Promoting Health As a Sustainable State

Part 2

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The growth of the human population is rooted in a mortality decline -- experienced in various degrees and at different times by virtually all societies in the world. This is, indeed, a magnificent achievement for all the people affected, arising from a variety of socio-cultural, economic, biological and medical achievements discussed in part one of this paper (M&GS 1995:162-175). Yet the sustainability of such an achievement is sadly questionable. For the sake of equity, quality of life, and environmental sustainability, the world population should stabilize as soon as possible. This is true even if population growth is not "only a problem" nor "the only problem" to cause social inequities and environmental degradation. Indeed, political and technological constraints may be even more important culprits. In the spirit of "social epidemiology" the author argues that the sustainability of current health achievements should be a concern of the medical profession. In part two of the paper, some specific indication for action toward this aim (primary environmental care) is provided. [M&GS 1995:227-234]

Health as a Sustainable State

Health as a sustainable state -- a term introduced by Professor Maurice King in 1990 -- is concerned with present and future well being [1]. It deals both with environmental influences on human life and health and with human influences on the environment. On the one hand, our surroundings should not harm us and should provide for all our necessities of life. On the other, people should be caretakers and not destroyers of -- or pathogenic parasites on -- the planet. From this perspective, public health becomes "intergenerational"; its sphere of interest and action enlarges to include the future sustainability of life, in quantity and quality.

As briefly discussed in part one of this paper, the demographic transition is a time of great opportunity and risk. The decrease in mortality signals an important improvement in health status, but if fertility remains too high for too long, the expanding population (and the expanding affluence) can end up exploiting the natural resources beyond their capacity to regenerate themselves.[1] Socio-economic disruptions and health disasters are

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1. Today other factors may play a more important role than population pressure in damaging the environment. Yet, all these factors can likely be dealt with more rapidly than population growth. As stressed by Paul Ehrlich "..if a demographic miracle can be pulled off in India over the next 35 years and their fertility can fall from 4.2 to 2.2, the Indian population will still

bound to ensue, since in a severely deteriorated environment people will again die early, in large numbers, and often in catastrophic situations.

This depressing scenario can be avoided only if we exit rapidly from the demographic transition, i.e. if the birth rate decreases rapidly. But how? Many health professionals trust that a strong and unequivocal decrease in child mortality is a sufficient condition (the "child survival hypothesis" described in part one). Some, however, dismiss this assertion, saying that it rests on thin empirical evidence [3].

To date, the health professional who has most forcefully spoken about "health as a sustainable state" is King. In a dense and controversial article, King argued that the possibility of a "demographic trap" shakes the ethical foundations of the health profession [1]. He asks:

> Are we justified in doing today's good [e.g. reduction of child mortality by large scale selective interventions] if this may lead to tomorrow's disaster [demographic and ecological catastrophes]? In particular, are we justified in promoting [child survival] interventions even in the cases in which they do not respond to the priorities expressed by the concerned populations?

King suggests that the WHO strategy for "Health for All by the Year 2000" be redesigned and renamed "Health in a Sustainable Ecosystem by the Year 2100." Health programmes in poor, high-fertility countries need to emphasize family planning. In these countries, reducing child mortality (for instance via large-scale oral rehydration campaigns) should never be promoted alone, without complementary measures to assure the sustainability of the human lives that will be saved.[2]

King's proposal generated heated debates among health professionals. Not many are ready to shift the focus of their work, and for a variety of reasons. Many stress political motivations (a strong promotion of family planning among the poor would shift on that camp the "guilt" and "responsibility" for environmental degradation, which rather belong to the ones who keep producing luxury goods and weapons with polluting and wasteful technologies). Others emphasize that the availability of means of family planning is only one -- and not the most important -- of the many conditions that support a decrease in fertility: the key changes in policy are not in the hands of health professionals. Still others simply feel that their first ethical responsibility as health professionals is to those who are suffering and dying now. Someone else, in this view, should think about tomorrow.

Health professionals should be concerned about health as a sustainable state, and therefore care both about what can be done to alleviate the problems of today and to prevent the problems of tomorrow. No matter who is "guilty," local imbalances between people and resources should be avoided for reasons of preventive care and equity, since some people will suffer from them and -- likely -- they will be the ones already less healthy and fortunate today. No matter what other issues need to be solved, any progress in social welfare can be overwhelmed by unending population growth. While sharing King's worry and sense of urgency, the author wishes to modify somewhat his prescription: decreasing fertility is necessary, but not sufficient.

To make the point more concrete, let us consider again the indigenous communities mentioned in the premise of this paper (those living in the Amazon, in rapid demographic growth, and facing difficult socio-cultural adjustments and local environmental stress) and ask ourselves: What can health professionals do for them? Obviously, health care and family planning services need to be made widely accessible to all the people in need in those communities. But that is not enough to assure their health, today and tomorrow. The problems have to be tackled at the roots, and these roots, first of all, must be understood.

Health professionals can begin by promoting a participatory reflection in the style of social epidemiology (see part one). What health problems do people have? What are the personal, family, social, and ecological causes of their problems? Why do families have many children? Do they understand it to be in their best interest? What are their alternatives? How do they perceive their environment? Are they having problems now or expecting some in the future? What do they need, as individuals, families and as a community? What can individuals, families, the community, and the health services

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continue to grow until almost the end of the next century. When it stops growing, there will be two billion Indians, that is as many people in India as there were on the entire planet at the time in which I was born" [2]. Too many people can rapidly nullify any gain achieved in other areas (improved technology, more equitable distribution of resources, regulation of the market, etc.).

2. King also stresses that while poor countries are drastically reducing their birth rate, rich and industrialized countries must drastically reduce their excessive consumption.

do to meet those needs? A constructive, communal reflection can clarify local problems, identify local resources, and outline possible solutions.

Special attention must be paid to women. For instance, questions such as the ones mentioned above can be explored from the particular perspective of women, and with reference to gender-specific roles and activities. In many poor countries, women do most of the work, are the first environmental caretakers and have the key interests in reproduction. Still, they are among the least heard, least supported, and least powerful groups. Expanding the role of women, raising their status, providing them with full access to education, training, employment, health and family planning services, and legal rights are excellent investments to decrease fertility [4,5,6] and protect local environments[3] -- besides improving society at large.

Incentives and support should also be provided to communities willing to manage their local environments in a sustainable way and to solve their local environmental problems. In a strict sense, such problems can be defined as instances of environmental degradation and pollution limited to specific geographical contexts and negatively felt by local communities. Typical examples include the lack of sufficient and safe water for a village, the deforestation and degradation of topsoil in a watershed or the inappropriate housing and disposal of waste in an urban settlement. These problems have clear health impacts and are, themselves, a cause of poverty. They are also usually dependent on the extent of local power and/or capacity to take action (for instance, at their roots may be lack of access and secure tenure to land or housing, inequitable distribution of water rights, social oppression of women or minorities, poor knowledge of available resources, use of inefficient technologies, lack of effective governmental services, etc.). In a comprehensive sense, in fact, local environmental problems require descriptions -- and solutions -- in political, economic, and socio-cultural terms as well. Solving such problems and preventing them in the future, while producing enough to satisfy the needs of people today, is what sustainable environmental management is all about. This is the main aim and concern of primary environmental care.

Primary Environmental Care

The primary environmental care approach attempts to synthesize lessons learned in caring for local environments and achieving context specific solutions to local problems. Many people and organizations -- from both developing and industrialized countries -- have contributed to this synthesis. Some were concerned about improving the quality of life of their own families and communities by making optimal use of scarce resources. Some worked in participatory projects in urban and rural areas (e.g. in water and sanitation, forestry, housing, appropriate technology, and income-generation schemes). Others had a background in primary health care, occupational health, or integrated rural development. Still others worked with aid agencies or local and international NGOs involved with environment, development, and human rights issues. The wisdom and skills these people acquired from experience -- from their daily practice of methods and tools; their tribulations with conflicts, obstacles, and failures; and their excitement resulting from catalyzed energy, solved problems, and satisfied communities -- contributed to a consensus on good aims and ways to strive for them. To give visibility, legitimacy, incentive, and impulse to such a consensus, a "name package" was found: "primary environmental care" (PEC)[4]

What are the key lessons embodied in the PEC approach? These are a few:

* Local environmental problems today severely affect an immense number of people and ecosystems. The current attention given to global problems (stratospheric ozone depletion, global warming, etc.) should not detract energy and efforts from local problems, which are many, messy, and difficult to define, but whose cumulative impact on health, quality of life, local economies, and ecological survival is immense.

* Local environmental problems cannot be approached in mere ecological terms nor ascribed to generic culprits such as "population growth" or "lack of investment capital." Rather, these problems are entangled in a myriad of local socio-cultural, economic, and political factors that -- in their uniqueness and complexity -- must be understood before the problems can be solved.

3. See for instance [7,8,9].

4. For a detailed description of the approach, see [10,11,12, 13,14,15] and, especially [16], which illustrates a variety of cases of "PEC" in practice. See also the forthcoming proceedings of the international symposium "In Local Hands," which was organized by the International Institute for Environment and Development (IIED) in Brighton in June 1994.

* Local environmental problems cannot be solved even by the most intelligent blueprint plans concocted in far away offices. Local people themselves need to be the architects and engineers of the appropriate solutions. The way of managing the local environment, producing for the necessities of life, and sharing the benefits of that production is at the heart of a local culture (and of what some refer to as "development") and should never be entrusted to external planners alone.

* Appropriate local solutions are best achieved via the participatory assessment of problems and resources and the participatory discussion of options, in both of which local women -- who are usually the first to suffer the burdens of human reproduction and environmental damage should play a full and active role.

* Sound environmental management is effectively achieved when local communities find a compelling interest to work for it. In other words, when they recognize that a sustainable use of local resources can satisfy their future as well as their immediate needs (income, food, housing, health, etc.) and improve their life.

* For this to happen, most communities need strong internal organizing and several forms of external support. Among the "conditions fostering success in PEC" (see Table 2) are political willingness to allow the process, and a range of legal, economic, and technical conditions that are rarely, if ever, entirely controlled by local residents.

These lessons apply to environmental issues as well as to family planning. For fertility to decrease effectively and sustainably, the peculiarity of each society and culture has to be respected; local people -- in particular women -- have to be involved in understanding and defining the problems at stake; they have to find for themselves a clear interest in planning their families; they have to have access to feasible and suitable means to do so; and their families and communities have to support them in their choices [17,18].

PEC has been condensed in a definition: "a process by which local communities -- with varying degrees of external support -- organize themselves and strengthen, enrich, and apply their means and capacities (know-how, technologies, and practices) for the care of their environment while simultaneously satisfying their needs" [10]. In simpler words, PEC is about communities organized to live as well as possible by managing their local resources in a sound and sustainable way.[5]

There are no fixed PEC recipes. The peculiarity of local issues and the very concept of community empowerment prevent any general answer to local problems. In fact, PEC is just a way of giving recognition to local cultures, to the knowledge and capacities of local communities, and to their right to define for themselves what "development" is. From this perspective, we can consider again the indigenous communities in the Amazon and the questions about their future asked in the premise of this paper.

What Can Health Professionals Do?

Health professionals interested in prevention rather than cure and ready to venture out of a strict definition of the health sector[6] have natural roles to play in primary environmental care. As "social epidemiologists," we can be advocates, catalyzers, facilitators, and providers of information, services, and support in areas that have little to do with the traditional provision of health services. We can begin by becoming aware and well

5. PEC is for the rich and the poor, for the South and the North, and it is not a route of escape from governmental responsibilities, since governments are essential partners and supporters of community-based action. In fact, PEC is the opposite of small-scale autarky. Any community can profit -- indeed it cannot do without -- a flow of information and know-how; political, legal, and technical support; credit; and careful integration of management practices among related ecological areas.

6. Primary health care professionals have been familiar with this for a long time: "Health cannot be attained by the health sector alone. In developing countries in particular, economic development, anti-poverty measures, food production, water, sanitation, housing, environmental protection, and education all contribute to health and have the same goal of human development" [19]. Health promoters have espoused the view that supportive environments are central to disease prevention and the promotion of health [20]. The final declaration of the 1991 WHO Conference "Action for Public Health" states: "..the term supportive environments refers to the physical and social aspects of our surroundings. It encompasses where people live, their local community, their home, where they work and play. It also embraces the framework which determines access to resources for living, and opportunities for employment. Thus action to create supportive environments has many dimensions: physical, social, spiritual, economic and political....Advocates and activists for health, environment and social justice are urged to form a broad alliance towards the common goal of Health for All" [21].

informed about the many environmental phenomena that affect health and the many ways by which the environment is influenced by human action.[7] On this basis, we can recognize indicators of present and future problems, know where to ask for more information and help, and effectively collaborate with other social actors. Just as important, we can focus attention at the local level and help people feel and be capable of acting for their own health and their own environment.

There are many specific initiatives we can take to support communities in primary environmental care.

* In areas that pertain strictly to the health sector (e.g., routine services and their organization and management), we can make sure that the self-confidence and initiative of the "beneficiaries" are encouraged and valued. In family planning, for instance, we can make sure that people are fully informed (e.g., about the health benefits of birth spacing, but also about side effects of different means of contraception) and have access to user-friendly services that respond to the needs and the preferred means identified by women and their families.[8]

In environmental health, we can make sure that the services (e.g., routine inspections of food premises, shops, water sources, and garbage disposal areas) are not seen as a taxing toll on business and communities, but as a welcome support to better working and living conditions. In health research (for instance when we need to carry out an epidemiological survey), we can make sure people are consulted during the design of the study (e.g., via focus group meetings) and are asked to contribute their experience and perceived interests to the research itself. In any potentially damaging health project or routine operation (e.g., disposal of hospital waste, vector control, or opening of new water sources), we can make sure that the environmental impact is assessed and eventually eliminated or mitigated or that compensation is given. In staff recruitment and continuing education (e.g., at the hospital, clinic, or health post), we can make sure that women are not discriminated against, but are rather promoted, understood in their special needs, and employed in projects involving the empowerment of women in the larger social context.

* Whenever possible, we can interact and collaborate with governmental sectors other than health and with decision makers, professionals, and business people. For instance, we can team up with local agriculture officials to help farmers (and especially the poor among them, often women) produce more food but also to prevent soil erosion or the spread of pests. We can advocate for health and environmental protection in the various phases of development projects (e.g., an irrigation system or a new factory). We can collaborate with forestry officials to promote the use of efficient stoves that protect people from indoor air pollution while using up less firewood from local forests (for instance, discussion groups and demonstrations could be held during health gatherings for growth monitoring or vaccination).

We can elicit the support of local leaders for public health interventions (e.g., a local boycott of a toxic or environmentally damaging product). We can talk with business entrepreneurs to promote local income-generating ventures in which people especially women -- get employment in projects that are beneficial for health and the environment (e.g., waste recycling, integrated pest management, biogas production, fish ponds fed with sewage water, ecotourism, local manufacturing of efficient stoves, commercial tree nurseries, latrine construction businesses, etc.) If needed, we can advocate for freedom of gathering and local organizing for "health matters."

* Always we can interact directly with local communities, We can inquire whether people had noticed some change in the quality of their environment, whether they connect this to other phenomena (changes in

7. The area is much trickier than one can at first imagine. Authoritative studies on some old and new environmental practices (e.g. pastoralism in the arid savannah, slash and burn agriculture, or green revolution packages) can be dramatically contradicted by other, equally authoritative studies. In fact, every type of environmental management implies a mix of advantages and disadvantages, which can be properly weighted and decided upon only by the people who bear their consequences. For a review of related concepts see [22].

8. See [17] for an illuminating description of cases.

kinds of crops and production techniques, access to land and resources, political power, local demography, market forces, activities by nearby communities, climate, etc.) and whether they perceive or expect some changes in health as a consequence. We can promote and facilitate the participatory assessment of local problems and resources (e.g., by community diagnosis, participatory action research, sondeo,[9] and participatory rapid appraisal) [23,24,25,26,27,28,29,30,31,32].[10] Following that, we can help organize workshops in which community representatives, public officials, and other stakeholders agree on what needs to be done and on each party's needs and responsibilities (microplanning, collaborative management agreements) [33,34]. We can provide information about potential disasters, and elicit and support a community's interest in preventing them (e.g., by reforesting a degraded hillside, reenforcing buildings, or clearing up fire hazards) [35]. At the minimum, we can participate in public events and celebrations, and use the occasions to illustrate positive examples of local activities in which health, environmental, and economic benefits have been successfully combined (e.g., building a slow sand filter for a village water supply, or setting up a garbage collection system).

* Of great importance, we can support the capacity for local organizing, beginning by finding out whether local institutions exist -- or have existed -- with capacity, responsibility, and authority for the management of communal resources. If appropriate, we can propose to invest such institutions (e.g., a village irrigation committee, a residents association, or a mothers club) with specific health tasks and authority. When no local institutions exist, we can promote their development, possibly beginning with associations of people having particular health concerns (e.g., youth, seasonal migratory workers, disabled people, people with AIDS, squatters, or the elderly). One way in which this can be done is by offering -- at least for a while -- some free services to organized groups. Later on, these groups may be encouraged and supported to raise funds for their own aims as well as to pay for the special health services they need. With the collaboration of teachers, we can also entrust groups of children with small scale activities that have associated health, environmental, and economic benefits (e.g., school gardens, collection and replication of local tree and

crop varieties, or recycling).

* When communities are organized and ready to take action, we can make sure that if they express a specific need (e.g., for information, advice, or support in a particular initiative) we do as much as we can to respond positively and meet it as they define it. For instance, we may be requested to find sources of technical advice and credit for urban squatters willing to improve their own housing, water supply or sanitation facilities. We may be asked to provide basic information and designs for technologies that increase a given work output and reduce work-related strains and injuries (in particular, technologies that can be used and repaired by women and children). We may be asked to support farmers to exchange knowledge and seeds with other farmers, thus acquiring more stability and local control on food production. We may be asked to advise communities on how to obtain legal information and counsel so as to improve their access to and tenure on land, housing, and natural resources. We may be asked to assist factory workers to prepare plans to convert production towards safer and more environmentally benign processes and products.

Many of the above examples do not fit the traditional view of the health professions, and they are not recommended for clinically oriented personnel. For such people, perhaps, even the prescription of King -- "focus on providing family planning services" -- is unlikely to be convincing and/or followed. For public health professionals, however, and for health staff oriented towards social epidemiology, the above examples may provide some hints on how to support local communities in their own health, environment, and development initiatives. In this work, district and local officials in managerial roles

9. A Spanish word used to indicate a process of participatory appraisal.

10. The IUCN manual [32] is specialised on participatory assessment and planning around issues of integrated population dynamics and natural resource management.

have excellent chances to act, but so do epidemiologists and professionals with expertise in environmental health, health education, and social sciences

Ideally, the preventive health services would be in charge of the activities mentioned above, with epidemiological studies guiding the setting of priorities and allocation of resources and decentralized health centers helping communities to organise themselves, assess their needs, and plan their initiatives together with other relevant social actors.[11] At times, the health services may just act as "match-makers" between organised communities and the providers of their crucial needs. What this may mean for the health-care providers serving the Amazon Community discussed in part one cannot be known or foreseen outside of the specific context. What we know, however, is that health professionals capable of moving beyond their sectoral limits into such a "service-oriented" approach to primary environmental care will aim not only at short-term gains in mortality and morbidity, but also at maintaining a supportive environment for health. They will work for "health as a sustainable state." ❧

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11. See a full description of this option in [36].

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