

“CRISIS MANAGEMENT- A CASE STUDY ON ENVIRONMENTAL CRISIS”

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ABSTRACT

Environmental degradation can no longer be handled by means of traditional local remedies in the face of the current global environmental crisis. The author outlines specific ways to overcome the crisis through international means, obliging each individual nation to reduce its own hazardous production, while enjoining a collective effort to confront the challenge of global environmental deterioration. Only through policy-making based on the recognition of shared danger and international commitments to reduce damage can we achieve a shared moral responsibility for environmental protection. Security concerns and systemic vulnerability within trading systems are critical factors in international business success. Failure to embed organizational capabilities to deal with vulnerability can contribute to preventable losses. This paper presents a conceptual framework for understanding where vulnerability may impact trading systems and suggests that crisis management capabilities within organizations dealing maritime trade (especially ports) can increase the ability to identify early warning signs of the emergence of crisis situations. Environmental policy is about what government does and does not do to address environmental problems.

KEY WORDS

Evolution and characteristics of environmental problems, crisis, environmental justice, health, and globalization.

INTRODUCTION

The world is currently facing an unprecedented health and environmental Crisis. Despite progress in both the health and the environment fields, the situation is approaching the brink of global disaster. So extensive and far-reaching are the problems that the future wellbeing of humanity, together with that of many other life forms on the planet, is in jeopardy. On one level, individuals and communities — especially those who are poorest, most marginalized and suffering the most discrimination are facing the direct consequences of *local* environmental destruction, which often result from exploitative business practices and destructive development projects. Those who are worst off pay with their health for the destruction of their local environment. On another level, people all over the world are beginning to be affected by *regional* and *global* environmental changes. These drastic environmental problems, e.g. the changing climate and the depletion of the ozone layer, are mainly the result of unsustainable lifestyles, over consumption and unhealthy patterns of development. Also these environmental problems are likely to hit the poor and marginalized first — and with the most drastic consequences — but will sooner or later also affect the privileged. Unless curbed (through wide ranging, structural changes) these global environmental trends

threaten to cause havoc to whole ecosystems and essential life-supporting systems. This may in turn lead to an immense, unprecedented crisis for the whole of humanity. It is thus of utmost relevance for everyone involved in the People's Health Assembly to understand the links and interconnections between health, the environment as well as underlying factors such as social, political and economic structures which determine the current patterns of development. Ultimately, the health and environment crisis relates to issues of social justice. Analyzing health in an ecological and environmental framework calls for a broad, intersect oral, holistic understanding of health. It shows how many of the pressing health and environmental problems of today share the same root causes and the same barriers to being effectively tackled and solved. It encourages a long-term perspective on health and its future challenges. And it provides, through the experiences of the environmental movement, exciting examples of how people — or 'civil society' — can successfully influence current thinking and policies. To achieve environmentally sustainable societies will require drastic changes in the current world order and the formulation of alternative ways of thinking. Within the environmental movement there is a huge wealth of ideas, experience and visions of what an alternative — just, environmentally sustainable and people-oriented — society would look like. The health movement can draw on this experience while, on the other hand, influencing the environmental movement to incorporate human health into their analyses and actions. A closer integration of the health and environmental movements is essential to counter the present environmentally destructive and exploitative course of development. In order to solve the current crisis, *both* humans and the environment must be taken into full account.

THE ENVIRONMENT

Evolution and characteristics of environmental problems

The destruction of the environment has always been part of the human story. Throughout time, environmental problems have been some of the most important factors affecting people's health, both on the individual and the community level. Floods, plagues and the environmental consequences of war have continuously led to ill health and premature death. However, as the scale of human societies has steadily increased and technology has developed ever faster, the pressure on the environment has likewise increased enormously. Fuelled, by a runaway global economic system — which has created both unprecedented affluence (over consumption) and enormous levels of poverty — environmental deterioration now threaten to increase inequalities and cause irreversible harm to ecosystems on a *global* scale. While many environmental problems remain *immediate*, local problems whose causes may be relatively easy to understand and for which solutions can be identified (although not necessarily easy to implement), many others are incredibly complex and difficult to handle. These involve much uncertainty, affect whole continents or even the whole earth, and are the combined result of millions or billions of people's behaviors. They are often deeply embedded in societal structures maintained by powerful interests. Even worse, many of the current problems cause *irreversible* damage, so we cannot afford to make certain mistakes even once! Moreover, there may be a considerable time lag between the harmful action and the visible effects. The history of the environment is partly a story of unpredictable, unexpected problems. Often, environmental abuses are absorbed until a threshold is crossed and a catastrophe results. At this stage it may be too late, or more

costly, to reverse the damage. There is no reason to believe that the future does not have new unpleasant surprises in store.

Environmental threats to health

Degradation of the environment threatens health both directly and indirectly; and both immediately and in the long term. The environmental problems we most easily observe are those with immediate and direct effects. People — and mostly the poorest and the marginalized — get sick from drinking polluted water, eat contaminated food, suffer from exposure to polluted air and poisonous chemicals, and spend much of their time in harmful working conditions. People's health suffers in immediate and indirect ways from, for example, food shortages caused by the environmental degradation of both farmland and forests. Environmental refugees — people who have been forced to leave their homes because of the destruction of their local environment — often suffer severe hardships and are prone to ill health.

Many people are also being killed or maimed in wars fought over scarce natural resources. Accidents resulting from environmentally induced natural disasters, such as floods caused by the destruction of forests, are another example of the immediate and indirect effects of environmental degradation. Many environmental threats to health have direct, long-term (delayed delayed) effects about which awareness may be slow to develop. For example, cancer is increasing rapidly in all areas of the world, largely as a result of exposure to pesticides, carcinogenic chemical substances included in the goods we consume, and increased exposure to various forms of radiation. These threats concern every person on the planet, although we might not even know what is making us sick and where it is coming from. Toxic substances accumulate in our bodies and are mixed in new and potentially lethal ways. Health may result several decades after exposure. Yet, the possible indirect effects of environmental change in the long term may pose some of the most alarming threats to human health. The disturbance of the world's climate due to enhanced global warming is already underway, and may cause severe damage to health. Droughts and floods could kill millions of people and introduce new epidemics. New scarcity of valuable resources might increase tensions and lead to drastic increases in wars and violent conflicts.

Table 1: Possible health effects of environmental degradation

Root/underlying Causes	ENV ¹ change	Manifestation	Direct, early	Direct, late	Indirect, early	Indirect, late
Exploitation of people and nature; egoistic behaviour and self-interest	<i>Enhanced greenhouse effect</i>	Global warming and other climatic change	Heatwave-related illness and death	Natural disasters: cyclones, floods, landslides, fires	Extension of vector-borne infections	Altered viability of (edible) fish in warmed oceans
Underlying views on nature, progress and development						
Growth-centred development	<i>Stratospheric ozone depletion</i>	Increased UV-B flux at Earth's surface	Sunburn, conjunctivitis	Skin cancer		Impaired growth of food crops and of marine micro-organisms base of aquatic food web)
Over-consumption/ Affluence			Suppression of immune system → increased risk of infection	Ocular effects: cataracts, pterygium		
Failure of neo-classical economic theory to account for true environmental costs	<i>Acid aerosols (from burning of sulphurous fossil fuels)</i>	Acid rain	Effects on respiratory system	Aquatic damage (reduced fish)	Impaired growth of crops	Impaired forest growth → reduced ecosystem productivity
Corporate concentration/ Profit maximisation	<i>Land degradation: intensive agriculture, overgrazing</i>	Erosion, sterility, nutrient loss, salinity, desertification	Decline in agricultural productivity	Rural sector depression → migration to fringes of cities (see bottom row)	Exposure to pesticides and fertilisers (may also cause algal blooms)	Consequences of silting up of dams and rivers
Impaired long-term vision	<i>Loss of biodiversity</i>	Depletion of underground aquifers	Lack of water for drinking and hygiene	Decline in agricultural productivity	Loss of potentially edible species	Greater vulnerability of crops and livestock. Reduced vitality of ecosystems
Scale: no direct feedback between cause and effect	<i>Loss of genetic diversity; weakening of ecosystems</i>	Destruction of habitat	Deforestation → disruption of local culture	Loss of genetic diversity; weakening of ecosystems	Loss of medicinal, and other health-supporting materials	Deforestation → greenhouse enhancement
Effects of poverty and crowded living conditions	Crowded urban slums	Infections	Malnutrition	Social disorder	Chronic toxic effects of environmental pollutants	Consequences of overload of local ecosystems

Root causes of the Environment and health crisis

Like so many other aspects of the health crisis, many of the root causes behind environment and health problems can be traced to the current dominant development model, the global economic system, and the grave injustices associated with these. Several factors can be identified.

View of development and progress

The notion of 'progress' underlies much of what has become mainstream Western development thinking, which dominates views among the elites as well as many ordinary people around the world. The idea of progress, which emerged in the 18th century in Europe during the Enlightenment, introduced the view that history was a staircase of constant improvements and increasingly advanced stages. Not surprisingly, Europe placed its own culture at the top, and the European experience came to be seen as the norm which all other — 'backward' — societies would eventually follow.

The uniqueness of each culture was ignored. The Enlightenment also drastically altered the existing views on nature and the relationship between human beings and nature. The metaphor of nature as a mechanical, clockwork construction, which could be fully understood by dividing it into minuscule pieces, and the view of nature (except humans) as inert, and existing only to be exploited maximally by humans, gained acceptance and legitimized 300 years of large-scale extraction and abuse of the environment. It is from this tradition that the mainstream understanding of 'development' and 'globalization' stems: the view of a universal, linear, predetermined Pattern of societal change where different societies all take part in the same race towards industrialization and ever-increasing wealth. And it is from this very same tradition that today's dominant economic theories emerge.

Outdated economic thinking

Unfortunately, all dominant economic theories fail to take into account the environmental concerns and long-term sustainability of society. The established economic theories — which guide decision-makers from all over the world and from most kinds of ideological backgrounds — regard the economic system in isolation from ecosystems. As ecological services are not owned, their degradation and abuse are not accounted for and consequently neither show up in GDP nor function as disincentives to continued exploitation. In fact, environmental destruction usually improves the look of the national accounts, since all economic activity (destructive, as well as constructive) add to the gross domestic product while none of the reduced carrying capacity of the ecosystem is taken into account. Thus, the economic activity following both the Bhopal gas accident and the Chernobyl nuclear disaster improved the national accounting in India and the USSR respectively, although considerable real natural wealth and human lives were destroyed. The dominant economic theory has explicitly encouraged excessive extraction, consumption and waste—all in the exalted cause of expanding the. The failure of mainstream economics to consider environmental constraints is clearly one of the most serious causes of the present environment and health crisis.

Excessive focus on economic growth

Built into the established economic theories is a supposition that unending economic growth is both possible and desirable. In fact, growth and increasing consumption are

two of the main objectives of capitalism. Yet, from an environmental perspective, this excessive focus on economic growth is both undesirable and unrealistic, especially in the rich, industrialized countries. It is impossible for the world economy to grow its way out of poverty and environmental degradation. Instead, wealth must be redistributed and the world's economic systems be kept at a sustainable level. Exponential growth is impossible in the long run. Rather than hoping for everlasting economic growth — which will unavoidably lead to increasing burdens on the earth's already strained ecosystems—David Werner tems — there is a need to find the optimal scale of the economy and then develop sustainable economies. Such economies would not be static or stagnant: 'An economy in sustainable development adapts and improves in knowledge, organization, technical efficiency, and wisdom; and it do this without assimilating or accreting, beyond some point, an ever greater percentage of the matter energy of the ecosystem itself....' Yet, in the short and medium term, environmentalists agree on the need for economic growth in the South. Few people would dispute the need for economic growth and industrial development in the economically poorer countries. However, unless these processes are based on environmental regeneration rather than Continued environmental degradation, they will not be sustainable and will undermine the South's populations' conditions of survival.

The eradication of both poverty and excessive affluence needs to be put firmly on the long-term agenda of humanity. From a policy point of view, such economic thinking is totally absent from current decision-making. Reliance on growth means many unpleasant decisions can be avoided. Dividing a growing pie is easier than redistributing what there already is. And the notion of growth is deeply ingrained in concepts such as progress and development. Yet, to come to grips with the environment and health crisis one needs the courage to question established truths, which may in the end turn out to be 'lies'. The excessive focus on economic growth is likely to be just that.

Neoliberalism and trade—as if the market could solve everything

Since the early 1980s, neoliberalism has become the dominant economic policy of our time. In countries of the North and the South, governments are aggressively pursuing the neoliberal prescription of letting the market solve all problems while reducing the role of the state to a minimum. The same ideology is firmly rooted in the world's most powerful intergovernmental economic institutions: the World Bank, the International Monetary Fund (IMF) and the World Trade Organization (WTO). As a result, privatization and the promotion of free trade have been aggressively pursued on both regional and global scales. In the early 1990s the North American Free Trade Agreement (NAFTA) was signed, despite massive protests, and in 1995 the WTO eventually came into existence—with more powerful mandates than any other international organization. These institutions are making efforts to open every country's market to the rest of the world. In 1998, a Multilateral Agreement on Investments (MAI) was on the verge of being instituted, which would in essence have granted foreign companies the right to 'sue a government for denying them the right to out competes local firms. Altogether, these policies have had direct negative consequences on people's health, which is further discussed in several other PHA analytical background papers ('for example, 'The Political Economy of the Assault on Health' and 'Health and the Health sector').

Neoliberal policies have also had serious negative consequences for the environment. Poverty, leading to overuse of marginal lands, malnutrition and ill health; the selling of land and natural resources; privatizing of the common resources; reluctance to regulate

large corporations; pursuit of free trade in opening up new markets; the emergence of free-trade zones with weakening worker safety and lax environmental regulations: all these stem (at least in part) from neoliberal policies and impact negatively on the environment and on people's health.

Globalization: Corporate concentration and lack of participation

The growth-oriented, neoliberal economic system is concentrating power in the hands of a minority and weakening participation in decision-making by the majority. Over the last few decades, inequalities have increased tremendously, with the richest 20% income group now having 74 times the income of the poorest 20%.³ Transnational corporations (TNCs) are taking advantage of the liberalized global economy by establishing themselves in new markets and consolidating their positions through giant mergers, which are now happening at a frantic pace. The value of mergers between TNCs exploded from USD 0.9 trillion in 1996 to USD 3.4 trillion in 1999.⁴ In 1974, the annual value of US acquisitions was less than USD 12 billion, which rose to USD 330 billion in 1988, and in 1999 exceeded USD 1,7 trillion. In short, the already powerful are becoming more powerful. Through their activities on a global scale, countries are forced to compete with each other by offering the most favorable business conditions—often in the form of weak environmental standards and policies that keep wages low and hamper workers' ability to organize. Thus, as governments are gradually handing over much of their power to the market, it is becoming increasingly difficult to regulate against environmentally destructive behavior, both at the national and international level. National policies that discriminate against environmentally harmful products or production processes may be challenged as constituting trade barriers. In the name of 'free markets' and 'efficiency', economic orthodoxy is rapidly opening up the global economy for those with the best ability to take advantage of new opportunities — those already in powerful positions — thereby perpetuating unjust and environmentally inappropriate practices. International organizations such as the WTO, the World Bank and the IMF are all consolidating power. Ideals and societal norms emphasizing policies and conduct for the common good have suddenly been dismissed as naïve and unrealistic dreams and are quickly being placed on the ideological waste dump. People are feeling more and more alienated and increasingly mistrust their political systems. These disturbing transformations are further analyzed in other PHA background papers on the political economy of health, and social action for health.

Poverty, over-consumption, the environment and population

The relation between consumption, poverty, environmental destruction and population has long been one of the most controversial issues in the environmental debate. Some environmentalists argue that the growing population of the world (especially in the South) is a root cause to the global environmental destruction and one of the most serious threats. They say that the world is rapidly reaching the maximum number of people that it can feed. Every additional person will mean increased environmental destruction and overuse of natural resources. They see the Third World population growth as a ticking bomb, and argue that it must be curbed by drastic means. Although it is true that there is a limit to how many people the earth can sustain, the above reasoning has some fundamental flaws.

First, looking at the number of people without also taking into account each person's consumption gives the wrong message. In fact, over consumption and affluence in the

rich world and among the world's elites is a more serious problem than the number of children that poor people have. Currently the richer fifth of the world consumes four fifths of the world's resources and is responsible for the majority of the pollution and waste. On average, a child born in the United States will be a 50-100 times larger burden to the Earth's ecosystems than a child born in the Third World. Therefore, population should be as much of a Northern concern as a Southern concern. With their current lifestyles, most of the Northern countries are already 'over-populated'. Second, concentrating on numbers is to focus too much on symptoms of much larger, underlying problems. Those worried about the rapidly growing human population have too often seen 'technical' approaches such as family planning and coercive population control measures as solutions. Yet, it is clear that the most important factors behind the reduction of population growth are the improvement of social conditions, women's status, education and reproductive rights, and overall equity in society. Availability of contraceptives is just a necessary condition, but far from the solution. Even if one focuses on numbers, the best way to reduce population growth is to fight for social justice.

THE WAY FORWARD

In order to successfully move towards lasting solutions to the health and environment crisis, we need to be aware of future challenges, the conceptual barriers that need to be overcome and various forms of social action for change.

Future challenges **New technologies: Possibilities and Threats**

Consideration of the environmental problems we have experienced to date shows clearly that many of them stem from the introduction of new technologies. These were initially thought to be harmless and then, at a later stage, when their use had become widespread, they were found to be destructive. DDT was initially seen as a miracle chemical; the emission of CO₂ from cars was not regarded as a problem at first; and no one thought that cadmium used in batteries would eventually show up in the blood of all living beings. What, then, are the emerging and potential environmental and health hazards from which we may suffer in the future? What new technologies are under development? What trends need to be scrutinized now in order to anticipate and preempt future problems? These are important questions for PHA activists to consider. In the field of genetics and biotechnology, development of new methods and technologies is taking place so rapidly that there is very little chance to scrutinize it all carefully. Despite the many promises claimed by its proponents, there are a number of biotechnology applications that may have direct negative effects on people's health? Some molecular biologists point out, for example, that very little is known about 'genecology', the spontaneous interaction between genes within a manipulated organism or what the effect on humans may be of eating genetically manipulated food. As long as there is so much uncertainty surrounding the technology there should be very tight restrictions on its application outside the laboratory. Likewise, much controversy surrounds the introduction of genetically modified plants in farmers' fields. Critics fear that the genetically modified organisms may interfere with the natural populations and at worst cause considerable ecological disruption or even epidemics. Several countries are also using genetic engineering to develop new forms of weapons that could have disastrous consequences for both people and nature. For example, in at least a dozen countries there is research on the use of biological weapons targeted for certain ethnic groups of a population. However, it is important for health activists to also look beyond

biotechnology. Today, several new technologies with potentially huge implications on health and the environment are under development. Nano-technology and its merging with Micro-electronics and genetic engineering, the development of micro-robots and the field of 'psycho-engineering' all present serious concerns from both a health and environment point of view. Discussions on both the threats and possibilities of these technologies must urgently be brought into the public debate. The introduction of new effects onto those with little influence or power. One of the foremost challenges for the future is thus to handle better the development and introduction of new inventions. Mechanisms are needed to stimulate the development of relevant, environmentally and socially appropriate technologies. Procedures and regulations must be put in place within universities as well as in the private sector to prevent the development of destructive technologies.

Movements for change

Throughout human history, structural changes in society have started with the convictions and dedicated struggles of a minority. Today, there are tremendous opportunities for widespread, coordinated action. Groups and networks that are eagerly hoping to link up with a larger, global movement can be found all over the world. Although the opposing interests are enormously powerful, it must not be forgotten that people's power, when well organized, is often more influential than anyone could dream of. It is this, in essence, that the People's Health Assembly is all about. In the PHA analytical background paper "Communication as if people mattered" the strategies used by the world's ruling classes to keep the majority of humanity disempowered and complacent, and the methods and resources where by enough people can become sufficiently aware and empowered collectively to transform our current unfair social order, are thoroughly examined. These discussions are not repeated here in any detail; instead some points with particular environmental relevance are mentioned.

Learning from the environmental movement

What can PHA affiliated organizations and networks learn from the environmental movement? May be a great deal. Over the last few decades environmentally oriented networks and CSOs have grown considerably in both number and influence. Their organizing and political skills are becoming ever more sophisticated and they are rapidly learning how to organize effective global networks. In recent years, for example, many environmental CSOs have begun to use the internet in sophisticated ways — both as an effective campaigning tool and as a way to coordinate work, share information, and form and maintain networks. In certain foray, environmental CSOs have been particularly influential as lobbyists at the international level. In the area of genetic resources and biodiversity, as just one example, CSOs such as the Rural Advancement Foundation International (RAFI) have succeeded in significantly influencing the international negotiations on the Convention on Biological Diversity and in UN Food and Agriculture Organization (FAO) fora. Maybe there is scope for the progressive health movement to develop its capacity and resources to participate more forcefully in the various fora of international policy-making. This is one practical aim of the People's Health Assembly. Strength of the environmental movement is its huge diversity. Within the movement there is room for service-providing, 'watchdog' activities, campaigning and think-tank/research-oriented CSOs. The more effectively these organizations are able to draw on each other's strengths and experiences, the more influential they will become.

The environmental justice movement

Traditionally, those who are most prosperous have also been those who are most effective in preventing hazardous and other dangerous operations from taking place in their neighborhoods. Through this 'not-in-my-backyard' mentality they have passed the problem on to disempowered and marginalized communities. However, increasingly around the world, people who have ended up with the most hazardous and polluting industries in their backyards are protesting and mobilizing. Thousands of grassroots movements claiming 'environmental justice' have emerged around the world. They forcefully cry out against the unacceptable fact that their children, family members and friends get sick and even die from environmental hazards. Interestingly, women often tend to take leadership in these struggles, perhaps reflecting that the very survival of their families is at stake. In many areas, those grassroots environmental movements that are also oriented towards social justice are also beginning to form alliances and networks, thereby bringing the struggle to the next level and conscientising their members on the underlying, root causes of their problems. In South Africa, for example, the Environmental Justice Networking Forum, formed in the early 1990s, now has more than 400 member groups and organizations. Through such networks, the struggle can be directed towards the goal of 'not-in anyone's-backyard', thus shifting attention to the deeper, more long-term problems of our societies' power structures, lifestyles and injustices. Environment and health — a common struggle after all, the health and the environmental movements are both part of the common, overriding struggle for a just, healthy and sustainable society. It is surprising, however, how little interaction there seems to be between activists of the environmental movements and health activists. One explanation for this may be that many mainstream environmental organizations are concerned almost exclusively with nature conservation and have not traditionally seen issues of social justice and people's well-being as part of their agenda. The environmental movements need therefore to place their environmental struggles much more clearly within an overall context of health and social justice for all. This would also be strategically wise as people are usually deeply concerned with their own and their families' health. It is to be hoped that environmentalists will increasingly regard the struggles for health as an integral part of their own struggles. Likewise, as this paper argues, the struggle for health must also join with the struggle against environmental destruction and social injustice.

Conclusion

Contemporary life is deeply influenced by rapid technological progress as well as environmental and social crises. Faced with unpredictable change and insecurity, the young generation is easily influenced by materialistic values and the moral degradation of our times. Must they accept this world as it is? Academic pressures, peer pressures, parental expectations and media influence leave very little room for independent thinking and a wholesome growing up. Must they grow up in order to fit into society or can they learn to question deeply what they see? Nested amidst the Sahyadri hills and overlooking the picturesque valley of the Bhima river, Sahyadri School is situated about 70 km from Pune. The still waters of the Bhima river, the sound of the wind sweeping over the Tiwai plateau and the quiet dignity of Sahyadri hills create an ambience of great beauty making Sahyadri School an ideal place for learning and inward exploration. In the

context of the history of civilization, the loss of linguistic and cultural diversity should be seen as part of a large-scale process that threatens biodiversity on Earth, in particular, as part of the global breakdown of man's relationship with nature that has become prominent since the last century. We face a situation in which the cultures and languages that embrace the thinking that have caused today's global environmental problems are expelling from the World the cultures and languages that have embraced "wise use" in harmony with nature. From this, biodiversity and the diversity of cultures and languages can be said to be prime indicators of the state of the world, and the loss of diversity is a global crisis to human-being in the future.

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