakeholders, including international donors and partner health and environment authorities. It would also be a useful internal management tool for assessing whether the expected results and activities proposed for inclusion in the BPB can demonstrate their contribution to CEPIS' overall strategic directions.

3.5 There were examples of strategic plans emerging in some areas, which could be drawn on in formulating CEPIS' strategic plan, but they were not everywhere evident. The HEP Division's Evaluation 2000 of water supply and sanitation, for example, clearly articulates the future challenges facing PAHO in the areas of water quality and sanitation and provides a basis for CEPIS to negotiate and develop its contributions in these areas. Such a strategic plan would also respond to external criticisms that CEPIS does not act strategically enough.

3.6 Clearly these longer-term plans may be buffeted by external events, particularly as CEPIS is increasingly dependent on external funding and has to respond to the changing priorities of donors and

others. Therefore, a flexible strategic plan supported by strategic thinking skills and foresight will help in understanding why CEPIS has sought certain grants and make sure that these contribute to the broad aims of the organization.

3.7 Associated with its strategic plan, CEPIS would benefit by developing a risk management strategy to describe the major threats the Center faces and how it plans to manage these threats. Risks the Center faces include: damage to its reputation through, for example, failed projects; loss of income, for example, if the laboratories were destroyed, or the loss of vital data through a computer failure. A risk strategy could be developed to accompany the strategic plan and be linked to CEPIS' arrangements for managing emergencies, for example, a fire destroying the current premises, and its approach to ensuring business continuity during such an emergency.

3.8 Underpinning these strategic documents, CEPIS currently lacks a financial plan which can demonstrate over time the Center's viability.

CEPIS is delivering projects to time and cost but there is scope to further strengthen project controls.

3.9 CEPIS plans and manages its activities using PAHO's AMPES programming system. The biennium plan shows what projects the center plans to undertake. Each project is further sub-divided into "expected results" areas, lines of activity and outputs, and costs attributed to the main outputs. Prior to the ratification of the plan, there is widespread consultation with key stakeholders inside and outside PAHO. For the 2000-01 biennium, CEPIS divided its work into five project areas and 34 expected results areas. CEPIS uses this system well, amending the plan to reflect new developments, for example unexpected additional external funding for a project or changes in delivery dates. Although activities have target completion dates and budgets, exception reports are not routinely produced to highlight projects which are facing delays. Such a system would better enable CEPIS to follow up on work which had slipped.

3.10 Over the years, CEPIS staff have developed a series of individualized programming instruments at various technical and managerial levels in order to better program, monitor, and control the work that they do with respect to their own BPB. Although staff believe that this has been helpful to them, and some positive features such as accounting for staff costs have been introduced into these instruments, caution must be exercised in avoiding inefficient use of staff time as this effort may promote duplicity of work. With a redesigned BPB and subsequent bi-annual work plans in 2002-2003, the need for supplemental programming instruments might fade.

3.11 External donors were generally satisfied with the way CEPIS manages grants. They felt that they were kept adequately informed of progress and that CEPIS delivered on agreed tasks. While not directly aimed at CEPIS, at least one donor was critical of the time taken by PAHO to produce reconciled financial statements. When negotiating with external funding bodies, CEPIS has to be sure that it only enters into agreements consistent with its own strategic directions and be confident that it can deliver and deliver well. At times this may mean that CEPIS can not respond to donor needs and timelines.

3.12 In order to examine the adequacy of the project designs and management underpinning AMPES, we examined eight expected results areas drawn from two of CEPIS' main projects, water and sanitation and environmental risks and chemical security (Table 2). For each expected results area we sampled key AMPES documents, interviewed key staff and examined project outputs.

Table 2: Sampled expected results areas 2000-01

| Project | Expected result area | PAHO | | Other funds | | Total | |
|--|----------------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
| | | Staff '000\$ | Activities '000\$ | Staff '000\$ | Activities '000\$ | Staff '000\$ | Activities '000\$ |
| Water and sanitation | Solid waste disposal | 197 | 11 | | 6 | 197 | 17 |
| | Appropriate technology | | | 120 | 550 | 120 | 550 |
| | Waste water treatment | 12 | 3 | 5 | 15 | 17 | 18 |
| | Analysis of water quality | 95 | | 38 | 706 | 133 | 706 |
| Environmental risk and chemical security | Air quality | 192 | 17 | | 58 | 192 | 75 |
| | Environmental toxicology 1 | 89 | 304 | | | 89 | 304 |
| | Improving Laboratories 2 | | 19 | | | | 19 |
| | Child health 3 | | | | 153 | | 153 |
| Totals | | 585 | 354 | 163 | 1,488 | 748 | 1,842 |

Notes:

- (1) A total of \$900,000 was paid to CENSA in Mexico, over the period 1998-2001. There are no more payments to be made by PAHO/CEPIS.
- (2) Work on this area has been subsumed within work on the analysis of water quality.
- (3) This topic is a combination of three results area all run out of Cuernavaca, Mexico and includes researcher salaries

Source: CEPIS

The sampled expected results were drawn from CEPIS' water and sanitation project and from the environmental risk and chemical security project..

3.13 These areas were examined in July 2001, i.e. some 75 per cent of the way through the biennium. At that stage, CEPIS had delivered, or was working on, 84 per cent of the 130 planned activities and had taken on a further 60 activities which had not been identified at the start of the biennium. Some, 16 per cent of the planned activities had been postponed or cancelled. The largest proportion of activities postponed was in the area of solid waste disposal, in part apparently because the senior researcher was seconded to other work in CEPIS.

3.14 One of the projects sampled operated as a contracted out project delivered by an external institution. While the expected project outputs were clearly specified in the contract documents, evidence to confirm what had been delivered was difficult to obtain. The deliverables in the contract document, AMPES, and the progress reports submitted by the external organization were not comparable and there was little evidence of close project management by CEPIS.

Table 3: CEPIS expenditures as of July 2001

| Project | Expected result area | Total Budget 2000-01 '000\$ | Total spend to July 2001 '000\$ | Percentage spent to July 2001 % |
|---|--|-----------------------------------|---------------------------------------|--|
| Water and sanitation | Solid waste disposal | 215 | 164 | 77 |
| | Appropriate technology | 670 | 391 | 58 |
| | Waste water treatment | 34 | 18 | 51 |
| | Analysis of water quality | 839 | 297 | 35 |
| Environmental risk and chemical security | Air quality | 267 | 205 | 77 |
| | Environmental toxicology ⁽¹⁾ | 393 | 367 | 93 |
| | Improving Laboratories ⁽²⁾ | 19 | 14 | 74 |
| | Child health (3) | 153 | 133 | 87 |
| Total | | 2,590 | 1,589 | 61 |

Notes:

- (1) A total of \$900,000 was paid to CENSA in Mexico, over the period 1998-2001. There are no more payments to be made by PAHO/CEPIS.
- (2) Work on this area has been subsumed within work on the analysis of water quality.
- (3) This topic is a combination of three results area all run out of Cuernavaca, Mexico and includes researcher salaries

Source: PAHO/CEPIS

In July 2001, 75 per cent through the biennium, CEPIS had spent 62 per cent of its budget

3.15 In July 2001, 75 per cent of the way through the biennium, CEPIS had spent 62 per cent of its budget. Three of the expected results areas were under-spending, in one case substantially. Only 35 per cent of the budget for analyzing water quality had been spent. CEPIS' monthly financial reports do not record the reasons for spending variances.

CEPIS has developed guidance on project design but more consideration needs to be given to methods of achieving objectives, communicating results, managing risks and evaluating impacts.

3.16 CEPIS has developed its own good practice guidance on project design and most of those interviewed carried out elements of sound project management. However, practices varied widely. Project files and documents were not in a consistent form and new staff were not being systematically trained in project management skills. The more detailed project documents were associated with external bids for funding and it was not always evident how these projects fit within CEPIS, and more generally PAHO's policy directions. In the absence of proper project documents, it was not clear that the risks to a project's success had been considered. We found no evidence that CEPIS staff were systematically identifying potential risks and ways to manage them.

3.17 When designing projects, CEPIS staff tend to have one preferred way of carrying out a project. Project documents did not show whether other options had been considered to achieve a given objective and why these were rejected in favor of the preferred option. Nor was sufficient consideration and creativity given to identifying potential funding sources e.g. public-private partnerships, co-funding, sponsorship or advertising.

3.18 Good project design requires consideration of how the results of a project can be effectively disseminated and used. Across the projects we examined, we found no evidence that at the design stage teams were considering how the results of the work would be marketed or communicated. The main methods for disseminating results of work were by adding information onto CEPIS' Website or virtual library, organizing workshops, and sending materials to PAHO's country offices. Little use was made of press releases, attendance at major fairs or setting up stalls at major UN or other conferences. At the stage when a project is approved, a communications plan needs to be produced identifying who are the key audiences for a product or service and how they can be best reached. More attention needs to be given to nurturing links with regional and national press, targeting press releases at particular specialized groups or to coincide with particular events or anniversaries.

3.19 CEPIS staff recognize the socio-cultural aspects of improving environmental health and the importance of working with communities for sustained periods in order to bring about cultural or institutional

change. For example, in a project aimed at developing appropriate technology to provide better sanitation to remote, predominantly indigenous communities, the project team works with local community leaders and health workers to prepare the community for new ways of living and working prior to introducing the changes.

3.20 CEPIS has no formal quality control system to ensure that all products and services are systematically reviewed prior to release. However, most of those interviewed had developed their own review arrangements. In some cases this involved the creation of internal ad-hoc groups, occasionally cross-discipline, and in others the use of external reference partners.

End-of-course or end-of-workshop surveys or questionnaires may serve a purpose in alerting trainers to aspects of courses in need of immediate attention, but judging impact is a much more involved undertaking requiring the support of the Center Director and donors.

3.21 Once an activity has been produced, it is important for CEPIS to have arrangements in place to follow up products and services to evaluate their effectiveness and to feedback findings into future activities. There were some examples of good practice in evaluating the outputs and outcomes. For example, the team working on a project funded by the US Environmental Protection Agency to help improve the quality of laboratories in Central America have developed a staged approach to assessing the impact of their work. Training program participants are assessed to verify that they have understood course content and are surveyed to ensure that they were satisfied with the quality of the course. To check that what is learned is being used, and that it has a longer term impact, the CEPIS team monitor the quality of samples in the laboratories – identifying the proportion which are unsatisfactory and over time monitoring for improvements.

3.22 Such practices need to be widespread in CEPIS. End-of-course training program surveys may serve a use in alerting trainers to aspects of courses in need of immediate attention but judging impact is not so easily assessed. In fact, judging impact is a complex undertaking. CEPIS needs, for example, to follow up a sample of course participants, and their parent organizations, to assess whether newly acquired skills and knowledge are being used and are making a difference.

3.23 When evaluations are carried out, CEPIS lacks a formal system for critically reviewing recommendations and, if the recommendations are accepted, ensuring that they are implemented.

Staff development requires a higher profile.

3.24 Staff are CEPIS' major resource and the levels of enthusiasm and dedication that staff exhibited were evident during our visit. However, CEPIS does not seem to have a human resource strategy which identifies what staff it needs in the future nor how existing staff throughout the Center can best be developed. There is an annual training program which lists the staff development courses planned for a year

– including external courses and internal courses. Yet, there are no formal records of what additional training individual staff members need to receive over time, following a development plan for the Center and for the individual. The one area which has prioritized staff training, as part of its accreditation process, is the laboratory. But even here staff are struggling to find time to meet the obligatory requirement of training each year.

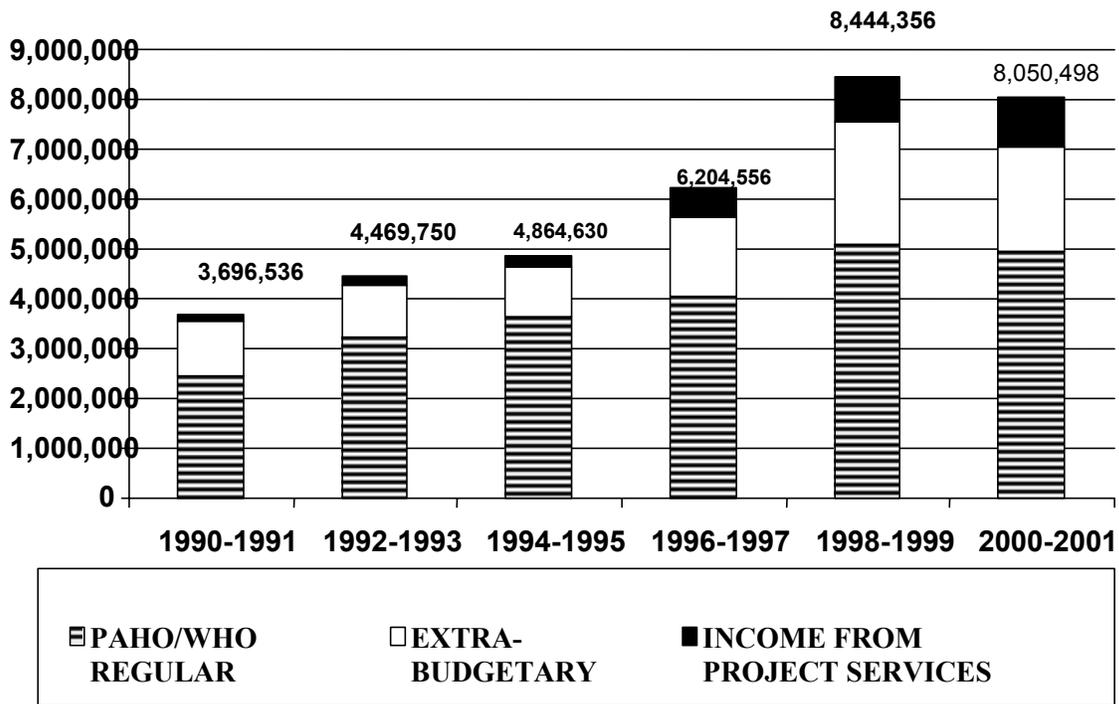
3.25 While funding for CEPIS is tight, training is never a luxury in the public sector in these technologically fast-paced times. Attending courses externally may not be always feasible but through the use of web-based courses and through using in-house staff to deliver training, staff development in CEPIS could be given a substantial boost.

3.26 The team also found an over-centralization of certain routine administrative procedures. For example, the process of obtaining approval for making an international phone call or even a long-distance call within Peru may take several hours. While this approach may insure a tight control over certain expenditure items it may not be cost-effective in the longer term. It may not be compatible with the image of a more proactive Center that aggressively presents itself to the Americas and to the donor community. Making each senior professional an effective fund-raiser will not be easy with controls such as these.

Following the merger with some of the ECO resources, CEPIS' budget structures are beginning to change to reflect the broader function.

3.27 The merger into CEPIS of some of the resources of the former ECO Center gave CEPIS an additional three professional posts (an Epidemiologist, a Toxicologist, and an Environmental Pollution Advisor), along with \$727,000 of non-post funds. The non-post funds included funds from the abolishment of a vacant P4 post. Given the influx of funds, there has been much interest in how the Center has effectively carried out its business. One of the main issues that the evaluation team has analyzed is whether or not this level of funding is adequate, and if it is being used in the most effective manner given the Center's transformation with the merger, and its re-direction toward a catalyst organization as a result of the Director's 1998 Special Advisory Group study.

Figure 6. CEPIS Expenditure History



CEPIS' overall expenditure grew steadily during 1990s but declined slightly in 2000-2001

3.28 The total CEPIS budget is derived from three primary sources of revenue: regular budget funds, extra-budgetary funds (including grants for donors and from the Peruvian Government), and income generated from project service. Figure 6 shows that during the 1990s the level of total expenditure over the years increased and then dipped slightly in 2000-01.

3.29 The CEPIS program budget during the period 1992-1993 to 2000-2001 was a reflection of the HEP Division program budget in terms of its technical project structure reflected in the AMPES programming system. There were concerns expressed by a number of CEPIS staff members that this tight integration with the HEP Biennial Program Budget (BPB) has limited the flexibility in the type of activities undertaken by the Center, and that this has slowed down changes in CEPIS.

3.30 The 2002-2003 BPB attempts to define better the Center's functions and the number of CEPIS projects has expanded from five in its 2000-2001 BPB to nine newly defined projects in the 2002-2003 BPB (refer to Annex I). Staff in CEPIS believe the new BPB allows for a better reflection of the program of work of CEPIS and gives the Center a greater measure of functional and technical independence from the HEP Division. The 2000-2001 biennium is seen by CEPIS staff to have been a transition biennium, and staff expect to exercise a more catalytic role in 2002-2003.

3.31 Two perspectives emerged from our interviews on the effect of this link with the HEP Division. The first one would like CEPIS to have greater independence to act as a regional Center. The second view supports the notion that there should be a coordinated and closely-linked biennial work plan between HEP and CEPIS, but with a clearer delineation of responsibilities. CEPIS staff, while working within the HEP Division framework, should be allowed sufficient technical independence so as to make its mark as a regional Center more effectively. However, whichever model is adopted, respondents considered that HEP and CEPIS staff need to develop a greater understanding of each other's roles, functions, and responsibilities.

Budgets allocated to staff are too small to enable them to develop long-term proactive plans for the Region.

3.32 There was consensus among those staff members interviewed that CEPIS needed to become more proactive. However, we feel that as each advisor is only allocated \$10,000 per biennium for proactive management of their respective programs, in reality there is little they can initiate or achieve.

3.33 It appears that the major factor contributing to the lack of a proactive stance of the Center is that the staff are required to spend much of their time responding to “emergencies” and urgent requests from clients (PAHO country offices, Peruvian government agencies, donors, NGOs, and so forth). This situation engages the Center’s staff and financial resources in reactive work most of the time. This concern was echoed by all staff interviewed, and could be an explanation of the trend in the internal distribution of funds.

3.34 The Biennial Program Budgets of the last three biennia support this concern, showing funds programmed in the “Management and Coordination” project in each biennium to range between 60 per cent – 75 per cent. Only 25 per cent – 40 per cent of regular budget funds were programmed in the specific technical cooperation projects in any given biennium. This trend suggests an over-centralization of internal controls regarding the funding of projects. The Center Director’s position is that a large part of the budget is retained for “investment projects”, and that the reactive work of the staff was also funded from this reserve fund. He confirmed the statement about the programming of \$10,000 per staff in the BPB, and said that this was strictly for proactive work.

CEPIS has successfully developed a range of cost recovery measures.

3.35 CEPIS has sought to recover costs in three areas: the development of extra-budgetary projects, the sale of laboratory services, and the Virtual Library. CEPIS has an officer who is responsible for project development targeted at extra-budgetary resources. In this area, staff are fully aware of the full cost recovery approach, and incorporate support costs in project proposals wherever possible. By doing so, there will be less demand on the regular budget to support this work and projects should obtain a degree of self-sufficiency.

3.36 The second area of cost recovery is in the laboratory, which generates a significant amount of income from its services. The laboratory has a full cost recovery system in place, as all services are charged to clients. This is essential, since all laboratory personnel, with the exception of the manager and her assistant, are funded from funds generated by the laboratory’s various activities. If the services provided by laboratory personnel are not charged to its clients, the laboratory will not be able to pay for its personnel and will not be able to continue to operate.

3.37 The share of funding generated by CEPIS from project services, and in particular services of the laboratory, has increased dramatically in the past three biennia. In 1994-1995, expenditure from these

sources reached \$221,000. This represented a 4.5 per cent share of total expenditure in that biennium. In 2000-2001 biennium, as of 26 October 2001, expenditure from service-generated income projects totaled \$994,097, an increase of 350 per cent, and contributed to a 12 per cent share of the total expenditure (refer to Annex II – “PI Income”). The laboratory is self-sufficient in terms of funding, and it is expected that it will continue to contribute significantly in the generation of funding for the Center.

3.38 The third area is the Virtual Library for Health and Environment (BVSA). The BVSA also provides services, but it has not been as successful as the laboratory in generating income. The Virtual Library has some fee-generating services and products, but it has difficulty in collecting service fees. It appears that paying clients are hard to come by; most want the information for free and, therefore, little income is generated through this channel. CEPIS is examining the possibility of developing a form of information packet, a quality document for private consumption for which companies would be willing to pay. If successful, this would allow the Virtual Library to recover some costs and contribute toward the generation of income for the Center.

Although CEPIS’ regular budget funding is expected to remain fairly stable, funding from other sources is likely to be less predictable and CEPIS will need to do even more to diversify funding sources.

3.39 PAHO’s regular budget for CEPIS is some 62 per cent of the 2000-2001 total budget, down from about 75 per cent in 1994-1995. This is not due to a decrease in absolute funding; rather it is a result of an increase in share of the total budget from both extra-budgetary sources and cost recovery work. Although the regular budget element has grown in recent years, the share of funding contributed by the other two sources doubled during this period, increasing in absolute terms by 112 per cent and 350 per cent respectively. Annex II shows the level of expenditure generated from these funding sources since 1990.

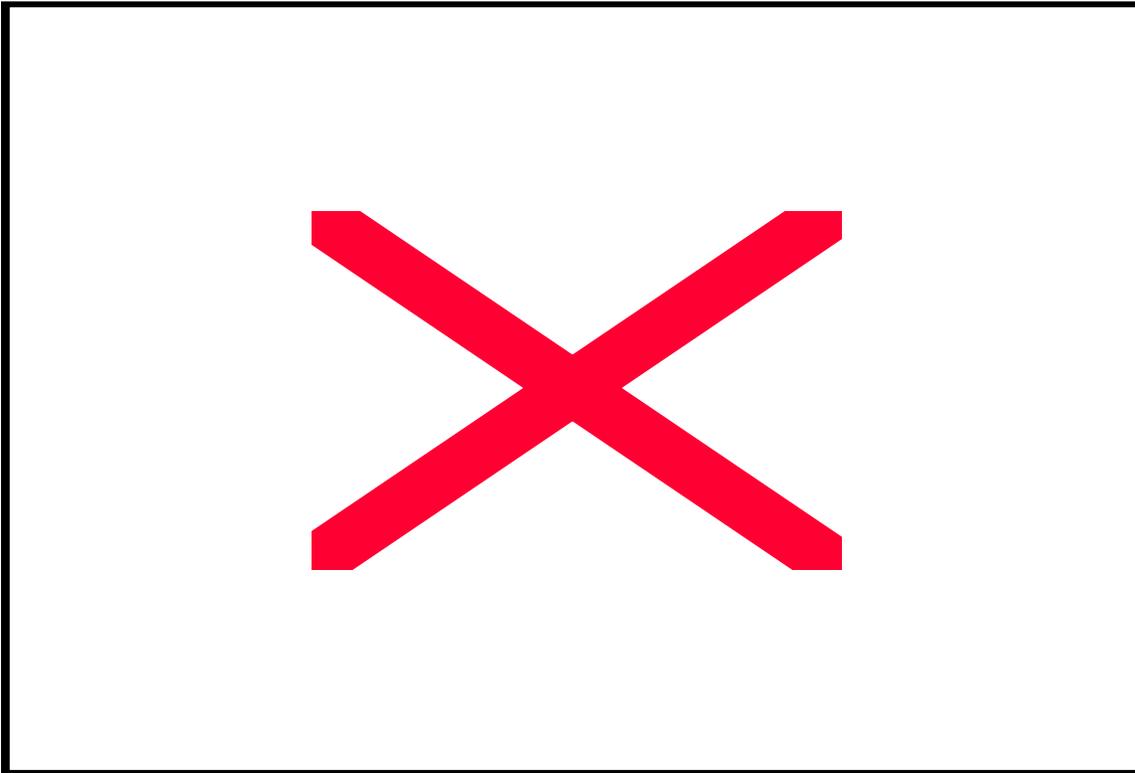
3.40 The regular budget funding level, including staff and non-staff costs, increased from about \$4 million in 1996-97 to about \$5 million in 1998-1999. This was primarily due to the ECO merger along with other discretionary funding authorized by the Director of PAHO. The approved budget for 2002-2003 is \$5.47 million. Regular budget funding continues to be both the largest source of funds and the most reliable, as it is tied to quota contributions from all PAHO Member States. The regular budget funds most fixed personnel costs along with about \$1.5 million in non-post activities. The regular budget is expected to remain somewhere in the vicinity of \$5 million over the foreseeable future, with possible slight nominal adjustments due to expected cuts from WHO for the 2004-2005 biennium.

3.41 The Government of Peru contributes to CEPIS' budget by providing rent -free facilities and through an annual grant. The cash contribution from the Government of Peru, according to legal documents, was originally intended to meet one half of the Center's operating expenses, or about \$380,000 per year. It was set out initially to be 14 per cent of the PAHO/WHO regular budget for CEPIS in any given biennium. However, the actual contribution received in the last three biennia has been in the order of eight per cent of the PAHO/WHO regular budget, or about one half of the committed amount.

3.42 In 2001, the Ministry of Health of Peru received a cut of 12 per cent in its own budget. The PAHO/WHO Representative in Peru was informed that a 19 per cent budget cut was expected for 2002. Consequently, the share of funding CEPIS received for 2001 from the Government of Peru decreased from an expected amount of \$350,000 to approximately \$250,000, and the same was expected for 2002. This results in a biennial reduction of \$200,000 or about 28 per cent less than the government's current commitment level. It is unlikely in the immediate future that the Government of Peru will be able to restore support for CEPIS to previous levels and the Center will need to absorb this reduction within the rest of its program and budget.

3.43 Although this is not good, this particular funding source represents only about five per cent of CEPIS' total budget. A 28 per cent reduction in that share, although not desirable, will not impact on CEPIS nearly as much as a significant drop in donor funding, which currently accounts for about 26 per cent of CEPIS' resources, or a drop in the income-generating activity which currently makes up about 12 per cent of the total share.

3.44 The primary source of donor funds is the German Technical Cooperation Agency (GTZ), which has funded projects in CEPIS for many years. CEPIS has entered into agreements with other donors, such as with the Governments of Canada and Switzerland, and agencies including the US Environment Protection Agency, UNICEF, and UNITAR; however, the amounts involved in these projects have been relatively small. For example, the Basic Sanitation area in the CEPIS program is fully funded from extra-budgetary project funds, primarily from a Swiss grant of US\$240,000 due to expire in February 2003. Negotiations are underway to begin a new phase of this project in mid-2002. However, continued financing in this area is not yet ensured. The major concern in the area of donor funding is the ability of CEPIS to attract external funding from a variety of sources, thus lessening CEPIS dependency on GTZ funding.



Source: PAHO Survey

The CEPIS laboratory sells its services in a reduced number of countries.

45 The CEPIS laboratory's success story is promising. The laboratory has evolved from functions limited to research of water treatment in 1970, to a full-blown accredited reference laboratory in 2001. Income generation has grown significantly during this period. In 1990-1991, activity from laboratory services totaled \$170,000. In 2000-2001 the laboratory generated over \$750,000 in income (see Annex III). A key driver of this growth has been CEPIS' ability to expand the quality and range of services provided by the laboratory, towards areas of technical cooperation and away from the more "retail" side of processing environmental samples. The laboratory currently generates most of its income from accreditation and advisory services as a reference laboratory. And with its recent accreditation status with the Canadian Association of Environmental Accredited Laboratories (CAEAL), the current trend in income generation is expected to continue. The sale of laboratory services, however, is heavily concentrated in Peru and a few countries (Figure 7), and there may be scope for wider marketing of these services, particularly in terms of accreditation and technical cooperation, at least in the Andean Region.

3.46 The CEPIS planning, programming, and budgeting process must find a way to distribute better available Regular Budget resources. The sum of \$10,000 is not sufficient for any professional to devise a two-year work plan that is both proactive and impacting.

3.47 Overall, CEPIS can reasonably expect a fairly consistent level of PAHO Regular Budget, and a promising performance of income generation from the laboratory that may become dependable. The level of donor funds, however, is more difficult to control. And although the current level of \$2.9 million, or 26 per cent of the total budget is the highest ever, the future of this source is not certain.

3.48 It is vital, therefore, that CEPIS continues to maintain donor interest by keeping donors aware of its successes – particularly in areas which relate to the donors own poverty alleviation among the indigenous populations, and people living in rural, and urban-marginalized areas.

3.49 CEPIS should develop, therefore, a resource mobilization strategy as well as a permanent internal capacity for resource mobilization that would originate and coordinate efforts on behalf of CEPIS with the support of the HEP Division and PAHO's Office of External Relations. Developing this capacity will require additional funding either through a re-direction of CEPIS' resources or additional funding approved by the Director of PAHO.

Recommendations

3.50 CEPIS has many of the elements in place of a well managed organization and has proved effective in seeking funds from a wide variety of sources. Over the medium term, core funding for CEPIS from PAHO funds is unlikely to grow. Yet the demand and need for CEPIS' services continues to expand. CEPIS has worked hard to seek extrabudgetary funds and has been by and large successful in this endeavor. Grants from other governmental and international organizations accounted for 19 per cent of the budgeted expenditure in 2000-01, and the Laboratory has proved particularly effective in picking up grants and selling its services. In the medium term these sources should keep CEPIS financially viable though there is a need to seek grants from a wider range of donors, and to market CEPIS' work more aggressively, especially the work with the indigenous rural poor and those living on the fringes of the urban centers. To this end, CEPIS needs to build up its marketing/grant seeking capabilities. The evaluation team recommends that:

- CEPIS should adopt a more formalized management structure with regular meetings, formal reviews of progress and records of decisions;
- CEPIS should develop a medium-term strategic plan showing key directions it wishes to pursue and supported by a detailed business plan and a risk management strategy;

- ❑ CEPIS should regularly produce exception reports which show which projects have been delayed or are running over budget and noting any remedial actions;
- ❑ CEPIS has developed guidance on project design but more consideration needs to be given to methods of achieving objectives, managing risks and communicating results;
- ❑ CEPIS should establish a more formal system for reviewing the quality of its products and activities, evaluating major projects and considering the results of such reviews;
- ❑ Staff development needs to be given a higher profile with all staff being set annual professional development targets;
- ❑ CEPIS needs to vigorously seek to diversify its sources of extra-budgetary funds; particularly by making potential funding bodies more aware of the impacts CEPIS' work has on alleviating poverty, for example among indigenous populations, and people living in rural or urban-marginalized areas;
- ❑ CEPIS' laboratory should continue emphasizing a wider marketing for its accreditation services beyond the current range of countries; and
- ❑ There should be a shift in the internal allocation of resources so that professional staff have increased resources for proactive work.

Part 4: Has the merger with ECO produced expected synergies?

4.1 This Part examines whether the merger between CEPIS and the Pan American Center for Human Ecology and Health (ECO) has produced expected synergies. In addition, this Part seeks to analyze whether the merger of resources from the former ECO Center into CEPIS had been effective, what were the characteristics of the implementation of the merger of resources, and to identify lessons learned.

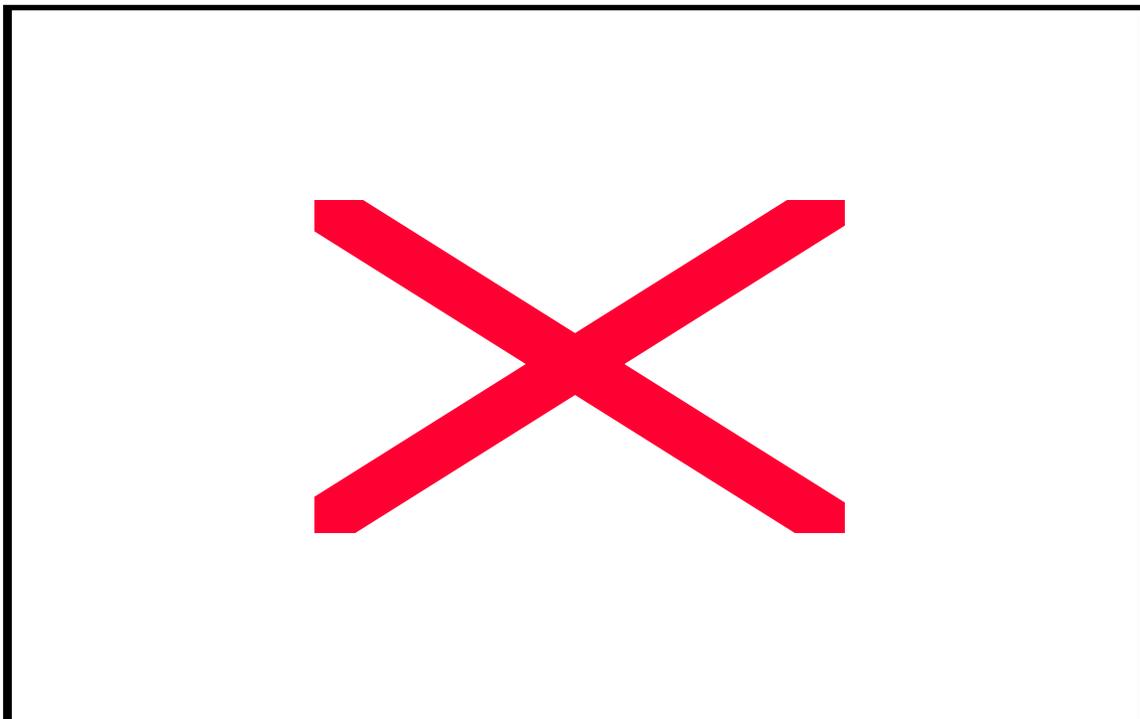
4.2 In September 1997, the Directing Council of PAHO officially endorsed a proposal, Analysis of the Program on Health and Environment (document CD40/23), to close the ECO Center in Mexico and transfer some staff and resources to CEPIS in Lima. The proposal stressed that this move would help ensure that PAHO, through its Health and Environment Directorate, would retain a leadership role in the Americas in relation to environmental risk prediction, identification, evaluation and control, "...as well as in activities aiming at the establishing or strengthening of institutional capacities for environmental health management." (point 4.4.3 of CD40/23). The expanded CEPIS would focus on the technological aspects of environmental epidemiology, environmental and clinical toxicology, and impact assessment, as well as the engineering and social dimensions of risk reduction and control. In approving the merger, the Directing Council asked the Director, among other things, to make appropriate modifications to CEPIS' program of work, with special

reference to training, particularly in the area of environmental epidemiology, in consultation with the Government of Peru.

4.3 ECO's library, office furniture and technical equipment were transferred to the National Center on Environmental Health (CENSA) in Mexico and the building returned to the Government of Mexico.

Opinions are divided on whether the merger was well implemented.

4.4 Opinion is sharply divided among respondents on whether the merger was well implemented (Figure 8) with large numbers of respondents uncertain. In open-ended responses many respondents commented that through the merger something was lost which has yet to be fully restored. Some Washington based managers, in particular, considered that CEPIS had yet to fully grasp the complexity of the work that ECO used to carry out in relation to environmental impacts on human health, and had not taken enough steps to close the knowledge, skills, and program gaps resulting from the merger. At the same time there is evidence in the work of CEPIS and the response of CEPIS staff that some progress is being made and that staff are developing new ways of working which, if properly supported and monitored, could result in future synergies and advances.



Of the 63 per cent of respondents who felt that they knew how the merger had been implemented, opinions were almost evenly divided about whether or not the merger had been implemented well.

4.5 Several respondents felt that the merger was done too quickly with too many questions unanswered and the mandate unclear. One respondent suggested that when the merger decision was taken the HEP Division lacked a comprehensive vision of its long-term future outside the traditional water, sanitation, and solid waste areas. In the future, before abolishing or creating a Center – or merging Centers -- there is a need for exercises in futures / scenarios / strategic planning, involving as many stakeholders as possible. A few respondents saw the merger primarily as a cost-cutting exercise during which adjustment problems would linger on for several years, and eventually the reshuffling would result in changes to the characteristics of both former components.

4.6 In February 1998, a few months after the official decision on the merger, PAHO commissioned a future-oriented report (not an evaluation) to establish priorities for the “new” CEPIS. The paper by Dr. Roberto Belmar, Prof. Leo Heller, and Mr. Roy Hickman, Report of a Special Advisory Group on Strategies and Priorities for the Future CEPIS Program, set forth a series of recommendations many of which were aimed at encouraging greater integration between the work of the old CEPIS and the former work of ECO (Annex IV).

4.7 The report of the Special Advisory Group pointed out that the disestablishment of ECO and the transfer of funds and professional staff to CEPIS provided a unique opportunity to examine the strategic directions in both former programs and to create a new strengthened CEPIS. It was stressed that the amalgamation of the two former Centers should not be viewed as simply strengthening CEPIS by augmentation of its resources. Since the merger CEPIS has re-examined and re-focused some of its programs. Building on the Pan American Network of Information in Health and Environment (REPIDISCA) and on the work of another PAHO Center, the Latin American and Caribbean Center for Information on the Health Sciences (BIREME), CEPIS has been developing a Virtual Library on Health and Environment, which includes some aspects of the work which was once undertaken by ECO.

4.8 Respondents to our survey were not always fully convinced of the merits of all the changes and considered that there had been a loss of expertise, for example in terms of chemical accidents and a decrease in PAHO's overall capability to assess the impact of the environment upon human health (particularly in the case of children, elderly, and women). As one PAHO/WHO Representative working in South America stated: "Clearly, there is a significant loss in terms of [PAHO's] presence in the thematic

areas in which ECO used to cooperate with this country, especially in the areas of epidemiology, risk assessment and environmental toxicology. ... There is a loss in terms of publication series in the areas that ECO used to work with, and in related research aspects as well. ... The original idea was to achieve the integration of the area of environmental engineering with a continuous, relevant assessment of environmental risks as they affect the health of the population. However, it has not been possible to transform that goal into reality; there is little evidence on the CEPIS planning and programming processes that the technical and financial resources are available or that the available resources are sufficient to achieve that goal. There exists clearly [within CEPIS] an area with a lower profile and development." (Quotation translated from the original in Spanish).

4.9 The Special Advisory Group had recognized that even after combining the resources of the two former Centers, the funding and number of professional staff available were insufficient for the new institution to engage directly in solving the many regional environmental health problems and it recommended that CEPIS adopt a catalytic role, not an operational role, in providing assistance to the countries of the Region. CEPIS is progressively working to shift the focus of its work. It has developed new portals in the Virtual Library in the areas of epidemiology, environmental impact assessment, child health and the environment and toxicology. It has created networks of institutions, particularly through the Regional Plan of Urban Air Quality and Health, and through RETOXLAC, the Network of Toxicology in Latin America and the Caribbean. In addition, through the 2002-2003 Biennial Program Budget, CEPIS is continuing to re-orient its activities in an attempt to give them a sharper, more strategic focus.

More needs to be done to work with governments to monitor environmental health risks and to keep the public informed about such risks.

4.10 Associated with this new catalytic role, there was an expectation that CEPIS would do more to advise and motivate national authorities, the academic community, non-government organizations and communities on the processes of assessing, prioritizing and controlling environmental risks in the Americas. In particular, there is a role for CEPIS to play in addressing the growing gap that separates the scientific description of risks and the public understanding of those risks. To do this involves CEPIS staff in moving beyond the traditional scientific and technical focus of the two environmental health Centers and developing new ways of communicating about risk through the mass media to the community, although a strong base in science and technology must be maintained to underpin these broader activities. While CEPIS provides wide ranging training programs across the region on environmental health risks, it has not developed a strategic plan to show what it intends to do in this field nor a strategy for getting clear messages to the general public.

4.11 The Special Advisory Group pointed out that the new CEPIS should focus, not only on existing environmental health problems of the Region, but play a role in scanning for future threats. In particular, it recommended that CEPIS should provide guidance to Member States on how to ensure that all major development projects incorporate an element of environmental health assessment into their planning. To implement this recommendation, CEPIS has made resources available by translating WHO documents into Spanish, has made a tutorial program available on the web-site and has revised a training course developed by ECO. CEPIS, however, could do more to monitor major development projects in the Region, to alert Member States of the need to carry out environmental health assessments and to disseminate good practices in this area.

4.12 Similarly, the Special Advisory Group considered that the new CEPIS should do more to increase awareness of the various policy tools available to assist countries in developing sustainable development plans that respect the need to protect the health of workers, communities, and individuals. CEPIS has taken important steps in this area. During 2000-2001, US\$664,480 (from the PAHO country offices and other CEPIS sources) was spent on these activities. For example, CEPIS invested \$136,000 in pilot demonstration projects on Primary Environmental Care in the border areas of Peru, Ecuador and Chile to help show the usefulness of these approaches for policy purposes. However, there is scope to do more to produce guides and teaching materials, and to make these materials widely accessible in the PAHO official languages.

Much has been done to generate new ways of working among staff from the former ECO and the old CEPIS.

4.13 CEPIS has recognized the need to bridge the communications gap that often exists between those in the life sciences and their colleagues educated and trained in the natural sciences and engineering. For example, risk assessments paradigms for assessing chemicals and micro-biological agents are different. CEPIS has provided in- service courses for staff that emphasizes risk communication and technology transfer and seeks to maintain a facility to interpret risk numbers, including the meaning of risk estimates and their uncertainty. CEPIS has also formed interdisciplinary project teams involving former ECO staff and the old CEPIS staff. Interviews with staff confirm the benefits of this approach and the sense of professional enrichment shared by participants.

4.14 The Special Advisory Group also recommended several other approaches to developing greater professional synergy in the CEPIS' approach to risk including establishing a group of professional staff

involved in epidemiology, toxicology, sanitary engineering, communication and social participation activities to systematically review advances in research and information in the field of health risk assessment and environmental risk control (with particular reference to water, air and soil) and to organize an annual workshop to gather together a small group of scientists and engineers for a week of intensive reflection and discussion "at the frontiers of environmental health science." Neither of these initiatives has been implemented through a lack of resources.

4.15 The apparent over-reliance on the Virtual Library for Health and Environment in the progression to the new CEPIS deserves some attention, since it would seem hard to build up the non-traditional areas at CEPIS in its progress toward a new Center with such heavy reliance upon one major approach. Not only there are a number of other approaches concerning environmental toxicology and epidemiology that are currently not being addressed or have a lower profile, but the shift to electronics could be perhaps overstated for this Region. As one Argentine respondent to our surveys noted, "The fact that CEPIS has a Web page does not justify the absence of printed materials, given the fact that not everyone [in Latin America] has access to the Internet."

4.16 The picture that emerges from the analysis of the CEPIS-ECO merger is one of a Center working to become the new CEPIS suggested by the 1998 Special Advisory Group. Serious efforts are being made in this direction, with renewed emphasis in the 2002-03 Biennial Program Budget. However, when looking at the totality of the process involving the closing of ECO, the reinforcing of CEPIS with ECO resources, and the four-year evolution toward a new CEPIS, many respondents from the PAHO country offices and Headquarters communicate a sense of loss for PAHO and the Region.

RECOMMENDATIONS:

4.17 The merger of two different technological cultures is not easy, even in private industry. We feel that the construction of a "new" CEPIS is still a work in progress which deserves the support of an external advisory body. Even with the best intentions, organizational inertia, and cultural pressures and attitudes can result in one technological group smothering or giving short shrift to another. The lack -- or perceived lack -- of financial and human resources, although extremely important, should not provide an additional justification for the status quo, while the institution moves forward waiting for the day in which sufficient resources become available to create the new CEPIS. The proposed external advisory body should also be able to help CEPIS in relation to other technical and policy issues identified in previous sections. The evaluation team recommends that:

- The strengthening of the process toward the creation of a “new,” more catalytic CEPIS recommended by the 1998 Special Advisory Group, should be fostered by the establishment of an Advisory Committee reporting to the HEP Division Director and through him/her to the Director, PAHO. This Advisory Committee would advise the HEP Division on technical and policy aspects concerning the continuing building of a “new” CEPIS reflecting the anticipated evolution of the health and environment field in the Americas. The Committee should meet at least once a year under a rotating chairmanship. The Director of PAHO would appoint its members upon the recommendation of the HEP Division, for limited, staggered, but potentially renewable terms. Care should be taken that at all times its membership should be balanced between veteran international professionals from the sanitary engineering field, and from the environmental epidemiology, toxicology, and human health risk assessment fields. The CEPIS Director would be an ex-officio member of the Committee. CEPIS staff should provide the Committee's secretariat support;
- CEPIS should seek innovative ways of helping the people of the Region develop a better understanding of environmental health risks; as a first step in the process CEPIS should develop a strategic plan to show what it intends doing and nurture links with key regional print and television journalists to ensure that environmental issues obtain a higher media profile;
- CEPIS should monitor major development projects in the Region, alert Member States of the need to carry out environmental health assessments and disseminate good practice guidelines;
- CEPIS should produce more guides and teaching materials to assist countries in developing sustainable development plans and make these materials widely accessible in the PAHO official languages; and
- CEPIS should fill any vacancies in areas related to environmental epidemiology, toxicology, and human health risk assessment as soon as feasible.

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HEALTH AND ENVIRONMENT: Evaluation of a Pan American Center

| | | ANNEX I | | | | | |
|---|------------------|------------------|------------------|----------------|------------------|------------------|------------------|
| CEPIS | | | | | | | |
| BIENNIUM 1996-1997 | | | | | | | |
| | | POSTS | | | NON-POSTS | | |
| PROJECT | TOTAL | TOTAL | REGULAR | EXTRABUDG. | TOTAL | REGULAR | EXTRABUDG. |
| 01 - Water and Sanitation | | | | | | | |
| Funds executed | 1,588,585 | 333,872 | 333,872 | - | 1,254,713 | 296,470 | 958,243 |
| 02 - Municipal Solid Waste | | | | | | | |
| Funds executed | 381,620 | 314,256 | 314,256 | - | 67,364 | 52,393 | 14,971 |
| 03 - Health in Housing | | | | | | | |
| Funds executed | 22,746 | 22,746 | 22,746 | - | - | - | - |
| 04 - Environmental Protection and Health | | | | | | | |
| Funds executed | 53,355 | 45,493 | 45,493 | - | 7,862 | 6,695 | 1,167 |
| 05 - Evaluation and Management of Environmental Risks to Health | | | | | | | |
| Funds executed | 825,652 | 399,309 | 399,309 | - | 426,343 | 63,931 | 362,412 |
| 06 - Worker's Health | | | | | | | |
| Funds executed | 97,304 | 97,304 | 97,304 | - | - | - | - |
| 07 - Integrated Health and Environmental Activities | | | | | | | |
| Funds executed | 2,992,438 | 1,421,512 | 1,124,927 | 296,585 | 1,570,926 | 1,201,250 | 369,676 |
| TOTAL FUNDS EXECUTED | 5,961,700 | 2,634,492 | 2,337,907 | 296,585 | 3,327,208 | 1,620,739 | 1,706,469 |
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HEALTH AND ENVIRONMENT: Evaluation of a Pan American Center

| CEPIS | | | | | | | |
|---|------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|
| BIENNIUM 1998-1999 | | | | | | | |
| PROJECT | TOTAL | POSTS | | | NON-POSTS | | |
| | | TOTAL | REGULAR | EXTRABUDG. | TOTAL | REGULAR | EXTRABUDG. |
| 01 - Drinking Water and Sanitation Funds executed | 2,394,684 | 550,109 | 550,109 | - | 1,844,575 | 251,200 | 1,593,375 |
| 02 - Solid Waste and Environmental Health in Urban and Rural Settings Funds executed | 467,299 | 281,827 | 281,827 | - | 185,472 | 122,382 | 63,090 |
| 03 -Inclusion of Health Aspects in Environmental Management Funds executed | 101,672 | 29,741 | 29,741 | - | 71,931 | 71,931 | - |
| 04 - Identification and Control of Environmental Risks to Health Funds executed | 598,854 | 552,583 | 552,583 | - | 46,271 | 46,271 | - |
| 05 - Evaluation of Risks and Promotion of Chemical Safety Funds executed | 1,134,267 | 502,687 | 502,687 | - | 631,580 | 19,338 | 612,242 |
| 06 - Worker's Health Funds executed | 30,791 | 29,741 | 29,741 | - | 1,050 | 1,050 | - |
| 07 - Management and Administration of CEPIS and its Divisions Funds executed | 3,119,667 | 1,512,487 | 1,342,863 | 169,624 | 1,607,180 | 1,014,507 | 592,673 |
| TOTAL FUNDS EXECUTED | 7,847,234 | 3,459,175 | 3,289,551 | 169,624 | 4,388,059 | 1,526,679 | 2,861,380 |
| g: ANNEX I bienioA2.xls | | | | | | | |

HEALTH AND ENVIRONMENT: Evaluation of a Pan American Center

| CEPIS | | | | | | | |
|--|--------------|--------------|----------------|------------------------|------------------|----------------|-------------------|
| BIENNIUM 2000-2001 | | | | | | | |
| PROJECT | TOTAL | POSTS | | | NON-POSTS | | |
| | | TOTAL | REGULAR | EXTRA BUDG. | TOTAL | REGULAR | EXTRABUDG. |
| 01- Water Supply and other Basic Sanitation Activities | | | | | | | |
| Funds programmed | 3,476,266 | 747,102 | 747,102 | - | 2,729,164 | 501,240 | 2,227,924 |
| 02 - Worker's Health | | | | | | | |
| Funds programmed | 114,599 | 102,599 | 102,599 | - | 12,000 | 7,000 | 5,000 |
| 03 - Environmental Risks (to Health) and Chemical Safety | | | | | | | |
| Funds programmed | 1,716,284 | 1,048,841 | 1,048,841 | - | 667,443 | 164,363 | 503,080 |
| 04 - Inclusion of Health Aspects in Environmental Management | | | | | | | |
| Funds programmed | 23,073 | 19,759 | 19,759 | - | 3,314 | - | 3,314 |
| 05 - Internal Management | | | | | | | |
| Funds programmed | 4,760,101 | 1,581,432 | 1,305,372 | 276,060 | 3,178,669 | 869,164 | 2,309,505 |
| TOTAL FUNDS PROGRAMMED | 10,090,323 | 3,499,733 | 3,223,673 | 276,060 | 6,590,590 | 1,541,767 | 5,048,823 |

NOTE : The column Posts/Regular does not include vacant posts.

HEALTH AND ENVIRONMENT: Evaluation of a Pan American Center

| CEPIS | | | | | | | |
|---|------------------|------------------|------------------|--------------------|------------------|------------------|--------------------|
| BIENNIUM 2002-2003 | | | | | | | |
| PROJECT | TOTAL | POSTS | | | NON-POSTS | | |
| | | TOTAL | REGULAR | EXTRA BUDG. | TOTAL | REGULAR | EXTRABUD G. |
| 01-Internal Management of CEPIS Funds programmed | 3,751,680 | 1,658,280 | 1,418,280 | 240,000 | 2,093,400 | 824,400 | 1,269,000 |
| 02 - Drinking Water and Sanitation Funds programmed | 1,282,262 | 238,162 | 238,162 | - | 1,044,100 | 162,800 | 881,300 |
| 03 - Urban Solid Waste and Waste from Health Facilities Funds programmed | 433,624 | 264,624 | 264,624 | - | 169,000 | 16,400 | 152,600 |
| 04 - Healthy Housing and Environments Funds programmed | 390,699 | 211,699 | 211,699 | - | 179,000 | 38,000 | 141,000 |
| 05 - Environmental Risks to Health Funds programmed | 412,624 | 264,624 | 264,624 | - | 148,000 | 28,000 | 120,000 |
| 06 - Environmental Protection and Health Funds programmed | 442,011 | 344,011 | 344,011 | - | 98,000 | 10,000 | 88,000 |
| 07 - Information for Health and the Environmental Funds programmed | 443,664 | 248,664 | 248,664 | - | 195,000 | 40,000 | 155,000 |
| 08 - Quality of Laboratory Analysis of Environmental Samples Funds programmed | 1,345,752 | 322,752 | 322,752 | - | 1,023,000 | 7,000 | 1,016,000 |
| 09 - Appropriate Basic Sanitation Technology Funds programmed | 281,000 | - | - | - | 281,000 | - | 281,000 |
| TOTAL FUNDS PROGRAMMED | 8,783,316 | 3,552,816 | 3,312,816 | 240,000 | 5,230,500 | 1,126,600 | 4,103,900 |

NOTE : The column Posts/Regular does not include vacant posts or the posts of Mr. H. Salas and Dr. I Romieu.

| | | ANNEX II | | | | | |
|------------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|
| CEPIS expenditure history | | | | | | | |
| | | Expenses | | | | | |
| | | 1990-91 | 1992-93 | 1994-95 | 1996-97 | 1998-99 | 2000-01 |
| PAHO Extrabudgetary | | | | | | | |
| PG | | 792,630 | 678,419 | 596,762 | 1,220,909 | 2,052,100 | 1,547,256 |
| PI (Income) | | 169,503 | 218,974 | 221,397 | 551,714 | 886,417 | 994,097 |
| PX | | 38,154 | 15,947 | 6,200 | 0 | 0 | 200,000 |
| PW | | 0 | 0 | 31,724 | 0 | 0 | 0 |
| WHO Extrabudgetary | | 9,051 | 226 | 39,313 | 30,000 | 36,734 | 0 |
| PAHO/WHO Regular | | 2,441,217 | 3,220,045 | 3,654,345 | 4,060,217 | 5,075,719 | 4,959,997 |
| CEP-CWS-010/PG | | 245,981 | 336,139 | 314,889 | 341,716 | 393,386 | 349,148 |
| | | 1990-1991 | 1992-1993 | 1994-1995 | 1996-1997 | 1998-1999 | 2000-2001 |
| PAHO/WHO REGULAR | | 2,441,217 | 3,220,045 | 3,654,345 | 4,060,217 | 5,075,719 | 4,959,997 |
| EXTRABUDGETARY | | 1,085,816 | 1,030,731 | 988,888 | 1,592,625 | 2,482,220 | 2,096,404 |
| INCOME FROM PROJECT SERVICES | | 169,503 | 218,974 | 221,397 | 551,714 | 886,417 | 994,097 |
| TOTAL | | 3,696,536 | 4,469,750 | 4,864,630 | 6,204,556 | 8,444,356 | 8,050,498 |
| g:\centers\cepis-annexII | | | | | | | |

PAHO EXTRABUDGETARY (PG)

| | 1990-91 | 1992-93 | 1994-95 | 1996-97 | 1998-99 |
|----------------------------|---------|---------|---------|-----------|-----------|
| PAHO Extrabudgetary | | | | | |
| Gov of Canada | 0 | 24,161 | 17,126 | 53,444 | 0 |
| GTZ | 388,887 | 287,776 | 193,777 | 237,882 | 420,374 |
| Gov of Peru | 371,357 | 359,701 | 370,855 | 836,678 | 1,364,134 |
| IBRD | 29,686 | 0 | 0 | 0 | 0 |
| IDRC | 2,700 | 6,781 | 0 | 0 | 0 |
| ODRA/OFASA | 0 | 0 | 15,004 | 0 | 0 |
| Gov of Spain | 0 | 0 | 0 | 3,562 | 770 |
| Gov of Switzerland | 0 | 0 | 0 | 4,135 | 130,557 |
| US/EPA | 0 | 0 | 0 | 46,587 | 102,218 |
| US/NASA | 0 | 0 | 0 | 38,621 | 0 |
| UNICEF | 0 | 0 | 0 | 0 | 15,667 |
| UNITAR | 0 | 0 | 0 | 0 | 18,380 |
| | 792,630 | 678,419 | 596,762 | 1,220,909 | 2,052,100 |
| Personnel | 428,150 | 418,127 | 430,786 | 652,180 | 943,597 |
| Travel | 29,877 | 14,033 | 6,421 | 12,167 | 52,531 |
| GOE | 77,943 | 93,016 | 52,280 | 81,624 | 155,158 |
| Supply and Equipment | 145,922 | 78,476 | 43,702 | 346,283 | 510,958 |
| Courses and Seminars | 48,687 | 41,791 | 45,527 | 39,850 | 207,578 |
| Grants | 0 | 0 | 0 | 22,182 | 53,288 |
| PSC | 62,051 | 32,976 | 18,046 | 66,623 | 128,990 |
| | 792,630 | 678,419 | 596,762 | 1,220,909 | 2,052,100 |

PAHO/WHO Regular Funds

| | 1990-91 | 1992-93 | 1994-95 | 1996-97 | 1998-99 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Personnel | 2,076,487 | 2,908,396 | 3,342,767 | 3,198,345 | 4,042,594 |
| Travel | 36,969 | 52,806 | 60,347 | 30,170 | 76,778 |
| Hospitality | 1,294 | 2,200 | 2,000 | 1,999 | 1,974 |
| GOE | 216,260 | 152,328 | 166,230 | 158,870 | 365,769 |
| Supply and Equipment | 110,207 | 101,965 | 56,412 | 360,677 | 185,364 |
| Courses and Seminars | 0 | 2,350 | 26,589 | 10,156 | 103,240 |
| Grants | 0 | 0 | 0 | 300,000 | 300,000 |
| | 2,441,217 | 3,220,045 | 3,654,345 | 4,060,217 | 5,075,719 |

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CONTRIBUTION OF THE PERUVIAN GOVERNMENT
Period 1996 - 2001

| Year | Funds Requested Dollars | Funds Approved by the Peruvian Government Sols | Funds Received | |
|------|-------------------------|--|----------------|-----------------------|
| | | | Sols | Equivalent in Dollars |
| 1996 | 254,590 | 645,000 | 545,000 | 234,049 |
| 1997 | 254,590 | 636,475 | 636,475 | 242,845 |
| 1998 | 272,517 | 790,299 | 790,299 | 275,200 |
| 1999 | 379,204 | 1,156,572 | 1,156,572 | 345,011 |
| 2000 | 383,159 | 1,383,204 | 1,109,206 | 319,316 |
| 2001 | 383,159 | 200,000 * | 401,000 | 112,011 |

* See attached copy of memo CEPIS-2004-FIN-01 of 21 March 2001.

ANNEX III

**TABLE SHOWING INCOME FROM SERVICES/SALES
FUNDS ALLOCATED FOR EXTRABUGETARY PROJECTS
BIENNIUM-2000-2001**

QUALITY CONTROL AND ANALYTICAL SERVICES AREA

| DESCRIPTION | TOTAL 2000-2001 |
|--|--------------------|
| INCOME FROM SERVICES/SALES | 754,173 |
| FUNDS FOR EXTRABUDGETARY PROJECTS | 843,335 |
| Reference laboratory | 48,000 |
| Training | 307,279 |
| Assistance in evaluating equipment needs and Procurement of equipment for laboratories in Nicaragua, El Salvador, and Honduras | 488,056 |
| | 2,440,843 |

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ANNEX IV

RECOMMENDATIONS OF THE 1998 CEPIS SPECIAL ADVISORY GROUP

On 28 February 1998 the Special Advisory Group (SAG) including Dr. Roberto Belmar, Prof. Leo Heller, and Mr. Roy Hickman in their "Report of a Special Advisory Group on Strategies and Priorities for the Future CEPIS Program" delivered a series of recommendations concerning a "new CEPIS." These are:

1. The disestablishment of ECO and the transfer of funds and professional staff to CEPIS provide a unique opportunity to examine the programs and strategic directions in both former programs and to create a new strengthened CEPIS. The amalgamation of the two former Centers should not be viewed as simply strengthening CEPIS by augmentation of its resources. Rather, the Director and staff of the Center should view this opportunity as a challenge to create a new institution to serve better the program needs of the Division of Health and Environment as a whole.
2. Even after combining the resources of the two former Centers, the funding and number of professional staff available are insufficient for the new institution to engage directly in solving the many health problems related to the environment in the Region. It is recommended that its role be a catalytic role, not an operational role in providing assistance to the countries of the Region.
3. This catalytic role must include advising and motivating national authorities, the academic community, NGOs and communities in the process of assessing, prioritizing and controlling environmental risks in the Americas. This involves activities beyond the traditional scientific and technical focus of the two Centers in the past; nevertheless a strong base in science and technology must be maintained to underpin these broader activities
4. Progress will be limited unless significant additional resources can be made available to the Center. The nucleus of expertise available in the new Center cannot be used to the fullest advantage with present resources. It is recommended that the Director, HEP, seek additional budget to further support the seminal work of the Center.
5. The new CEPIS must focus not only on existing environmental health problems of the Region. In redefining the CEPIS program, the opportunity should be used to make the program more proactive than has been the case in the past. There is a particular need to ensure that major development projects incorporate an element of environmental health assessment into their planning. The new CEPIS can and should provide training and guidance in the Region in this discipline.
6. The new CEPIS needs to increase awareness of the various policy tools available to assist countries in developing sustainable development plans that respect the need to protect the health of workers, communities, and individuals.

7. To facilitate the catalytic role for CEPIS, the professional staff should receive continuing development and training that emphasizes risk communication and technology transfer. The new CEPIS will need to maintain a facility to interpret risk numbers, including the meaning of risk estimates and their uncertainty.
8. The WHO Collaborating Center concept ought to be an important element of [CEPIS' networks], but it is not presently fulfilling this role. The Director of CEPIS should explore alternative mechanisms of institutional collaboration. In particular, collaboration (i.e., working together and making contributions for the common cause) must be the criterion for recognition, rather than prestige in a particular field of expertise.
9. In its catalytic role, staff of the new CEPIS may need to play the role of team leader on occasion, but this should not be their overriding goal. Rather, they should play the role of coach in stimulating the building of teams and networks to tackle the environmental health problems of the Region.
10. In the short- to medium-term, the CEPIS laboratory will continue to serve as a reference laboratory for the Region with respect to environmental monitoring programs. However, as high quality laboratories are developed elsewhere in the Region, consideration should be given to transfer of this function. To maintain this role in the longer term will inevitably result in the need for significant investment in laboratory equipment and in staff development and training.
11. It is strongly recommended that a workshop for the professional staff and other key personnel be convened at an early date to communicate the recommendations of this consultation to them and involve them in comment and discussion of them.

In addition, the Special Advisory Group made a series of suggestions:

- i. The new CEPIS will need to pay attention to the gap that separates the unfolding scientific description of risks and the public understanding of those risks. (p.6)
- ii. Within CEPIS itself there will also be a need to bridge the communications gap that often exists between those in the life science, their colleagues educated and trained in the natural sciences and engineering. For example, risk assessments paradigms for assessing chemicals and microbiological agents are different. (p.6)
- iii. Two areas that require strengthening are in risk communication and the health impact assessment component for future major development projects. (p.7)
- iv. Establish a group of professional staff involved in epidemiology, toxicology, sanitary engineering, communication and social participation activities to systematically review advances in research and information in the field of health risk assessment and environmental risk control (with particular reference to water, air and soil). The library [should produce] summaries, possibly on a monthly basis, of the most relevant material identified for this group of experts. These could be made widely available through REPIDISCA. (pp.8-9)
- v. Organize an annual workshop to gather together a small group of scientists and engineers for a week of intensive reflection and discussion "at the frontiers of environmental health science." (p.9)