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Expanding The Role Of Media In Environmental Protection

By

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EXPANDING THE ROLE OF MEDIA
IN ENVIRONMENTAL PROTECTION*

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Surveillance of the environment is recognized as one of the main functions of communications in all societies. Traditionally in social communications, surveillance concerns with the environment in the total sense of the term, which includes the non-physical, social environment. Yet, environmental crises in the last two decades has narrowed the focus of orientation, especially in media communication, toward dramatic problems of the physical, natural environment, or individual components of the environment – ignoring the ecological perspective which is basic to real understanding of the total environment. Recent global developments show, however, that natural environmental problems and solutions are closely linked to man-made and social environments. The global environment converges with globalisation in many other areas, such as culture, trade, politics or human rights. The author argues that the role of the media in environmental protection should be expanded to include other communication functions, and applied in the context of the broader environment.

Almost fifty years ago, Harold Laswell identified environmental surveillance as one of the main functions served by communications. As expanded and exemplified further by Wilbur Schramm, surveillance of the environment is related to other functions of communication in a society, i.e., consensus, socialization and entertainment.¹ Schramm described how these functions are fulfilled in all types of societies and at all levels of communications — interpersonal, social and mass media communication. People communicate to exchange information on the latest developments to learn about new threats and opportunities in their surrounding. Information acquired in the process of surveillance, are then discussed and evaluated together with others in the society to reach some consensus concerning action to be taken and new norms or rules of behavior to be formed in order to be able to respond

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to the changes. At the next stage of communication, the product of consensus would be disseminated widely and put in the socialization process, either through the mass communication media, the education system or social communication networks, to make it effective and internalized in the society as accepted norms or behavior.

From Natural to Man-made Disasters

The mass media have played its role to fulfill these functions quite well, especially with regards to surveillance of the environment. A number of examples have been cited frequently to illustrate the significance of media contribution in building society's consciousness of the threats in and to their environment. The beginning of worldwide concern which later gave birth to the 1972 Stockholm conference and the environmental movement, for example, was widely credited to Rachel Carson's book *The Silent Spring* and the publicity raised by the media on its topic.

Subsequent mass media coverage created public awareness pertaining to various environmental problems and the urgent need for the protection of nature and its processes. The media's role is most visible when it disseminates the coming danger or occurring crisis dramatically, as shown in the classic case of desertification of the Sahel region in Sub-Saharan Africa. For almost two decades, the progression of environmental degradation which threaten to turn the grassland of the whole region into desert was ignored, although scientists have warned repeatedly in advance on the danger and actually submitted action plans which could have reversed the process and prevented further deterioration in the 1970s at relatively low cost. It received worldwide attention overnight in the mid 1980s, after mass media reported that the steady advance of the desert is bringing 35 million people to starvation and have killed around one million people. Similarly, public apprehension on the Minamata disease and government action against mercury poisoning came into being only after dramatic media exposure. Journalists observe changes in the environment and like the watchman in a traditional society, frequently become the vanguard to warn society of the dangers lurking in their surroundings.

The role currently played by the media in environmental surveillance is actually not new and could be traced back to the beginning of journalism. Newspapers have been reporting on such environmental developments as schedule of the tides, the weather, or earthquakes, floods and other natural disasters for a long time. Ne-

vertheless, the nature of media coverage and attention have been changing and expanding a great deal.

An examination of mass media environmental communication during the last two decades since Stockholm indicate interesting development in the way the media play its role in several respects, among others:

1. *The criteria of drama.* Environmental information was initially treated as ordinary, commonplace, run of the mill items without any special significance as news. It was purely evaluated in terms of the usual news criteria; it becomes newsworthy relative to other competing news developments of the day in all departments. Media practitioners and the public do not put special value to an event just because it concerns the environment. Unlike information concerning special departments such as sports, crimes, etc., the need for continuous reporting of environmental development apparently was not felt.

As a result, only exceptional environment or news development can get into the media, primarily dramatic events such as accidents of large proportion. Note that in the 1970-1980s, environmental news were dominated by dramatic stories like the Union Carbide pesticide factory accident in Bhopal, the Chernobyl nuclear reactor explosion, the Valdez supertanker oil spillage, or the Swiss chemical warehouse fire which released hazardous substances to the Rhine and threatening to poison drinking water for three countries along the river, etc. Each of these dramas involved thousands of deaths and injury or the destruction of invaluable natural resource, in addition to other hardships and economic setbacks.

2. *Scope of coverage.* In that connection, initial media interest after Stockholm generally covers a limited number of environmental problem areas, particularly in relations to the supply and condition of basic natural resources, like water, air, land, or energy. However, as new environmental problems develop or new disasters occur, the knowledge on the breadth and the width of the environment increases, and so does the scope of coverage. Gradually, media coverage include previously ignored areas such as wildlife conservation, forestry, alternative energy sources, environmental impact, biodiversity, etc. Although lacking in dramatic elements, most of the areas offer sufficient appeal to audience, for instance in terms of human interest or practical benefits. Environmental drama still sells newspapers and broadcast time, of course, and as a result the practice of dramatisation of common environmental stories started to appear in many media, as illustrated recently in the extensive news coverage of the whale blockaded by ice in Alaska and could not find her way home.

3. *Shifting focus.* Expansion of the role is likewise apparent in the focus of media attention. As environmental journalism and awareness grow, the focus is shifting from pure natural disasters which are beyond the control of mankind, to man-made environmental problems and disasters, e.g., pollution, abusive use of resources, soil degradation caused by unwise agricultural technology and practices. The new focus brings a sharper outlook in evaluating environmental events. Some of what appear at the start as natural disasters may turn out to be the indirect consequences of hu-

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This shift contributes to an increasing quantity of coverage as man-made problems occur more frequently and present wider possibilities for the media. Since it is man made, disaster of this type supposedly can be prevented or corrected by human being in charge – unlike mother nature, they can become the object of public debate, blame, criticisms and editorials.

4. *Expanding boundaries.* Perception on the boundaries of environment has been changing within the last decade in the media and through the media, also in the society at large. The environment in the news is no longer limited to one's immediate local surrounding. There is an increasing understanding that environment really does not recognize man-made boundaries; local, provincial, national or regional environments are basically interdependent parts of the bigger global environment. Air and sea pollution originated in one country may bring serious harm to people and environment in other countries; birds, fish and other species migrate regularly without respect to border regulations.

International environmental news today receive as much, in some cases more, attention than local developments. However, this may not necessarily be the case of deeper understanding on the part of the media, of the ecological interdependence between nations. Environmental information is becoming more sophisticated and complex to watch and analyse, and local media (especially in developing countries) may not have qualified journalists to make an intelligent report on the environment. Foreign environment news, especially disasters, would at least make up for the lack of local coverage.

It is interesting to note that even local or national environment news may be covered by the foreign media or agencies better than by the local media. To illustrate, the Kalimantan forest fires in the mid 1980 received attention in Indonesia only after it was reported in international media; on the basis of remote sensing information available through foreign sources, foreign media identified it as a big threat to the global environment due to the large tropical area affected.

It should be kept in mind, however, that this does not decrease the importance of local environmental information. Despite linkages in the wider framework, the local environment does have problems unique or specific to a particular locality. Environmental problems in an industrial city state like Singapore are much more limited and different (i.e., urban sanitation, environmental health concerns and water resources) as compared to a vast island nations with diverse topography and environmental subsystems such as Indonesia. Ideally, therefore, the media should balance foreign coverage with national and local development; while it is true that audience should be informed about environmental linkage, it should not be done at the expense of proper surveillance of the immediate environment.

5. *The growth of specialisation.* Further progress is gained after media people become aware about the vast area of the environment and its complexity. Newspapers are starting to train reporters to environmental reporting or appoint special, more knowledgeable and expert environmental reporters; some media install environmental desks and appoint specialist editorial staff. An increasing sophistication of media coverage are being developed, in line with a higher level of comprehension on the subject among the educated public and media audience. Related to point 4 above, separate events and problems scattered in different parts of the world are beginning to be presented in a comprehensive framework.

The need for more sophisticated environmental coverage, supported by trained specialists and funds, are felt first by the big media organizations in the West which could afford the high cost of environmental surveillance. This trend may reflect increasing audience demand for more environmental information.

6. *Routine technical news.* As media practitioners gain understanding on the diverse aspects of the environment, news on seemingly insignificant and routine yet essential environmental processes are receiving more attention. Procedures, details and technical problems of the environment, are increasingly covered, including data from environmental impact assessment, the characteristics and potential hazards of

chemical substances, details of quality standards and the like. These relatively small developments have their regular audience now and receive better notice, although the environmental drama is still sought after.

7. *Accommodation to ideas.* Although environmental coverage initially concentrates in hard news, there is an increasing media interest in environmental ideas in the last few years. Issues, debates and prediction of environmental trends are presented more frequently to give the general public a deeper appreciation of potential environmental risks. Information brought up in public hearing of the Brundlandt Commission or in the preparatory committee meetings of the Earth Summit, for instance, are disseminated widely by the media and succeeded in provoking people and societies in all corners of the world about such abstract concepts as ozone depletion or global warming. To some extent, the summit in Rio de Janeiro would not be as successful if it were not preceded by the media's intensive communication and information activities.

The Media's Environment

The previous discussion shows that mass media have made substantial progress in playing its role in environmental protection, especially in terms of surveillance and socialization. The media have also fulfilled the consensus function to some extent. They contribute to the process by formulating points of issue to raise public concern, provide the forum to discuss and seek for informal consensus or common public opinion and action, and propagate the need to achieve formal consensus by political communications.

All the advances, however, are mostly quantitative in character. While the frequency and volume of communication increase, the variety of coverage grows to include more subject matter, the total environmental picture has not become clearer. It is true, that people now are much better informed. Yet, their wealth of knowledge is composed of bits of information on miscellaneous parts of the environment but not the whole. They may learn more about each of the inhabitant but not the habitat, the individual species (animals, trees, shrubs, flowers, microbes) but not the biosphere – or even the forest – as a totality. Above all, they may not have a clear understanding of their own position vis-a-vis and within the environment.

The root of this problem lies in the concept of environment held widely by the

general public and the media. The popular concept tends to limit its domain to the natural environment – sometimes restricted further to natural resources, scarce resources in particular, or narrower, equated with related problems such as pollution, deforestation or desertification.

This limited view has its origin in the physical sciences. Initially the term 'environment' is used to describe all the factors external to a natural element, phenomenon or process being studied along the line of a particular discipline. The environment then is everything else outside the scientist control but not examined by itself. When interrelationships between the many components of environment later become known, the term takes on a broader meaning. Now the concept of environment represents the ecosystem – i.e., the physical system which is composed of various natural elements or components, the relationships among them, and the natural laws which regulate the whole system – or parts of the ecosystem.

The ecosystem, however, is so complex and much less understood than its parts. At the present condition, ecology is more akin to an approach rather than an integrated science. Its experts are specialists from many disciplines.² Its body of knowledge is based mostly on separate unrelated studies by individual disciplines of the natural and physical sciences, which compose alternative pictures of the ecosystem through theoretical modeling, integration and probably some speculation as well.³ When facing environmental problems, therefore, expert inclination is to limit response to the parts with specific knowledge and tools already available in such disciplines. While the commitment is ecological, actual solutions remains partial.

The same inclination is reflected in the mass media, which prefer concrete physical happenings as they are more discernible, more factual, generally have clear cause, in short have more potential as hard news. As a consequence, the media may editorialize about environment as consisting of the whole ecosystem and all its linkages, but the knowledge they impart to the audience pertains only to some physical parts or phenomenon of the environment. Analyses rarely venture beyond causal relationships between limited variables to connect to the broader perspective. For illustration, when the public is concerned about the issue of water they can not obtain enough information to enable them to form a basic picture of the overall system. The pictures in their heads take the form as collections of sketches. Separate experts and sources quoted by the media provide different information, viewed apart according

to diverse aspects of the water issue – uses, supply, demand, standards, physical quality for each particular usage, sources, distribution, cost, etc., along the line of particular disciplines.

Information may be even more difficult to obtain on the ramifications of environmental problem in relations to everyday life of the media public – as individuals or as a society. The limited concept can not explain human interactions with the environment, except to view human being quantitatively as a component of the living environment, just another species which put a burden on nature. But this view can not explain why people would induce man-made natural disasters which endanger their own life and welfare, or account for the differences in pressure exerted on nature by different societies.

The concept of environment evidently is broader and more complex than the total elements of nature. It should be viewed according to the ecological perspective, which looks into the dynamics of interaction among the various components of nature and the processes which serve to sustain life, e.g., food chain, water cycle. Any action in one will have some effect on the other components, the essential processes, or the whole ecosystem. The environment as a system is influenced by, and likewise have an influence on, the nonphysical, behavioral aspects of human being and their society. An environmental problem, crisis or issue, therefore, can not be comprehended properly without basic understanding of this perspective.

Yet, it is exactly that perspective that is lacking in media coverage. By putting the stress on the parts and details at the cost of perspective, the media ignored the most important dimension of environmental information which is necessary to fulfill its functions for the society.

Comprehensive Framework

Laswell and Schramm specifically mention surveillance as the communication function that is related to environment. In reality, the other functions also served society in interaction with its surroundings. In order to place the three functions in the context of the ecoperspective, the media need a more comprehensive concept of the environment. Schramm's elaboration incorporates everything that exists and occurs in the surroundings, including the social, political or cultural aspects which could affect or influence life and behavior. In the social context where mass media

operate and communication flows, environment is never meant to be limited to the physical, natural elements.⁴

A deeper understanding of the environment should also account for the human species in its social and non-physical dimensions, in addition to the natural components. The human being and his society have affected the environment since the beginning of history, and vice-versa. The impact is even greater today when human activities and man-made disasters may bring destruction to the environment and themselves worse than natural disasters.

Yet, the important role of the human being or people is misunderstood. The media often overlook that 'environment' is actually a social cultural construct, developed by people and society to describe everything around them, which in the best of their perception and knowledge are considered relevant, influential, and important for the conduct of their life at a particular time period. This means that human being and all his activities is central to the environmental protection.

A concept to watch environmental development then should start with people and what they consider important. In today's context, when environmental concern is greatly influenced by the problems of sustainability of resources and economic development, a comprehensive framework of analysis should be able to explain the three way interaction between people, development and environment.

In this framework, the environment at large could be classified in three levels (subsystems, spheres or environments), namely (a) natural environment, (b) man-made environment, and (c) the social environment.⁵

The concept of *natural environment* or ecosystem is fairly well known, especially in terms of its principles, processes and cycles. It consists of natural resources, renewable and non-renewable, organic as well as unorganic, biotics and nonbiotics. These, as long as they are unchanged by human hands, will remain potential resources. In this concept, human being is considered part of the biosphere. In the most natural context, people is viewed as individuals interacting with nature without any inducing harm to the environment, in fact play a role for the preservation of nature.

The *man-made environment* is created when the natural environment is transformed or changed by people through the application of technology, for the purpose of increasing their welfare. Also called the built environment, it includes the urban habitat and rural settlements, industries, infrastructures (road, bridges, electric lines),

cultivated land, broadcast stations, and other physical development. In the process of building this sub-system, men may degrade the natural environment in such a way causing irreversible damage to the natural resources, such that it can no longer support people, e.g., by cutting the cycles or chains of life of the ecosystem. Human being here act as population proper, quantitative entities which by their increasing number bring increasing pressure on natural resources. They can also be viewed as families with demands on space and man-made facilities.

The *social environment* is nonphysical and qualitative in its characteristics. It consists of values, norms, perceptions, philosophy, culture, and other products of the human mind and creativity. This include institutions which determine human relationships and the direction of interaction, such as government, laws, parliament, political parties, environmental protection tools (for example, environment impact analysis, investment incentives and disincentives, or taxes), planning agencies, pressure groups, organisations of various kinds, or mass media institutions. This sphere decides on common goals, the use of natural resources, policy on the environment, i.e., what kind of man-made environment to create with what effect to the whole environment and natural resources. Whatever natural environment to be achieved (to be protected or destroyed), the decision lies in the social environment. People here act in their capacity as members of society or groups, and citizens or nationals.

Clearly, the concept of human beings, people or population also should be viewed in a far wider perspective – beyond the traditional demography which analyse human beings quantitatively. In much of the interactions with environment, however, people do not act as total numbers. The pressure on natural resource does not necessarily come from large numbers of people. Pollution and other environmental damage could be caused by a handful of people, who have a different sets of values than the society at large.

A society's perceptions, values, and goals concerning the environment changes over time, influenced by advances and changes in knowledge, technology, welfare, conditions, and the interest of various segments in the society. This means that the same physical changes may mean differently across societies, and across generations.

The specific map held by a society is of special pertinence in analysing interaction in that particular society. Perception and values concerning water, for example, determines how a certain society treats this natural resource. Land may mean just soil for one culture, but territorial space, capital, tenure, national birth right, or "mother

earth" for other societies; that concept determines their behavior toward their land. Likewise, tropical forest can be perceived in terms of its contribution to global climate change, as natural heritage, or genetic resource by the whole world, but whether it will be preserved, carefully exploited, or destroyed, depends a great deal to the environmental concept of the people in place. This logic is not limited to traditional societies but held true for modern societies as well. This explains why it is very difficult for modern nations to come to agreement on acid rain, global warming, whale hunting, or environmental standards. The nature of interrelationships between population and environment in a society—or society of nations for that matter could be comprehended to its fullest only in the context of their respective concepts.

This framework is useful in connection to the other communication functions as well. It could help identify, among others: media roles, strategic areas of reporting or coverage, impacts, the network of interactions, values, or alternative actions. The surveillance function, for example, should be carried out in all three environments. The consensus function mostly occurs in the social sphere with the process of decision making and building up support, but it affect the other spheres. The socialization function carried out by the institutions in the social environment, occur in the built environment.

By effective use of the framework, media people would be able to discover relationships among the three. For instance, how decision is made and propagated in the social sphere for development in the man-made sphere result in the degradation of the natural sphere, which in turn would effect the social sphere itself. The scope of the environment should no longer be limited to the physical.

In short, the framework would make it possible for the mass media to anticipate future directions of environmental development. To use Schramm's terms, the media's role in environment should no longer be contained as the watchman of the eco system, but it should develop people awareness and participation and motivate discourse toward consensus, then contribute for the socialization of the new norms.

The Era of the Environment

The demand for environmental communication in the future will be increasing in quantity as well as quality. If the period after Stockholm could be called the time of raising environmental consciousness, perhaps it is not too far fetched to call the

coming future – the era after Rio and the beginning of the 21st century – as the era of the environment.

Regardless of other names accorded by many writers to characterize the coming times – the information age, the third wave [of civilization], era of technology, third industrial revolution, etc. – environment will undoubtedly become an increasingly critical factor which affect the character of the times and all aspects of life. Substantial proportion of communication activities and information produced in the Information Age will be concerned with the environment in one way or another, as people becomes more concerned with the sustainability of the earth. The third wave of civilization will be marked by a way of life which puts a higher value on natural resources and sustainability. The ingenuity and efforts of the technology era will be directed at inventing substitutes for renewable resources and clean, energy efficient applications of technology. The products of the third industrial revolution would have to use less natural resources, and so on.

After Rio, the environmental movement has become stronger but also more complex as well. The issue of global warming, as one example, needs concerted effort from everybody (rich as well as poor nations), involving protection and rehabilitation of the ozone layer, reduction of energy use, forest conservation, and even lifestyle changes, which translate into sacrifice from everybody, including from those who have no share in creating the problem. Although scientifically some aspects are still controversial – such as in apportioning responsibility or who to blame for what and how much – basic agreement has been signed for phasing out the use of gasses harmful for the ozone layer.

The challenge of this new era is made even more complex, due to globalisation in many aspects of environment, development and human life. Globalisation is not limited to the global trends in physical natural environment (like desertification, acid rain, energy shortage, or global warming), but the same phenomenon also appear in the social and man-made environments, and in their interactions. To illustrate: globalisation of western lifestyles introduces inefficient and energy wasting consumption patterns, new sources of environmental degradation, and polluting recreational activities to developing countries.

In the social environment there is a convergence, among others, between global environmental politics, trade and economics, human rights, and a host of other issues. The strategy for the conservation of nature and forest is now linked with the

politics of trade, in the form of ecolabel and environmentally clean standards of products (ISO 9000), which act simultaneously as a mechanism for free trade as well as market protection – beside the manifested goal as a mechanism for global environmental protection. Tropical forest products posing heavy competition to a country's domestic industry, for example, may be hampered by similar regulations or the charge of human rights violation, a social environment issue, somewhere along the production stream.

It is obvious, therefore, that much more need to be done by the mass media in order to play its role effectively in the future. One is to expand environmental coverage not only in terms of scope, frequency and quantity, but also in terms of quality. The second is to extend its position to a more proactive stand in the support of environmental movement. This means that mass media communication should not stopped at surveillance of the environment, but should also extend special effort to achieve public consensus for sustainable development.

What is needed is no longer just to report dramatic changes, but careful analysis of the whole, slow process of environmental change. Dramatic coverage is still necessary for certain cases. However, earlier warnings on smaller changes when it is still possible to stop the deterioration process, is more beneficial and efficient. In the Sahel case, for example, a timely effort to reverse the march of desertification and return land productivity would be able to prevent future starvation and one million deaths at a cost around US\$ 10 millions. As actions were carried out too late, an amount several times as much had to be spent just for food aid.

Thus, social and media communications can no longer limit to observable facts which strike the senses dramatically and physically. But should include various related matters in the three ecospheres, thus keeping the ecosystem perspective always in mind. This wider perspective is important, particularly by communicators in Asia Pacific. Asia-Pacific is called the coming engine of growth, the region with the most population in the world which are needing more rapid development, but also the region with substantial natural resources, including the resources for the protection of natural environment (forest, waterbodies) and for sustainable development (biodiversity, seas and their products), and so on.

Expanding Role

To sum up, the expansion of the mass media role in environmental protection in the last twenty years will still be continuing. The quantitative growth in the past will be changing to a more qualitative expansion. Environmental journalism will be come more specialised, as audience demand wider coverage with higher professional quality to satisfy rising awareness and needs for environmental information. The dramas of natural disasters will be replaced by man-induced natural disasters as well as man-made environmental disasters, which are growing due to increasing human intervention in the processes of the ecosystem.

The demand in the Era of Environment, brought by the rising complexity of environmental issue at the change of the century, would require a comprehensive coverage. Environment issues could no longer be viewed purely as physical, natural matter, but also involving social, non-physical problems. The interrelationship between environment with development and population, and the convergence of global trends in environment with globalisation of politics, trade, human rights, etc., require a more integrated concept of the environment and a better perspective of analysis. The best frame of analysis is to view the ecosystem in the three-way perspective of the natural, the man-made and the social environments.

As an important social institution in the social environment, the mass media has the responsibility to exercise its function in environmental surveillance, consensus building, and socialization, in order to strive for the protection of a sustainable environment.

Finally, to expand its role, the media must be anticipative and inovative. Anticipative to recognize the imperceptible gradual environmental changes ahead of time. Innovative in developing a well informed public through in-depth environmental reporting, for example by modifying the well known news formula of 5W + 1H to become 5W+H+I (impact or implications to the broader environment).

Jakarta/Bangkok, 23 June 1994.

NOTES

¹See: Schramm (1972). The function of entertainment is added by Schramm to Laswell's functions of surveillance, consensus and socialization. Schramm's paper was originally published in 1954; Harold Laswell's paper "The Structure and Functions of Communication in Society" was published in 1948.

²Nobody can really claimed to be an expert ecologist. There are plenty in the academic circles who do not accept ecology as something more than an interdisciplinary approach, and some compare it to ideology. Regardless of that issue, however, it is clear that the knowledge based on the limited view could not be comprehensive. Relatively little of the complex ecosystem or its workings are known, while further studies are meager compared to the vast enigma still to be unraveled. Such studies are expensive, time consuming and controversial, as demonstrated by research on the issue of ozone depletion and global warming. Even after a decade of research, controversies remain on various aspects of the issue, e.g., whether depletion is actually occurring and irreversible, the process of how it develops, what are its dynamics, impacts, etc. The limited view is still popular with the environmental movement, experts, and policymakers, because the scheme is practical enough for operational needs at the present state of the art, without sacrificing scientific principles.

³Essentially, the approach is to integrate the results of all the researches related to the subject under study. Each of the research scrutinise a particular element or component of the environment, broken down separately in partial subtopics by the expertise of relevant, individual disciplines. Water, for example, may be studied in isolation by experts in hydrology, macro and microbiology, soil science, agriculture, public health, civil engineering, electrical engineering, etc. Each focuses on different viewpoints, e.g., supply, as a basic living need, media for living organisms, means of transportation or production, health requirements, quality standards, impacts, etc.

⁴This concept is already being used in the environment management in Indonesia. The framework is actually formulated in the main legislation on the environment, i.e., Law No. 4 of 1982 on the Basic Stipulation for the Management of Environment.

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