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**THE QUEST
FOR A
DISASTER
EARLY
WARNING
SYSTEM**

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The Quest for a Disaster Early Warning System Giving a Voice to the Vulnerable

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SELECTED PROGRAMME PUBLICATIONS

- Ethnic Violence, Human Rights and Early Warnings. Kumar Rupesinghe. PRIO Paper 05/86.
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1. Concept and objective

The concept and establishment of an 'early warning' system for natural and man made disasters has been a growing concern for a variety of international organizations in recent years. This concern is based on an increased humanitarian consciousness to develop information systems which could not only establish rapid and early forms of reporting, but also develop ways of preventing the repeated occurrences of such disasters.

Just what constitutes a 'disaster'? According to the Oxford dictionary, a disaster may range from a great or sudden misfortune, resulting from a flood, a drought, an earthquake, casualties in war, to massive violations of human rights, such as extra judicial killings, disappearances and genocide. What is increasingly recognized, however, in the literature, is that a social disaster is a cumulative process, a result of human neglect, intolerance, indifference to social injustice: in other words, the prevalence of structural violence. Therefore it is vital to see the precise interrelationship between structural violence and manifestations of direct violence which lead to disaster.

In discussing early warning systems, we must make conceptual distinctions with re-

gard to uses and interpretations of the concept. There seem to be several levels of activity in considering what is meant by an early warning system, and certainly considerable confusion as to who should be responsible for establishing such systems. An early warning system is closely linked with information: the potential for information storage and retrieval, the rapid communication of such information to national and international agencies, and strengthening the competence of, as well as building new institutions capable of intervening in time. It is unlikely that any one institution would be able to handle such an enormous mandate alone.

Further, there are ambiguities with regard to the concept itself. The problem of prediction and forecasting is a crucial debate in the philosophy of science. This debate impinges particularly on the predictive ability of social sciences, and the ability to predict human behaviour. In sociological writings, 'prediction' means a stated expectation about a given aspect of social behaviour, verifiable by subsequent observations. The social process of prediction, whether of physical or social events, is to secure a measure of control. Similarly, by stating the conditions under which a social upheaval can occur, steps may be taken to prevent the outcome of one. Predictions are thus potential instruments of social action which enable an institution to facilitate a favourable outcome or impede an unfavourable one. The

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methodology and practice of prediction have been particularly advanced in the search for indicators. Various static and dynamic models have been developed, also within the United Nations, to forecast economic and social events.

We must also distinguish between random information flows and information which could be organized so as to constitute early warnings. Infrequent newspaper reports of disasters, social upheavals, mass killings or even astrological predictions may be the raw material for early reporting; but only when data gathering is systematized, classified, and organized for retrieval and analysis would it constitute the rudiments of an early warning system.

There is also the question of the enormous academic scholarship on the causes of conflict: the analysis of root causes, the various disciplines which discuss the nature of conflict, the causes of a given conflict. These are by themselves a rich resource base of knowledge available in books as well as in academic and popular journals. However, what is relevant here is whether these scholarly concerns can provide comparative theoretical knowledge which can be used for early reporting. In this sense the vast networks of universities and research institutions in the global system could play a valuable role, not only in focusing attention on the causes of conflict but also in engaging in research on the predictive aspects of the occurrence of social disasters.

Distinctions must also be drawn in competence building for disaster relief and emergency operations, and the competence building necessary for early warnings. With regard to competence building for disaster and emergency operations, the Red Cross and related agencies have developed through their National Societies considerable competence in relaying information about possible disasters. This information can be relayed by radio or by telex, and rapid response systems have been developed to cope with disasters once

they have occurred. There is much to learn from this experience.

It is crucial for the viability and credibility of developing information and communication systems to discuss ways in which the information can be used. Information is useful if acted upon, and when the information so produced provides choices of action to policy makers as well as to the victims of the impending disasters. In the newspapers, we read continuously of news which is predictive in nature. Daily we read of the most lethal weapons being produced to destroy civilization, we read of development projects such as huge irrigation dams which can affect the lives of hundreds of thousands, we read of the export of pollution from rich factories to countries in the Third World, of governments signing contracts for the purchase of foodstuffs which can affect the traditional food systems of the peoples of the Third World, or of legislation enacted to repress the rights of national minorities or to persecute political dissent.

What is of significance here is the need to establish competence and create new institutions which can intervene in time to change the direction of policies and to prevent the cumulative reinforcement of existing policies. Discussions on 'early warning' systems would remain academic if information systems are developed which bear little relationship to social policy or social action.

Important in the discussion of early warnings are some of the issues related to the demand for a 'new information order'. Here we have to raise the entire question of who controls information. Generally, discussions relating to early warning systems emanate from the North, and particularly in environments which can handle large amounts of information. Little attention is paid, however, to the victims of disasters, or to the competence of local NGOs to strengthen their own capacity to handle information, to evaluate and control their own environment.

2. Existing proposals, experiences and potentials for early warning systems

Proposals for early warnings have, as mentioned, emanated from various institutions and organizations in the recent decade. One strong concern is due to the massive increase in refugees. Humanitarian institutions have been concerned with the possibility of early intervention and prevention of the factors that lead to mass exodus. Also *human rights* organizations and related advocacy groups have stressed the importance of monitoring and documenting human rights violations. Suggestions have also been made to form new institutions for monitoring and documenting human rights violations.

Concern has also been shown by scholars dealing with the increasing manifestation of *ethnic violence* or group violence. Scholarly attention has been drawn to the 'ethnic revival' in many parts of the Third World, and predictions have been made as to the increase in violence as well as the tendency of such violence to escalate rapidly into entire regions.

Concern for early warnings has also emanated from *development agencies*, particularly in the West, who are increasingly being called upon to intervene with humanitarian assistance. Increased attention has been given to the need for monitoring and predicting long-term trends in developing countries. Several Third World governments, for example Ethiopia and Botswana, have already established modified early warning systems to prevent famine caused by drought.

Akira Onishi suggests a highly sophisticated information system, since in the fields of present day technology, particularly in the astounding developments of computers in the 1980s, extraordinary sophisticated handling of information has become possible both in software and hardware systems. Onishi suggests that this field of research has been stimulated by the progress made in global modelling:

Its 'model concept' can be seen in global terms. In other words, it is intended to present a global 'early warning system' of the sort proposed by Mr. Aga Khan, one which can take account, in a comprehensive way, of the generation of displaced persons.

Our objective is, as mentioned above, to provide a sophisticated information system for the purpose of early prevention of occurrences of displaced persons. The system is intended both to provide data and to suggest policy measures whose caliber will meet positive evaluation by most specialists.¹

Among the indicators which he lists are the following:

- 1) Destruction of the environment.
- 2) Failures in development.
- 3) Absence of peace and security.
- 4) Violations of human rights.

These factors are not necessarily independent of each other. They have obvious inter-relationships, compounding and complementing each other. The distinction between a 'natural' and a 'social' disaster has also been challenged, particularly by those who have witnessed the recent famines and droughts in Africa:

The causes of the African crisis are increasingly perceived as man made, or they are at least attributed to human activities more than to natural phenomena. Such terms as 'man made' and 'natural disasters' widely used to distinguish two categories in the past disaster jargon, are of little relevance or may even be misleading. It is now understood that some of the major interlinked factors behind the growing disaster problem in Africa are man made.²

In a recent discussion on the subject of early warnings, the cumulative effects leading to 'disasters' were highlighted by the Ethiopian Red Cross as follows:

Whereas disasters in the past were mostly regarded as sudden and short lived events, there is now a tendency to look upon disasters in African countries in particular, as continuous processes of gradual deterioration and growing vulnerability. This has obvious implications on the way the response to disasters ought to be made.

Regular observations, reliable information, and a preparedness to take initiatives and act as early as possible are vital to the prevention of disastrous effects that would otherwise easily take such enormous proportions as those of Ethiopia and a number of other African countries have been facing in recent years.³

Within the Peace Movement, several proposals for early warnings have emerged. Most ambitious has been the research connected with the 'Correlates of War Project' developed by J. David Singer et al. Here David Singer argues that by analysing past wars it would be possible to predict future ones:

Are there any similarities between the wars of the past and those of the future? Are we to discuss that certain combinations of events and conditions are regularly associated with war, to what extent are they within our control to modify? Even if they are susceptible to human intervention, what is the likelihood that our interventions will be timely and appropriate?⁴

Within the discussion on restraining military technology and redeeming modern science and technology for the good of humanity, Marek Thee has proposed that research and development be subjected to national and international scrutiny. Further, he writes:

National and international technological assessment bodies can be established to serve as a kind of 'watch and early warning system' against military excesses. Such concurrent international measures may not be easily achieved. But, if we have the political will informed by human rationality and a comprehension of the scientific-technological global interdependence, reinforced by an awakened public opinion, the barriers for change are not insurmountable.⁵

3. Security inspired early warnings

Concern for early warnings has not been the sole preserve of humanitarian organizations. The capacity to predict enemy movements, or to establish surveillance systems for domestic control of popula-

tions has been a concern of government and states the world over. Early warnings has been a concern of military establishments, and the term has long been used (often misused) in military strategic thinking. The need for such warning systems has been elaborated thus:

The primary objective of state conducted intelligence is to acquire information which contributes to warning. However, the warning process goes beyond the sphere of intelligence to impact on the areas of decisions and actions...

Many of these are discussed, including the development and use of 'decision stairways', 'meet me bridge', teleconferencing systems, and probabilistic statements regarding the likelihood of potential crisis. The communications procedures discussed were developed in response to the tremendous information burden placed upon the crisis forecaster and manager and the lack of organizational progress made in the area.⁶

Although billions of dollars have been invested in developing sophisticated data banks and early warnings, we have to note that even the most expensive systems have shown a striking inability to forecast political events. One example was the prognosis over the situation in Iran, when the US Central Intelligence Agency was not able to inform President Carter with regard to the social revolution in Iran. Paul Bracken highlights the weaknesses in the current warning system to predict:

Quite simply, the record has been terrible, despite all the technological improvements of the last twenty years. The Soviet intervention in Czechoslovakia, the Yom Kippur war, and the Argentine take over of the Falklands all caught the American government by surprise.⁷

3.1. Nuclear early warnings

Apart from the hot line developed between Washington and Moscow, efforts continue to be made to reduce the warning time to seconds, conceptualized as tactical and early warnings.

Early warning information provides decision makers with a description of enemy

forces as they prepare for or actually initiate an attack. Sensors include overhead satellites, ground based radars, communications intelligence systems, and other highly secret means. Information from these sources is transmitted to 'fusion centres' where it is processed, synthesized, filtered, and distributed to political and military command centres for action.

Paul Bracken points out not only how modern information systems helped increase the capability of nuclear missiles but how *warning and intelligence* is the very basis of the weapons system for both super powers:

Over the years both the United States and the Soviet Union have built systems of incomprehensible complexity to give advance notice of attack. Intelligence systems have merged with warning systems, and the overall system has been vertically integrated with military forces to a degree unparalleled in history...⁸

3.2. Inadvertent war

Given the dangers inherent in an inadvertent war, there have been proposals that advanced telecommunications systems might assist in providing early warning. Such a proposal was recently taken up in an exploratory discussion between the superpowers, where talks focussed on creating 'nuclear risk reduction centers in Washington and Moscow, linked by advanced telecommunications, where diplomats and military officials would work to head off incidents that could trigger a deadly escalation.'⁹

4. The role of the United Nations

In his recent report to the UN General Assembly Perez de Cuellar stated:

In thinking of the future of the Organization one is struck by the fact that the United Nations is almost unique among political organizations in having little direct contact with its basic constituency.¹⁰

Among the assignments given to the Secretary General by the UN Charter is that of bringing to the attention of the Security Council 'any matter which, in his opinion, may threaten the maintenance of international peace and security'. The underlying understanding is that timely warnings should provide the opportunity for the Secretariat, through the various competent multi-lateral, regional and governmental agencies, to obtain early reports of impending disasters, and to use the various agencies to head off a crisis or even possible war. Although interpretations of the mandate of the Secretary General vary, there has been considerable disillusionment regarding the capacity of the UN to intervene in time.

A specific proposal for an early warning system was made by the Special Rapporteur, Prince Sadruddin Aga Khan in his report on Massive Exodus and Human Rights to the UN Human Rights Commission on December 1981.

In his study Sadruddin Aga Khan drew attention to the increase in the phenomenon of mass exodus

which is becoming a tragically permanent feature of our times, ... The problem is bound to become more serious with time unless imaginative and concrete measures are urgently taken to contain, if not avert, situations of mass exodus ... It is however my considered opinion that if we are to succeed in any measure to spare future generations the spectre of millions of uprooted peoples, more is required than reports and resolutions, however pertinent and useful they may be.¹¹

The report showed implicit faith in the UN ability to establish such an early warning system, and suggested various means of achieving early warning capacity:

In order to give birth to an 'early warning system' ... it would be necessary to gather, on ongoing basis, impartial information from proven sources such as governments, the United Nations presence in the countries concerned (whether the UNDP Resident Representative, Specialized Agencies, UNIC or

other) and further informed parties in order to gain an understanding of the background and all the facets of a situation, including the ethnic, economic, political and social aspects. Of necessity, there would be visits to the field. After assessing all available data, an appreciation to include a number of possible scenarios for the future development of the situation would be given to Secretary General of the United Nations and to the competent intergovernmental organs.¹¹

A second proposal for timely action was to appoint a Special Representative for Humanitarian Affairs to the UN Secretary General. The Special Representative was expected to forward, to monitor, to depoliticize humanitarian situations, to carry out those functions which humanitarian agencies cannot assume because of institutional/mandatory constraints and to serve as an intermediary of goodwill between the concerned parties.¹²

Other proposals have been listed in a study on early warnings made by the Refugee Policy Group in Washington. They include various proposals such as the creation of an international citizens' commission for Humanitarian Affairs: a quasi-governmental or independent commission of international citizens which should be commissioned as the 'watchdog' of potential international crisis and charged with the responsibility for an early warning system. - They also propose the creation of an international private organization for the protection of refugees, along the model of Amnesty International:

The creation of a citizen based private organization, for creating a strong network to receive the facts early, to verify them accurately, and initiate a range of strategies to put pressure on governments and international organization to act. This type of organization would work with NGOs and inter-governmental and governmental organizations so as to effect coordinated action.¹³

For many reasons, the important question of peace and security, the consolidation and maintenance of human rights, and the early prevention of environmental de-

gradation and social disasters should not be left solely to the Secretary General, or the UN Secretariat, or to any of the related agencies alone.

A recent report on the United Nations stated that the UN's own capacity to deliver its existing commitments is seriously at stake. The report suggests that 'today's structure is both too top heavy and too complex'. Further, 'its present organizational structure is too fragmented', and 'without enlarging secretariat functions', a 'leaner Secretariat will enhance productivity and improve efficiency'.¹⁴

The report makes repeated reference to the duplication of efforts, where several United Nations offices are at present administering emergency, humanitarian and special economic assistance programmes. The study suggests, among other things, that the United Nations Development Programme should consider the feasibility of taking over the functions currently performed by the office of the United Nations Disaster Relief Coordinator.

The report calls for a rationalization of the information activities currently conducted by several departments and offices in the Secretariat.

Information is central to the needs of all those involved in social development. The UN, with its representatives, offices and facilities worldwide, is in a unique position to make available information to all those who need it. However, according to a recent study, the information and communications revolution has not yet reached the UN economic and social development arenas: 'Different parts and offices of the UN have their own computer technology but little attempt seems to have been made either to seek compatibility of systems or to make the results of coordinated information handling readily available to NGOs and others'.¹⁵ This particular study also draws attention to a lack of co-ordination and pooling information within and between UN bodies.

Further serious criticisms have been

levelled at the shortcomings of the UN system when it comes to mechanisms for the early resolution of conflicts. This problem is particularly pertinent when it comes to the rights of minorities, to local wars, and organizations which can ensure the implementation of the human Rights Covenants. In many cases, the problem has not been one of insufficient information about probable crises, but that the specialized agencies or the secretariat lack the mandate or the authority to act on the information.

The United Nations alone would not be in a position to assist in the building of adequate information systems, without the participation of a range of NGOs. This is particularly relevant for developing countries, who themselves can be involved in an active partnership in the exchange of information. For this to happen, steps must be taken to strengthen existing UN-NGO relationships. These relationships have developed from within, or outside the consultative framework: for example, regarding international emergencies, development aid, refugees, women, apartheid, population, and drug abuse.

Several UN Agencies, such as the UNHCR, rely upon the support of organizations related to refugees, whilst UNICEF has a structured NGO community through an elected NGO committee. In general, however, the relationship of UN agencies to the NGO sector is uneven. Nor is there structural support or support mechanisms within the NGO community.

The UN, with its representatives, offices and facilities world wide, is in a unique position to make available information to all those who need it. Information is a service which the UN could provide for NGOs and to which NGOs could and would contribute if it was a matter of pooling and sharing resources.

It has been suggested that the UN should assist governments to install the Package Switch Work (PSN systems) in their countries. This would facilitate cheap

and rapid flow of information and seek to ensure access to the networks of NGOs in each country:

PSNs are high speed communications networks which allow computers to talk to each other cheaply and most efficiently. PSNs in one country communicate to another country by way of satellites. Access is through modem and telephone. Even the smallest computer can send messages and thus benefit from fast information exchange. However, these high technology modes of communication require financial support and training, and a high degree of experimentation, the resources of which are not available generally to the NGOs.¹⁷

5. The role of NGOs

The growth, professionalism and competence of non-governmental organizations, international and national, are a unique phenomenon during the post war period. NGOs have developed their expertise in specialized fields of social action. They have been sometimes referred to as the 'third system' and potential forces of 'countervailing power', or as the 'moral authority' of the people. NGOs, however, have also been described as a web of confusion due to their multiplicity and diversity. What is increasingly realized is that the NGO community in general has a profound role to play in early warnings, monitoring, providing immediate relief, and finding creative ways of resolving conflicts. The co-existence of a broad range of NGOs from humanitarian and development groups to human rights and social justice groups provides a multiplicity of actors. Given the competence, these can provide the basis for a plural and democratic information system. NGOs, particularly the NGOs in the Third World, and the media, can play a crucial role in early warnings, sounding the alarm in cases of emergency. They can contribute expertise and motivation; draw attention to the problems of specially deprived sections of the community; influence governments and domestic authorities in the implementation

of standards and policies internationally arrived at, and provide a broad base of support for early reporting and mediation of conflicts.

Most of the discussions with regard to early warning systems have emanated from a concern with the early prediction and reporting of events which could lead to social disasters. Efforts to develop such computerized systems, with large data bases and retrieval systems, and efforts in the search for dynamic indicators, should be encouraged. However, these systems have been developed in advanced environments where the intention is to gather data so as to predict events in distant places. This leads to a division of labour between those who predict and those predicted upon. And this in turn tends to draw attention only to those efforts which continue to reinforce the existing unequal distribution of information. Surveys have shown that 95% of the computer market lies in the developed world. This concentration of power and information will remain increasingly with those who have access to advanced information technologies. Because of the enormous power inherent in satellite communications systems, in fifth generation computers and in the development of laser beam technology for communications, NGOs in the South need coordinated action programmes to ensure a proper sharing of international resources, to overcome cultural and political domination and to work towards improved local and international communication.

A democratic flow of information is the first condition for a democratic and open system of warnings and resolution. However, 'information' is a highly explosive and political issue, especially in the Third World. Many countries have elaborate laws to prevent people from gaining access to information, or censorship laws which prevent people from reporting on what actually happens in a society. The link between information and action is clearly understood in the South.

Thus, efforts must be made to strengthen the capacity and competence of Third World NGOs to communicate locally and internationally so as to create a democratic global communications system. An information system of the monolithic type developed by the superpowers cannot be encouraged as far as the NGOs are concerned.

There exist already several NGOs which have developed competence relevant here. The most significant is the work of the International Red Cross family, comprising the ICRC, National Societies and the League of Red Cross and Red Crescent Societies.

The ICRC has a mandate to protect and help civilian and military victims of conflicts and wars. However, given its method of quiet diplomacy rather than public condemnation, it 'tells the world what it is doing, but not what it sees'.¹⁸

The League of Red Cross and Red Crescent Societies is a federation of national societies, with a vast membership, and branches in some 144 National Societies. Its functions to develop the humanitarian activities of National Societies, to coordinate relief operations, to care for refugees outside areas of conflict and to coordinate development work.

Some National Societies are auxiliary to governmental early warning systems for natural and man-made disasters, which affect the food and life support system of the population. The National Societies work with the League and governments in the areas of food storage, tree planting, forestry, agricultural projects, cyclone warning systems, cyclone shelters, child health programmes, AIDS prevention programmes and other projects.

According to a recent Red Cross policy statement, the Movement has recognized its obligation to participate actively in monitoring early indications of needs (particularly in areas vulnerable to famine), in rehabilitation of disaster victims, and in long-term development aiming at disaster

prevention.¹⁹

'Prevention', according to the manual for League delegates to the field, is defined as 'measures designed to prevent natural phenomena from causing or resulting in disaster or other related emergency situations.'²⁰ Prevention concerns the formulation and implementation of long-range policies and programmes to prevent or eliminate the occurrence of disaster. It includes legislation and regulatory measures, principally in the fields of physical and urban planning, public works and buildings. 'Preparedness' is defined as:

action designed to minimize loss of life and damage, and to organize and facilitate timely and effective rescue, relief and rehabilitation in cases of disaster. Preparedness is concerned with forecasting and warning and the education and training of the population, organization for and management of disaster situation, including the preparation of operational plans, training of relief groups and the stockpiling of supplies and the earmarking of the necessary funds.²¹

It is important that organizations like the Red Cross and Red Crescent build competence even in the local monitoring of the cumulative process leading to a possible disaster. National Societies have highlighted the spurious distinction between 'natural' and 'man-made' disasters, and have called for a greater analytical and monitoring capacity for national organizations. One example is a study undertaken by the International Disaster Institute to establish a Food Crisis and Drought Information network in Northern Darfur in the Sudan. The study found that a major obstacle to any relief or development activity in Darfur was the lack of up-to-date data on the population of Darfur and their resources.

The thesis behind the development of such a network is that at the local level there exists readily available information which, if collected regularly on a longitudinal basis (i.e. monthly over a period years), could alert interested agencies to localized problem areas and a major food crisis might be predicted. This assistance could be given locally before large

population groups finds it necessary to move in search of work and relief.

Localized monitoring may mean that a system of early warning may be in place and able to detect future problems, thus allowing assistance to be taken to people before they are forced to move from their homes.²²

The report went on to indicate the wealth of knowledge available within the local societies and the importance of finding ways of tapping this wealth of information. It stressed the importance of involving the local societies and integrating their work, so as to build local competence in monitoring and evaluating, their own experiences.

With regard to the International Red Cross and Red Crescent, it seems that although it has a mandate with regard to humanitarian conflict intervention, their role remains limited in other areas. As for the ICRC, Amnesty International has over the years worked to build sufficient competence to obtain information with regard to torture and prisoners of conscience. Once again however, the information is often not available to the public, and their mandate restricts them to advocacy on issues once an event has already occurred.

There exists also many other NGOs concerned with development, human rights and communications. These NGOs, both international and national, will have a vital role to play in the development of a global, decentralized early warning system. They now need the capacity to build information systems, and to provide the basis for rapid information exchange. In general NGOs will have to confront the monopolization of information with a demand for the democratic access to information technology. Further, the working conditions of most NGOs and NGO networks, especially in developing countries, remain difficult. Political instability aggravates the problem.

Increasingly, bureaucracies are exhibiting their incapacity to manage the complexities of our global village. And today the alternative structures most likely to succeed these bureaucracies are rapidly emerging. The

most common term for these structures is 'networks'. They tend to be decentralized, where policies tend to be flexible and fluid, where staff relations are not monolithic and hierarchical, where the structure tends to be polycentric rather than monocentric.

With regard to the early resolution of group violence, a new NGO - International Alert - has been formed, based in London with a mandate for the early resolution of a violent and persistent conflict. Efforts are being made to encourage research not only into early indications for group conflict but to develop new mechanisms, new platforms for conflict resolution. Further, International Alert has a research programme intended to involve university researchers in making comparative studies on such problems. For example it co-operates with the UN University, which has a programme on ethnic conflict and early warning.

As to the traditional news media, we should note that 75% of the international information networks are controlled by four news agencies, with only passing reference to the Third World. The Inter Press Service, although not an NGO in the strict sense, has been developed to emphasize those issues, actions and events fundamental to Third World development and international peace and progress. At the May 1986 joint conference on Communications, Development and Human Rights, the IPS noted that it will establish a special editor for Human Rights reporting, sensitize journalism to human rights issues, and endeavour to establish a special service for national and international NGOs. An IPS special project is being developed to build new communication structures for human rights reporting.

With regard to the question of information, we have already noted the problem of censorship and the restrictive laws on information. Information on local concerns must be available to the local structures in society. The right to be informed and the right to information have to find entry into international discussions. Recently, a small NGO has been established with the express

aim of monitoring censorship and creating networks which can help towards a more democratic information system. It is named *Article 19*, from the Universal Declaration of Human Rights.

For the majority of NGOs in both South and North, documentation and information exchange have been a sporadic activity. NGOs lack systematization and standardization of information. Each small NGO uses its own methods often based around their previous normal systems. Thus, NGOs will have to build competence in standardization of information and cataloguing procedures, to facilitate exchange of data and easy retrieval. HURIDOCs, Human Rights Information and Documentation System, has been established on this basis as a network to assist information sharing and usage. The need to establish infrastructure for information exchange has been identified as the common ground. Such infrastructures include the development of common techniques for information handling and standards. The HURIDOCs mandate is to strengthen regional competence, particularly in human rights documentation and information exchange.

With regard to low cost computerized data bases and communications, a variety of NGOs have emerged with the expressed aim of developing competence, particularly in the South (IDOC, INTERDOC). Low cost computers provide opportunities for information recording and retrieval and for the development of data bases in highly specialized areas. Once electronic mail becomes cheaper than the conventional post, every NGO will be able to do cheap mass mailings in a fraction of the present time. Advocacy groups anxious to obtain world wide responses will find great advantages in electronic mail service.

At present, advanced new technologies in communications (micro computers, local area networks, modems), with access to international data carriers and satellites, remain a monopoly of the North. The challenge for the future is the need for organized

information networks with specialized division of labour, to produce and coordinate NGOs and for actions and projects carried out between NGOs.

With regard to the use of satellite technology, there is a strong case for involving grass roots movements and international NGOs alike in the learning process about satellite as well as radio communication. The aim would be to ensure adequate access to the airwaves for the non-governmental sector as a whole and guarantee the democratization of satellite communication.

In this discussion of communications and information for early warnings, we have stressed the need to strengthen the capacity and the competence in the South to store, retrieve, and analyse their own information. This will often mean fundamental training in elementary documentary work, in standardization of procedures, and in the handling of computers. Here Northern NGOs and donors have an important role to play.

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