of the levels of contamination and measures that they should take to avoid health risks. This was a major victory for vulnerable people and their right to information.

In April 1992, an explosion devastated Guadalajara's Reforma district, caused apparently by a leak in a nearby petrol station pipeline, operated by the state-owned company PEMEX. Residents of the district had complained for at least two days about the persistent smell of gas. This was ignored by the authorities and the facts about the explosion were only revealed after intense media scrutiny following the disaster in which more than 200 people died.

Following the Guadalajara disaster, there has been greater openness on the part of the Mexican authorities and there has been progress in the provision of public information and participation. However, researchers say that it is unclear whether these improvements result from a government decision to be more open or because of aggressive press reporting and consequent public outrage.

The world appears to be awash with information but also with ever more people and communities vulnerable to disasters. What can a commitment to the free flow of information do to alleviate the latter by harnessing the former? Freedom of expression is a right which only operates within a democracy. One of the principles of a democracy, however defined, is that the people have a right to participate in decision-making and it follows from this that they must have access to information if they are to exercise this right responsibly.

Access to information is both a precursor and a mainstay of democracy. It is only if information on potentially-dangerous situations is allowed to be in the public domain, and when information becomes translated into knowledge at the individual level, that people can begin to exert pressure on the authorities to look after the public interest.

Research following every major disaster in the past decade has demonstrated beyond doubt that the risks were already known and, depending on the disaster type, the remedies also known. The gap has been in the political will to apply remedies prior to full-scale disaster and to commit resources to this vital developmental need rather than, for example, to the building up of a sophisticated armoury.

While large-scale disasters are commonly thought to affect predominantly those in countries of the South, there is an increasing risk of danger to populations in the North due to the growth of nuclear installations and the potential for accidents (see Section One, Focus 3). Denying information is by no means a prerogative of non-democratic governments of countries of the South. It cannot be assumed that access to information in the established democracies of the North is easily obtained: it is not, and there are several organisations which make it their full-time job to extract information from governments about the hazards which affect people's health, livelihoods and longevity.

Many disasters could be prevented or limited if there was a greater commitment to warning people in advance and providing them with information to enable them to demand better protection from their governments. This watchdog and campaigning process of using information is part of democracy. Once people have access to information as a right - not just from their country's government, local authorities, companies and interest groups, but also from international organisations and aid agencies they can then plan for themselves, make informed choices, and act to reduce their vulnerability.

Homero Aridjis, the Mexican writer and environmental leader, wrote in April 1992: "Business as usual will not ensure enjoyment of human and environmental rights by our descendants. (... without rights to information and fair participation in the judicial process it will be impossible to guarantee the right to a healthy environment no matter how many decrees or proclamations are issued by our leaders."

Disaster victims have a right to know what is happening to them. In the aftermath of the accident at Chernobyl, a major programme by the Federation and National Societies in the former Soviet Union has focused on information, including letting people know whether they were contaminated, telling them if they are suffering from radiation-related disease, and distributing information about the safety of food and water.
Ukraine, 1991. Gueorgui Pinkhassov/Magnum

Focus 3 Chernobyl: getting information to the vulnerable

Good information is a key part of any disaster, whether for those affected or those trying to help. But the type of information required and the nature of the need for information varies widely. Technological disasters, including nuclear accidents, involve very complex issues of information, including the needs of the vulnerable for immediate information about their health and future risks.

Communication to those most in need - from facts and figures to informed reassurance - is something tackled by the Federation in its support for National Red Cross Societies managing the long-standing Chernobyl Humanitarian Assistance and Rehabilitation Programme, in which the free flow of high-quality information is a key component.

People affected by technological disasters, especially nuclear ones, invariably have far less information or understanding of their situation than those caught up in "natural disasters". The recurrent nature of disasters with a natural trigger, such as floods, means that many people who are affected understand the nature of the disaster - its timing, scope and effects - and have coping mechanisms to deal with it, while governments and relief agencies are often experienced in appropriate disaster-response.

Slow-onset disasters, such as drought, allow people to move or adapt, while even sudden-onset disasters, such as volcanoes and earthquakes, are usually short-lived in their immediate impact, allowing recovery and rehabilitation - including communication about what has happened and how it may affect people - to begin almost immediately. Whether slow or sudden, the impact of most natural-trigger disasters can be seen and understood by all those affected, allowing an informed response even by people who have lost homes or relatives, land or jobs.

Disasters with non-natural triggers - from conflict to economic collapse - are very different: they are often unexpected, frequently pervasive and long-lasting, confusing to those affected and complex for governments and agencies trying to respond. This is clearly the case for the increasing number and impact of technological emergencies, in which the free flow of high-quality information is being recognised as a crucial factor in preventing, mitigating and recovering from such disasters, be it a chemical factory leak, such as that in Bhopal, India, or a nuclear accident, such as the ones at Three Mile Island in America or Chernobyl in the then Soviet Union.

All countries running nuclear programmes for power and weapons surround their operations and accidents with secrecy. The secrecy of the Soviet nuclear industry was one of the fundamental factors behind the disaster and its long-term effects. Secrecy permitted poor management and low safety standards, secrecy slowed decision-making up and down the chain of command, and secrecy prevented a prompt and efficient response, both by those in charge and by the many thousands affected.

Sergei Kapitza, Professor of Physics at the Institute for Physical Problems, Russian Academy of Sciences, has written that "the obsessive secrecy of the nuclear industry created a dangerous isolation". He added that "the pervasive and misguided need for security" prevented a full transfer of knowledge when Chernobyl and other reactors were handed over to the electrical power ministry, which was "unprepared to handle the enormous complexities of a nuclear power station".

Secrecy and isolation prevented lessons being learned from other Soviet nuclear accidents, such as the explosion in 1957 at a plutonium processing plant near Kyshtym, east of the Urals. "Although known to many insiders, the episode was concealed by the Soviet government. If the Kyshtym explosion and its consequences had been widely studied and understood, the Chernobyl tragedy might have been, if not prevented, at least mitigated."

Access to information has been at the centre of the long-term Federation and National Red Cross Society programme to help people cope with the after-effects of the Chernobyl nuclear power station disaster of 26 April 1986. The Soviet Red Cross Society was extensively involved in the immediate aftermath of the disaster, and the Federation - through technical support from its Kiev-based permanent delegation - has taken a strong role in the affected area since 1990, assisting the National Red Cross Societies in the worst-affected republics of Ukraine, Belarus and the Russian Federation, and working closely with each republic's ministry of health, local authorities and the World Health Organization.

The delays in informing communities near Chernobyl or those in the path of the leaking radioactive materials, prevented any swift protective measures, while even in the weeks and months that followed people were given far too little information about what was happening and how that might affect them. The immediate uncertainties and the rumours which spread, especially after those workers who directly tackled the disaster sickened or died, have left a legacy of fear, confusion and stress among many thousands of people who were exposed to risks they did not understand and whose effects were rarely visible.

Such fear, stress and confusion can occur in all disasters, but a study by the American Red Cross in the wake of the Three Mile Island emergency has identified both the type of psycho-social disruption that nuclear accidents are likely to provoke, and the steps that relief workers can take to give support to those affected, many of which are linked to information.

The study suggests nuclear accidents are usually characterised by three factors which provoke the maximum psychosocial disruption: first, suddenness, with little or no warning; second, high uncertainty, with feelings of danger but a lack of knowledge among the public and relief workers about radiation or its risks; and third, prolonged duration, which may put people at risk - or prevent re-entry into contaminated areas - for years.

Many of those affected by the Three Mile Island emergency, such as the people evacuated from their homes, displayed stress and anxiety, especially a fear of the unknown because conflicting official and media reports left them uncertain about their own and their family's exposure to radiation or its impact on health. The presence of the media, interviewing those affected, increased that anxiety.

The American Red Cross advised health workers in nuclear accidents to: be knowledgeable about terminology and levels of radiation exposure in order to interpret reports for those affected; provide periodic reports, regardless of whether the situation has changed; provide accurate information to those affected regarding monitoring for contamination; and finally, to explore with those affected their perceptions and understanding of the problem.

In the republics affected by the Chernobyl disaster, the Federation-supported programme collects a wide range of information to help local people understand what happened, know their own radiological condition, discover the effects on food, assess the risks to their health, be reassured where possible, take action to protect their families and decide how their communities can - with limited resources - reduce their vulnerability.

As well as improved staff training, communications and health education, the equipment used ranges from facilities in hospitals, health centres and mobile units, where medical checks can be made of all patients suspected of any radiation-related disease, to simple dosimeters, which check the radiation count of food and water, homes and fields.

More than 150,000 people have been directly assisted through preventative or personal diagnostic information, while health authorities in six oblasts, or provinces, have received accurate data on contamination levels in the environment, food samples and among their populations. This continual monitoring also means a growing understanding of the long-term impact of the disaster and the collation of information and experience which will be invaluable in any future nuclear emergency.

Seven years on from the disaster, the need for simple, clear information remains vital. People in the areas affected report a greater number of symptoms which can be related to psychological distress, but are often quite unrelated to the actual levels of contamination where they live or their likely exposure. The Federation programme aims to answer such basic but important questions as: are my symptoms related to a serious disease caused by the accident, or is this food safe for my family?

In 1994 the programme faces new challenges. Up to four million people may still be at risk but the political and economic crises in the former Soviet Union both hampers the work of national and local authorities, and increases the stress and vulnerability of families and communities.

Crucially, the "incubation period" for many radiation-related conditions appears about to be completed. Already there are alarming reports of increasing numbers of diseases, such as thyroid cancers in children, which are being investigated and assessed so that the correct response - in surgical and medical treatment and in information dissemination - can be given. If the apparent trends are confirmed, there may be demands for the programme to be extended into other republics, and for groups in priority need to be identified.

In a disaster whose effects will be felt for decades, information will remain crucial for an effective response, by communities and individuals as much as by governments and agencies.