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**Adverse effects of the illicit movement and dumping of toxic and dangerous
products and wastes on the enjoyment of human rights**

Report of the Special Rapporteur, Okechukwu Ibeanu*

* The present report is submitted after the deadline in order to reflect the most recent information.

Summary

This report focuses on the human rights impact of the widespread exposure of individuals and communities to toxic chemicals in everyday household goods and food. A number of recent studies are cited showing that man-made toxic chemicals are present in the blood of populations around the globe at levels which in some cases are far above the recommended limits. Of particular concern is the risk to unborn and younger children from contamination via the mother. The danger of long-term exposure to a combination of chemicals at low doses has not been thoroughly investigated.

The report analyses the human rights dimension of this chronic, low-level exposure to toxic chemicals, with regard to the right to life, the right to health, the right to access of information and participation in decision-making processes. It sets out the obligations of both governmental and non-governmental duty bearers in respect of those rights, discusses the value-added of adopting a human rights approach to chemicals regulation and provides an overview of current efforts to regulate chemicals at the international and regional levels.

The Special Rapporteur ends his reports with a series of recommendations, one of which urges that regulatory bodies at the international, regional and national levels adopt a human rights approach to chemicals management.

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Introduction

1. In 1995, the Commission on Human Rights adopted its first resolution concerning “the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights”. Commission resolution 1995/81 affirmed that the illicit traffic and the dumping of toxic and dangerous products and wastes constituted a serious threat to the human rights to life and health, and it established the mandate of the Special Rapporteur to analyse the adverse effects on human rights of such phenomena. The Commission has since adopted a resolution each year on this issue (1996/14, 1997/9, 1998/12, 1999/23, 2000/72, 2001/35, 2002/27, 2003/20, 2004/17 and 2005/15). Commission resolution 2004/17 extended the mandate of the Special Rapporteur for an additional three years.¹

2. In his preliminary report to the Commission (E/CN.4/2005/45), Mr. Okechukwu Ibeanu informed the Commission that he intended to adopt a thematic focus in his forthcoming reports. The Special Rapporteur identified criteria such as the extent and gravity of the actual or potential human rights violations arising from a particular issue, and whether an analysis from the perspective of victims of human rights violations could add impetus to international efforts to address a particular issue, to be applied when choosing the thematic issues on which to focus his reports.

3. Many reports submitted to the Commission pursuant to the Special Rapporteur’s mandate have considered the adverse effects on human rights resulting from exposure to hazardous chemicals, particularly pesticides. Previous reports have also presented the Commission with information about the elaborate multilateral legal framework adopted or in the process of development in the sphere of international environmental law with a view to preventing adverse effects on humans and on the environment from exposure to some of the most dangerous chemicals. While careful not to duplicate information and analysis already contained in previous reports, the Special Rapporteur has decided to make the issue of the human rights effects of exposure to hazardous chemicals from household and food products the focus of this report. The scale of the number of people whose human rights to life, health, and food, amongst other rights, have been adversely affected by toxic and hazardous chemicals and the gravity of the suffering of some of the worst-hit individuals and communities make this one of the most large-scale human rights issues facing the international community, and the issue of adequately regulating hazardous chemicals most urgent.

4. An addendum to this report will contain a summary of communications sent to and replies received from Governments and other actors during 2005.

I. UPDATE ON ACTIVITIES OF THE SPECIAL RAPPORTEUR

A. Country missions

5. In his last report to the Commission, the Special Rapporteur stressed the importance of country visits as a means of obtaining information at the national level about thematic issues relevant to his mandate, and urged Governments to respond positively to requests for invitations for such in situ visits. During 2005, the Special Rapporteur sent official requests to visit several

countries, mainly but not exclusively from the Asian region - since that region has not yet been visited by the mandate. Despite the explicit call in the Commission resolution for countries to facilitate the Special Rapporteur's work by providing information and inviting him to undertake country visits,² only the Government of Ukraine responded positively to his request for an invitation.

6. The Special Rapporteur regrets the lack of cooperation from Governments on this issue, and strongly urges Governments to consider positively future requests for invitations. The Special Rapporteur wishes to reiterate the importance he attaches to country visits in the implementation of his mandate. He would like to remind Governments that country visits offer them unique opportunities to engage in constructive discussions and information exchange about concerns and best practices in relation to their implementation of international human rights standards as they relate to toxic wastes and dangerous products.

7. The Special Rapporteur is looking forward to his visit to Ukraine, which is scheduled to take place later in 2006.

B. Special Rapporteur statements and interventions

8. The Special Rapporteur transmitted a statement to the first session of the Joint Working Group established by the International Maritime Organization (IMO), the International Labour Organization (ILO) and the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) on Ship Scrapping, which took place in London (United Kingdom) from 15 to 17 February 2005. In his statement, the Special Rapporteur raised his concern about the human rights implications of aspects of the international trade in obsolete ships, where vessels containing toxic and dangerous products and chemicals are sold for dismantling in countries which lack resources to ensure adequate protection of workers and the environment. He also stressed that the sale of end-of-life ships under such circumstances constitutes a transfer of pollution, often from strong economies and powerful industries, to weaker economies and disempowered communities. In its extreme form, this type of trade can become a means of exploiting people desperate for any kind of wage. The Special Rapporteur was represented during the second session of the Joint ILO-IMO-Basel Convention Working Group, held in Geneva from 12 to 14 December 2005.

9. Following the Asian tsunami disaster of 26 December 2004, the Special Rapporteur received information that local fishing communities in northern Somalia had been contaminated by tons of toxic and hazardous wastes allegedly dumped in that region during the early 1990s. According to a report published by the United Nations Environment Programme (UNEP) Asian Tsunami Disaster Task Force, the Asian tsunami stirred up hazardous waste deposits on beaches around North Hobyo and Warsheik, south of Benadir, causing health problems - including acute respiratory infections, mouth bleeding and skin conditions - to several people living in the northern areas of the country.³

10. On 2 May 2005, the Special Rapporteur sent a letter to the Chairperson of the UNEP Asian Tsunami Disaster Task Force, referring to the recommendation included in the UNEP report that a multi-agency mission led by UNEP be established to assess, inter alia, the impact of

toxic and hazardous waste scattered by the tsunami on the natural environment of the country. The Special Rapporteur recommended that the terms of reference of the future fact-finding mission to Somalia incorporate an assessment of the adverse effects of toxic and hazardous waste scattered by the tsunami on the human rights of the Somali people, and requested the UNEP Asian Tsunami Disaster Task Force to forward to him information concerning the source of toxic and hazardous waste dumped on the Somali coasts for possible follow-up.

11. On 12 May 2005, the Chairperson of the UNEP Asian Tsunami Disaster Task Force informed that the Executive Director of UNEP decided to conduct a detailed desk study on the environmental situation in Somalia and to deploy an inter-agency fact-finding mission to assess - inter alia - the damage caused by the alleged hazardous waste dumping to the environment and the people of Somalia.

12. A detailed desk study on the state of the environment in Somalia was carried out based on the request made by the Somalia Transitional Federal Government in February 2005. The findings of the desk study indicate that information available is not sufficient to assess the state of Somali environment.

13. A fact-finding mission to the Indian Ocean coastline of the Puntland region of Somalia took place in May 2005. The mission was comprised of experts from UNEP, the World Health Organization and the Food and Agriculture Organization of the United Nations. The objective of the fact-finding mission was to investigate allegations of toxic waste hazards on the shores of Puntland which might have been exacerbated by the Asian tsunami. Members of the mission visited three coastal locations stretching over 500 kilometres at Hafun, Bandar Beyla and Eyl, and collected samples from humans, fish, marine life, and both fresh and sea water. However, experts noted that a more comprehensive assessment, which would include further investigations of alleged toxic waste sites on land and dumping of toxic waste at sea, would be urgently needed to evaluate the state of the natural environment of Somalia.

14. In previous reports, the Special Rapporteur had recognized that the rights to have access to information relating to the state of the environment held by public authorities, to participate in decision-making processes and to have access to justice on environmental matters constitute preconditions not only for the achievement of environmental protection, but also for the realization of several internationally protected human rights (see for example E/CN.4/2004/46, para. 13). The Special Rapporteur reiterated this message in a statement he transmitted to the Second Meeting of the Parties to the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, held in Almaty (Kazakhstan), on 25 to 27 May 2005. In his address, the Special Rapporteur restated that the Aarhus Convention was an excellent tool to advance both environmental protection and the effective enjoyment of human rights, and urged States Parties to continue their efforts to implement and further develop the Convention as an instrument to enhance public participation and accountability with a view to strengthening the protection of the environment and ensuring the well-being of present and future generations.

15. The Special Rapporteur attended the third session of the Preparatory Committee for the Development of a Strategic Approach to International Chemicals Management (SAICM

PrepCom-3), which was held in Vienna (Austria) from 19 to 24 September 2005. The primary objective of the Special Rapporteur's participation in the SAICM PrepCom-3 was to draw the attention of delegates to the links between a sound management of chemical products and the effective realization of several human rights - including the right to life, the enjoyment of the highest attainable standard of physical and mental health, the rights to food, adequate housing and safe and healthy working conditions and other human rights enshrined in the Universal Declaration of Human Rights and other international instruments.

16. During the SAICM PrepCom-3, the Special Rapporteur attended plenary sessions and held informal consultations with several Governments to sensitize delegates about the importance of adopting a rights-based approach in the three documents under discussion. On 23 September, the Special Rapporteur was given an opportunity to address the SAICM Preparatory Committee and make some general remarks on the components of the strategic approach to international chemicals management falling within the scope of his mandate. The Special Rapporteur also consulted with various non-governmental organizations to exchange information and views on issues relating to his mandate. A more detailed outline of the Special Rapporteur's views on the SAICM process as it relates to his mandate will be presented below in section III.B.

II. HUMAN RIGHTS AND TOXIC AND HAZARDOUS CHEMICALS

A. The scale and effects of human exposure to toxic and hazardous chemicals

17. The Commission on Human Rights has on several occasions affirmed that the illicit movement of toxic and dangerous products constitutes a serious threat to human rights, including the rights to life and to the enjoyment of the highest attainable standard of physical and mental health.⁴ The Commission has also affirmed that other human rights can be affected by such products, including the rights to food, adequate housing, clean water, and safe and healthy working conditions, particularly in developing countries that do not have the technologies to process and handle such products in an environmentally safe manner.

18. Toxic chemicals may constitute serious threats to human rights, the most serious being the right to life of the 47,000 persons estimated by WHO to die every year as a result of poisoning from chemicals like pesticides. Exposure to toxic chemicals occurs in different ways: exposure to everyday household and food products; exposure arising from employment in particular sectors, such as the agricultural or the mining sector; exposure to chemicals in the disposal phase, such as electronic products and end-of-life ships; or exposure as a result of an accident, one of the most extreme illustrations being the case of a catastrophic gas leak from a pesticide plant in Bhopal. Each of these situations raises a variety of human rights concerns, but may require different strategies for prevention and redress to victims.

19. The Special Rapporteur has previously reported on the human rights impact of hazardous chemicals when exposure happens on a massive scale, such as in the context of incidents of pesticide poisoning in developing countries or from accidents like the Bhopal disaster. The

Special Rapporteur has also previously reported about the adverse human impact on workers and communities involved in hazardous waste disposal or recycling operations of obsolete ships and electronic wastes in developing countries.⁵ In this report, the Special Rapporteur wishes to draw particular attention to a less dramatic, but nevertheless critical, issue, namely the impact on human rights of chronic, low-level exposure to hazardous chemicals (including pesticides), many of which are contained in everyday household and food products.

20. The use of chemicals has increased dramatically due to the economic development in various sectors, including industry, agriculture and transport. The global production of chemicals has increased from 1 million tons in 1930 to some 400 million tons today. Some 100,000 different substances are registered in the European Union alone, 10,000 of which are marked in volumes of more than 10 tons and a further 17,500 at 1 to 10 tons. According to The International Council of Chemical Associations (ICCA), whose members account for more than 75 per cent of chemical manufacturing operations, the production of their members exceeds US\$ 1.6 trillion annually. Almost 30 percent of this production is traded internationally.

21. These figures indicate the extent to which chemicals have become an integral part of modern life. Chemicals are found in almost every product, from air fresheners to electrical appliances, from cosmetics to children's toys. The Special Rapporteur recognizes that chemicals bring great benefits to society, improving our quality of life in innumerable different ways. Chemicals can contribute to sustainable development and may be beneficial in raising and maintaining the standard of living in countries at all levels of development. The chemicals industry provides employment for many thousands of people and generates considerable revenue for Governments. Use of chemicals is furthermore an important element in the public health efforts to control disease vectors and pests. When correctly used, insecticides play an important role worldwide in the prevention and control of diseases, such as malaria, which affect the health and well-being of millions of people and are an impediment to social and economic development.

22. However, the insufficient regulation and unsound management of chemicals, including pesticides, adversely impact on the effective enjoyment of human rights by individuals and communities exposed to such chemicals, in spite of their real and potential benefits to human development. A large number of chemicals in use have not been adequately assessed for risks to human health, wildlife or the environment, particularly with regard to the long-term and/or accumulative risks, leaving individuals and communities unable to make informed choices about products and ignorant about the risks such products may pose. In many countries - including developed countries - the unsound management of chemicals continues to affect negatively human health and the natural resources upon which people depend for their livelihoods, in some cases further aggravating conditions of poverty.

23. Populations of developing countries are at particular risk from the estimated 30 per cent of pesticides marketed in developing countries that do not meet internationally accepted quality standards,⁶ and that frequently contain hazardous substances which have already been banned or severely restricted in some countries.⁷ One example is the use of the organochlorine pesticide

Endosulfan, which has been aerially sprayed in some developing countries over the past decades, although it is known to cause endocrine disruptions, reproduction system disorders, central nervous system disorders, liver and kidney dysfunctions in animals and human beings. The chemical which has toxicological properties comparable with DDT has been banned or severely restricted in 32 countries.⁸

24. The toxic substances that make up most chemicals particularly in the developed world include: dioxins - by-products of PVC production, industrial bleaching, and incineration; brominated flame retardants - used in a wide range of products including plastics for computer casings, white goods, car interiors, carpets and carpet underlay, polyurethane foams in furniture and bedding; and phthalates used in plastic products (e.g. babies' teething rings and containers used in hospitals to deliver medications and nutrients) and in personal products such as perfumes, lotions and rubbing alcohol.

25. Human exposure to toxic chemicals like these is known or suspected to be responsible for promoting a wide range of potentially life-threatening medical conditions, including cancer, kidney and liver dysfunction, hormonal imbalance, immune system suppression, musculoskeletal disease, birth defects, premature births, impeded nervous and sensory system development, reproductive disorders, mental health problems, cardiovascular diseases, genital-urinary disease, old-age dementia and learning disabilities.

26. Although almost nothing is known about the long-term impact of multiple chemicals in the body over long periods, WHO estimates that chronic, even low-level exposure to various chemicals may result in damage to the nervous and immune systems, impairment of reproductive function and development, cancer and organ-specific damage.⁹ Subtle effects may already occur in the general population in developed countries at current background levels of dioxins and dioxins-like polychlorinated biphenyls (PCBs).¹⁰ For example, a study led by staff at the Harvard School of Public Health suggests that maternal exposure to PCBs may decrease the sex ratio of offspring,¹¹ a factor which may have severe implications for affected communities. Even common garden pesticides may be harmful to male fertility by reducing the level of testosterone, and lead to adverse reproductive health outcomes.¹²

27. Children are particularly vulnerable when it comes to exposure to hazardous chemicals. Sound management of chemicals is therefore a prerequisite for the protection of children's health. Some studies suggest that exposure to carcinogens can increase the risk of developing cancer if it begins early in childhood. Exposure to some chemicals and heavy metals *in utero* and early childhood can produce life-long disabilities in neurological function and learning ability.¹³ A growing body of epidemiological research and studies also suggest a possible link between long-term exposure of children to certain pesticides and abnormal growth and development; failure to acquire normal organ function; endocrine/hormone disruption; impaired development of the nervous system; cancers; and compromised immune systems.¹⁴

28. Children and adolescents are also particularly vulnerable in case of acute pesticide poisoning caused by unsafe use, storage and disposal of pesticides. Pesticides are often accessible to children in rural areas, but may also be found by toddlers exploring their homes,

garden sheds or garages. A study in Canada has shown that almost 60 per cent of poisoning cases registered at a paediatric hospital were due to pesticides and that the effects of most pesticides were acute and severe. In developing countries, the real incidence of pesticide poisoning is difficult to assess, but is assumed to be high.¹⁵

29. Another recent study reveals how hazardous chemicals, including many that are used in everyday household and food products, end up in the bodies of unborn children via the mother.¹⁶ The study analysed samples of maternal and umbilical cord blood for a list of chemicals contained in countless items ranging from food tins and electrical goods to pesticides, deodorants and toothpastes. Most of the chemicals found in the samples only break down very slowly, persist in the environment and accumulate in human (and animal) bodies to ever-increasing levels during the life span. It raises the question of whether future generations will be more exposed to potentially carcinogenic or endocrine disrupting chemicals that may lead to negative long-term health effects.

30. A survey conducted for the World Wildlife Fund (WWF) investigated the types and levels of chemical contamination from a cocktail of toxic chemicals in three generations (grandmothers, mothers and children aged 12 to 92 years) of families across Europe.¹⁷ The survey showed that every family member has been contaminated by a cocktail of at least 18 different man-made chemicals. The results also show that for certain chemicals, the extent of contamination in younger generations can be equal or exceed that of their elders. The grandmothers are the generation most contaminated with older, banned chemicals, but “newer” chemicals in widespread use such as brominated flame retardants can be found more frequently and at higher levels in the younger generations. Polybrominated diphenyl ethers, a type of brominated flame retardants, have been shown to disrupt thyroid hormones, mimic oestrogen and are linked with cancer and reproductive damage.¹⁸

31. Similar findings have been made in the United States. A 2003 report from the Centers for Disease Control and Prevention (CDC) in the United States found pesticides and their breakdown products in all of the people tested.¹⁹ The average person had 13 pesticides in his or her body. Young children were found to carry particularly high burdens - nearly twice that of adults - of a breakdown product specific to the insecticide chlorpyrifos which as already mentioned may have a negative impact on male fertility. The same report also found that adult women - including women of childbearing age - had the highest measured body burden levels of three organochlorine pesticides evaluated which are known to have multiple harmful effects when crossing the placenta during foetal development.²⁰ The report furthermore showed that women, children and elderly people in the sample population exceeded the officially established “acceptable” dose for chronic exposure of 13 pesticides in the evaluated set, with two of them exceeding the thresholds dramatically. Another 2003 study, led by the Mount Sinai School of Medicine in New York, found an average of 91 industrial compounds in the blood of nine volunteers who did not work with chemicals on the job or live near an industrial facility.²¹ A total of 167 chemicals were found in the group, of which 76 cause cancer in humans or animals, 94 are toxic to the brain and nervous system and 79 cause birth defects or abnormal development. The dangers of exposure to these chemicals in combination have never been studied.

32. While the studies referred to above have been carried out in Europe and the United States, it is assumed that similar findings would be made in surveys from many other parts of the world.

33. While the main focus of this report is to explore the human rights impact of chronic, low-level exposure to toxic chemicals, the long-term human rights impact of sudden exposure to toxic chemicals on a large scale cannot be ignored. The communities still suffering from the catastrophic gas leak from a pesticide plant in Bhopal, India, provide stark reminders of the importance of having adequate safety measures in place at all times in facilities producing toxic chemicals. It is estimated that more than 7,000 people died within days of the disaster, and that a further 15,000 died in the following years. Around 100,000 people are allegedly suffering chronic and debilitating illnesses for which treatment is largely ineffective.²² Twenty years on, the Special Rapporteur continues to receive information about the situation, alleging that the survivors still await just compensation, adequate medical assistance and treatment and comprehensive economic and social rehabilitation. Since the plant site has not been cleaned up, toxic wastes continue to pollute the environment and contaminate water used by surrounding communities. No one has yet been held to account for the leak and its consequences. A summary of the Special Rapporteur's attempts to engage the Government of India in a discussion about the ongoing human rights issues facing the affected communities is contained in paragraphs 16 to 18 of addendum 1 to the present report.

B. The human rights dimension

34. The aforementioned reports show that it is difficult to predict the exact medium - and long-term consequences of the widespread contamination by hazardous chemicals used in everyday household and food products. Nonetheless, the findings of these reports raise serious questions in relation to the enjoyment of several human rights and fundamental freedoms, in particular the right to life, the right to the enjoyment of the highest attainable standard of physical and mental health, the right to food, the right to information and participation, the right to a remedy in case of violations and other human rights enshrined in the Universal Declaration of Human Rights and other international instruments. These concerns are particularly serious with regard to vulnerable groups such as children, pregnant women, elderly persons, persons employed in the chemical, agricultural or mining sectors and people living in extreme poverty.

1. Right to life

35. The right to life, enunciated in article 3 of the Universal Declaration of Human Rights and article 6 of the International Covenant on Civil and Political Rights (ICCPR), has properly been characterized as a "supreme right",²³ since without effective guarantee of this right, all other human rights would be devoid of meaning.²⁴ Its special significance is underlined by the use - in article 6 of the Covenant - of the adjective "inherent", and by the fact that no derogation from this article is permitted even in time of public emergency which threatens the life of the nation (art. 4).

36. The right to life involves at least a prohibition on the State not to take life intentionally or negligently. Thus, in extreme cases, the right can be invoked by individuals to obtain compensation where death results from some environmental disasters, like Bhopal or Chernobyl,

insofar as the State is responsible.²⁵ Nonetheless, the Human Rights Committee has taken the view that the right to life cannot properly be understood in a restrictive manner, and the protection of this right requires that States adopt positive measures, in particular to reduce infant mortality and to increase life expectancy.²⁶ In the field of chemical management, it can thus be argued that the State may be subject to an obligation to take all possible measures to ensure chemical safety, inter alia the development and implementation of policies and programmes aimed to ensure that toxic and hazardous chemicals are handled safely during their whole life cycle and disposed of in such a way that they do not constitute a threat to individuals living in their proximity.

2. Right to the highest attainable standard of health

37. Health is a fundamental human right indispensable for the exercise of other human rights. Every human being is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity. The Committee on Economic, Social and Cultural Rights stated that the right to health is closely related to and dependent upon the realization of other human rights, including the rights to food, housing, work, education, human dignity, life, non-discrimination, equality, the prohibition against torture, privacy, access to information and the freedoms of association, assembly and movement.²⁷ Furthermore, the Committee recognized that “the highest attainable standard of physical and mental health” is not confined to the right to health care, but “embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions and a healthy environment”.²⁸

38. The realization of the right to health in the context of toxic and hazardous household and food products requires States to take all appropriate legislative, administrative, regulatory, judicial and other measures aimed to ensure that chemicals are produced, used, released or incorporated into products or articles only in ways in which risks to human health and to the environment are eliminated. These measures include the removal from circulation of chemicals that are known to cause cancer and other malignant conditions, and the dissemination of information on chemicals and chemicals management to the general public.

3. Right to adequate food

39. The right to adequate food is part of the broader right to an adequate standard of living, which also includes housing and clothing, and also contains the distinct fundamental right to be free from hunger, which aims at preventing people from starving and is closely linked to the right to life. As is the case for other human rights, this right is indivisibly linked to the inherent dignity of the human person and is indispensable for the fulfilment of other universal guarantees enshrined in the International Bill of Human Rights. The Committee on Economic, Social and Cultural Rights considers that the core content of the right to adequate food implies the availability of food in a quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture.²⁹

40. The concept of adequacy is particularly significant in relation to the right to food since it serves to underline a number of factors which must be taken into account in determining whether particular foods or diets that are accessible can be considered the most appropriate under given circumstances for the realization of the right. In the context of chemical safety, the realization of the right to adequate food requires States to adopt measures aimed to ensure that food is “free from adverse substances”.³⁰ These measures include the adoption of legislation and policies aimed to achieve food safety through a range of protective measures by both public and private means to prevent contamination of foodstuffs by toxic and dangerous chemicals. The formulation and implementation of national strategies for food safety require full compliance with the principles of accountability, transparency and participation.

4. Right to information and participation

41. Information about the effects and exact nature of toxic chemicals is often labelled as being confidential commercial information, and access is impeded by laws and regulations exempting such information from public scrutiny. In some cases, lack of information about a product’s toxicity may exacerbate the damage and impede treatment of victims, as in the case of Bhopal where the community have never been able to ascertain the exact nature of the chemicals and reactions products that leaked along with the methyl isocyanate.³¹ It is possible to argue that - considering the very real threats posed by toxic chemicals - withholding information from public scrutiny of them may violate the right to receive information, as guaranteed in article 19 of the International Covenant on Civil and Political Rights. According to one commentator, it is difficult to ascertain whether the right to seek information implies an obligation on the duty bearers in certain cases to guarantee with positive measures access to State or private information or to make information available to them.³² However, although such a *right to be informed* is still largely unrecognized in international human rights case law, in many States the rapid development of the modern information and communication society is leading to progressive statutory duties to provide information, particularly on the part of the public administration.³³

42. Unlike the current interpretation of international human rights instruments, the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters³⁴ adopts a *rights-based approach* to the issue of access to information by requiring parties to guarantee access to information in environmental matters. It refers to the goal of protecting the right of every person of present and future generations to live in an environment adequate to health and well-being. The Aarhus Convention also guarantees the right to public participation in decision-making processes relating to environmental matters, which is essential to secure a rights-based approach to the regulation of toxic chemicals.

5. Right to a remedy

43. Where there is a right, there is a remedy. This legal maxim is expressed in article 2, paragraph 3 (a) of the ICCPR, which guarantees victims of human rights violations an “effective remedy”. The right to a remedy has two aspects: access to justice and substantive redress. Access to justice requires the existence of independent and impartial bodies capable of affording

redress after a hearing that complies with due process guarantees. A growing number of administrative and judicial bodies throughout the world are giving effect to the right to a remedy in cases alleging violations of constitutional rights to a sound environment, sometimes relating the guarantee to the right to life or to health and providing a range of remedies to address environmental conditions. The Committee on Economic, Social and Cultural Rights has stressed that “[a]ny person or group victim of a violation of the right to health should have access to effective judicial or other appropriate remedies at both national and international levels” and should be entitled to adequate reparation.³⁵

C. Duty bearers

44. Many private companies have taken action unilaterally against toxics in their products, demonstrating that the substitution of hazardous chemicals is possible. Sony Ericsson, for example, is phasing out brominated flame retardants and other toxic chemicals from its entire product range.³⁶ Samsung and Nokia are committed to the elimination of toxic flame retardants and PVC plastic from some of their products. Clothing companies H&M and Marks and Spencer have substitution policies and ask their suppliers to use alternatives to a range of chemicals that can build up and persist in our bodies. Some companies such as the cleaning products manufacturer, Ecover, avoid persistent and bio-accumulative chemicals as part of their core business. While such voluntary initiatives are very welcome, they do not replace the primary duty of States to respect, protect and fulfil human rights as they are affected by the exposure of individuals and groups to hazardous chemicals.

45. In practical terms, the duties of States in this regard translate into obligations to take steps to regulate carefully the production, storage and use of hazardous chemicals in a way that prevents a level of exposure to hazardous chemicals which may result in human rights violations. States must also provide effective remedies and restitution to victims of those violations occurring as a result of exposure to hazardous chemicals. In other words, States must regulate the production and use of chemicals in a way which is consistent with the full spectrum of their obligations under international human rights law.

46. Many of the individual cases brought to the attention of the Special Rapporteur relating to hazardous chemicals deal with allegations of irresponsible or illegal corporate behaviour which has a direct adverse effect on the enjoyment of human rights on individuals and communities and which is too often met with impunity. International human rights law compels States to take effective steps to regulate corporate behaviour in relation to hazardous chemicals and holds private companies accountable for any actions taken in breach of such regulations.

47. In weak governance zones and/or where countries lack capacity to enforce effectively their international human rights obligations, the Special Rapporteur recommends that technical assistance be provided to the governments concerned in order to strengthen their capacity to effectively regulate hazardous chemicals and provide remedies to victims of human rights violations arising as a result of exposure to such chemicals. In the case of transnational corporations operating in weak governance zones, where the host Governments are unable or unwilling to effectively enforce their international human rights obligations, the Special Rapporteur recommends that victims of human rights violations arising from actions or

omissions by transnational corporations be allowed to seek redress in the home country jurisdiction, and that home country Governments ensure that transnational corporations domiciled in their countries be held to account for violating human rights standards.

48. Recognizing that there are several political and conceptual obstacles to using home country jurisdiction to hold transnational companies to account for actions or omissions in host countries, the Special Rapporteur awaits with interest the report and recommendations of the Special Representative of the Secretary-General on human rights and transnational corporations and other business enterprises, who has been mandated by the Commission on Human Rights³⁷ to inter alia elaborate on the role of States in effectively regulating and adjudicating the role of transnational corporations and other business enterprises with regard to human rights, including through international cooperation.³⁸

49. Although States are the undisputed primary duty bearers under international human rights law, the past years have seen an intense debate about the extent to which private companies have direct responsibilities under international human rights law and may be held accountable for any violations thereof. Previous reports submitted to the Commission pursuant to the Special Rapporteur's mandate have analysed critically the role of private companies in the issues at the core of the mandate³⁹ and have welcomed the draft Norms on the responsibilities of transnational corporations and other business enterprises with regard to human rights⁴⁰ (see E/CN.4/2004/46, para. 62) as an attempt to hold companies to account for actions adversely affecting human rights and to limit impunity for human rights violations. The Special Rapporteur still finds that the draft Norms have made an important contribution to the debate about the scope of companies' human rights responsibilities and the extent to which international human rights law is directly applicable to them. However, the political and legal controversy about the Norms following their adoption by the Sub-Commission means that to date they have not provided the intended clarity or broad acceptance of the scope, content and modalities of the human rights responsibilities of private companies. The Commission on Human Rights has mandated the Special Representative of the Secretary-General on human rights and transnational corporations to "identify and clarify standards of corporate responsibility and accountability for transnational corporations and other business enterprises with regard to human rights".⁴¹ Given the central role of private companies in issues of concern to the Special Rapporteur's mandate, he will study with great interest the findings and recommendations of the Special Representative in this regard.

D. The value-added of a rights-based approach to toxic chemicals management

50. A rights-based approach incorporates the norms, standards and principles of the human rights system into the plans, policies and processes aimed at regulating toxic chemicals. A rights-based approach provides a set of goals or outcomes, as well as a methodology. Firstly, a rights-based approach considers the issue of toxic and dangerous products and wastes according to a set of comprehensive goals that are drawn from the major human rights instruments. They include, for example, the right to health, the right to food, the right to participate in the conduct of public affairs and so on. Secondly, a rights-based approach provides a methodology to the issue that emphasizes human rights principles and goals of participation, non-discrimination, equality and equity, accountability and empowerment of vulnerable people.

51. A simple way to understand a rights-based approach is to focus on the following basic elements:

- Participation and access to information;
- Accountability;
- Empowerment;
- Non-discrimination and attention to vulnerable groups;
- Explicit linkage to rights.

Participation and access to information

52. Rights-based approaches promote the participation of all relevant actors - in particular the most vulnerable - in programming, implementation and monitoring. In this way, rights-based approaches promote “bottom-up” approaches to the issue of toxic chemicals, not “top-down”. They seek dialogue with people affected by toxic and dangerous products and wastes such as workers, farmers, local communities, civil society, people living in minority groups, indigenous peoples, women and others. In this regard, access to full information on chemicals is central to the meaningful participation of vulnerable groups.

Accountability

53. Rights-based approaches focus on raising levels of accountability for the effects of toxic chemicals by identifying claim holders (and their entitlements) and corresponding duty holders (and their obligations). In this regard, they look both at the positive obligations of duty holders (to protect, promote and provide) and at their negative obligations (to abstain from violations).

Empowerment

54. Rights-based approaches also give preference to strategies for empowerment of individuals, in particular the most vulnerable, over charitable responses. They focus on beneficiaries as the owners of rights, and emphasize the human person as the centre of the processes relating to regulating toxic chemicals (directly, through their advocates and through civil society organizations). The goal is to give people the power, capacities, capabilities and access needed to improve their own communities and influence their own destinies.

Non-discrimination and attention to persons in vulnerable circumstances

55. Everyone has the fundamental right to enjoy his or her life free of discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. This is a fundamental principle of human rights law.⁴² Thus rights-based approaches give particular attention the principle of non-discrimination. There is no universal checklist of who suffers most from discrimination in the context of toxic

chemicals - women, minorities, and indigenous peoples have all been identified as suffering discrimination in different contexts. Rights-based approaches require the identification of those who are vulnerable to discrimination and human rights violations and why, and promote special strategies to include them and their concerns in processes involving toxic transfers. Thus for example, human rights approaches promote the development and gathering of data that is disaggregated by race, religion, ethnicity, language, sex and other categories of human rights concern.

Explicit linkage to rights

56. A fundamental ingredient of rights-based approaches to toxic chemicals is the explicit linkage to human rights. The linkage to human rights brings a legal framework to the issue of toxic chemicals which ensures that solving the problems relating to such chemicals is more than just a good idea - it is legally enforceable. The simple but important linkage of human rights to strategies and frameworks aimed at regulating toxic transfers automatically brings into play the whole corpus of human rights norms, standards and principles - including participation, accountability, empowerment and non-discrimination.

III. REGULATORY STANDARDS AND INITIATIVES RELATING TO HAZARDOUS CHEMICALS MANAGEMENT

A. United Nations

57. At the international level, States have adopted international legally binding agreements with the aim of preventing the exposure of people and the environment to the most hazardous chemicals and to ensure that transboundary movements of chemicals and hazardous wastes can only take place subject to prior informed consent. In the context of the main focus of this report, the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Rotterdam Convention on the Prior Informed Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) are of particular relevance. However, the Basel Convention and the Ban Amendment to the Convention remain of critical importance to the Special Rapporteur's mandate and to the issues raised in this report insofar as they relate to the exposure of populations in developing countries to toxic chemicals when disposing of electronic and other types of toxic waste. Also relevant in this context is the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters,⁴³ which is the only legally binding international agreement adopting a rights-based approach to prevent and address the harmful effects on humans and the environment of chemicals and other types of pollution.⁴⁴ All these agreements have been described in detail in previous reports by the Special Rapporteur, most recently in E/CN.4/2004/46 and E/CN.4/2005/45.

B. Strategic Approach to International Chemicals Management (SAICM)

58. At the political level, the international community is currently engaged in a process aimed at developing a strategic approach to international chemicals management (SAICM).⁴⁵ The SAICM initiative was endorsed by the World Summit on Sustainable Development in 2002. The Johannesburg Plan of Implementation set a goal that, by 2020, chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment.

59. At the first session of the SAICM Preparatory Committee (PrepCom-1) in 2003, participants agreed that the overarching objective of SAICM should be to achieve, by 2020, the use and production of chemicals in ways that lead to the minimization of significant adverse effects on human health and the environment. At its second session (PrepCom-2) in 2004, the Preparatory Committee agreed that essential components of the completed Strategic Approach to International Chemicals Management would include (a) a high-level ministerial declaration; (b) an overarching policy strategy; and (c) a global plan of action, which would set out the so-called “concrete measures” for implementing SAICM. The third session of the Preparatory Committee (SAICM PrepCom-3) took place in September 2005.

60. The draft SAICM high-level declaration and the overarching policy strategy (OPS) expressly recognize the adverse effects that an unsound management of chemicals can have on human health and the well-being of individuals and communities. The draft high-level declaration states that sound chemicals management is an essential tool for the achievement of sustainable development, including the eradication of poverty and disease, the improvement of human health and the environment and the elevation and maintenance of the standard of living in countries at all levels of development.⁴⁶

61. The Special Rapporteur believes that it is important to acknowledge that sound chemical management constitutes a pre-condition for the reduction of risks to human health and the environment. However, he believes that it would be of great significance to spell out clearly in the SAICM documents that sound chemical management also contributes to the effective realization of several human rights - including the right to life, health, food, adequate housing, just and favourable working conditions and other human rights enshrined in the Universal Declaration of Human Rights and other international human rights instruments. Stressing the links between chemical safety and the realization of human rights would put human beings at the core of the SAICM, and ensure that they are regarded not as “objects” of protection, but rather as rights holders. This focus on human rights would also contribute to ensuring effective redress for any harm occurring as a result of unsafe and unnecessary exposures to chemicals.

62. A rights-based approach would entail using human rights law as a framework for the development of SAICM. Such an approach would not replace the existing objectives of the SAICM; rather, it would ensure that the established goals are achieved within the framework of human rights.

63. The current draft texts of the high-level declaration and the OPS recognize that certain groups of individuals who are particularly vulnerable to risks from hazardous chemicals or highly exposed to them (children, pregnant women, fertile populations, the elderly, the poor, and chemical industry workers) need special measures of protection.⁴⁷ Considering the central role of the non-discrimination principle in the human rights framework, the Special Rapporteur wishes to suggest that (a) a specific commitment to implement the SAICM in a non-discriminatory way be included in the draft high-level declaration, and (b) that the principles of equality and non-discrimination be included in the draft OPS among the general principles which will guide the development and the implementation of the SAICM.

64. The Special Rapporteur is of the view that an approach focusing on human rights would contribute to ensuring the effective and meaningful participation of all individuals concerned in the design, implementation, monitoring and evaluation of strategies related to chemical safety. Such an approach would in particular facilitate the participation in decision-making processes relating to chemical policy and the management of those groups that are particularly vulnerable to discrimination (e.g. women, children, indigenous people and ethnic minorities) and those disproportionately exposed to the negative impact of hazardous chemicals (such as workers, farmers, producers and transporters).

65. An effective and meaningful participation of all civil society sectors in regulatory and decision-making processes relating to chemical safety requires, *inter alia*, the availability of sufficient information and knowledge concerning chemical products. The draft OPS correctly recognizes that there is limited or no information on the possible negative effects of thousands of chemicals currently in use and the measures to be adopted to eliminate or minimize the risks associated with their handling.

66. Along with the right of access to information and the right to participate in decision-making processes, accountability can be regarded as the third pillar of good governance in the field of chemicals management. Indeed, the achievement of sound chemicals management cannot take place without the identification of duty bearers (and their obligations) and the development of mechanisms for redress.

C. New European Union regulatory system for chemicals

67. Another important development in the regulation of hazardous chemicals is the adoption by the European Council of Ministers on 13 December 2005 of a new regulatory system for chemicals in the European Union, known as REACH, which stands for “Registration, Evaluation and Authorisation of Chemicals”. REACH is designed to regulate the way in which chemicals are tested. It requires companies to register all chemicals they produce or import, and to obtain authorization for the most dangerous substances. The new system requires a more precautionary approach to chemical safety and shifts the burden to industry, so that all actors in the supply chain will be obliged to ensure the safety of the chemical substances they handle.

68. However, unlike the text adopted by the European Parliament in November 2005, the REACH proposal adopted by the European Council of Ministers did not include provisions to require companies to substitute a safe chemical for a dangerous one where an alternative exists. Although chemical producers would be required to “assess” substitutes for a hazardous chemical, decision makers will still have to grant an authorization under an “adequate control” procedure, even if safer alternatives are available. This loophole represents little change from the current system, which - according to some NGOs - has failed to control the most dangerous chemicals and hinders safe, innovative products from entering the market.

69. REACH strengthens substitution requirements for persistent and bioaccumulative chemicals, which represent only a fraction of all hazardous chemicals. However, it leaves the door open for carcinogens, chemicals that are toxic to reproduction (e.g. the phthalate DEHP) and hormone-disrupting substances (e.g. bisphenol A) to stay on the market, even if safer alternatives exist.

70. Compared to previous drafts, the REACH text adopted by the Council reduces safety data that chemical producers would be obliged to supply, particularly for substances produced in low quantities. Thousands of chemicals could thus stay on the market, despite the lack of health information. It is the view of the Special Rapporteur that this undermines the likelihood of identifying safer alternatives.

D. The Africa Stockpiles Programme (ASP)

71. At least 50,000 tons of obsolete pesticides have accumulated in stockpiles throughout the African continent over the last four decades. These chemicals threaten the environment and surrounding communities - often the poorest and most vulnerable - through the contamination of food, water, soil, and air. To address this issue, the Africa Stockpiles Programme was set up in 2000 as a partnership among the World Bank, FAO, NGOs, private foundations, industry and concerned Governments. The partners have agreed to pool resources and expertise in a collaborative, comprehensive effort to rid Africa of polluting stockpiles and prevent their recurrence. The total cost of cleanup, disposal and prevention in Africa is estimated at \$250 million over 15 years. The Special Rapporteur strongly endorses this Programme and urges donors and partners to make every effort to ensure its successful implementation.

72. The ASP complements several international legal and voluntary instruments that address chemical and hazardous material management. While developing its own criteria and objectives, the ASP will also help to advance the objectives of these conventions, including the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.⁴⁸ The Special Rapporteur urges the strengthening of the mechanisms for implementation of environmental agreements in the developing world, such as the Bamako Convention.

IV. CONCLUSIONS AND RECOMMENDATIONS

73. Following from the mandate of the Commission on Human Rights, previous reports by the Special Rapporteur have focused primarily on the adverse effects on the enjoyment of human rights of populations in developing countries from illicit movements of toxic and dangerous products and wastes. While the focus of this report has not predominantly been on the human rights violations occurring in developing countries, it is safe to say that the poor, the vulnerable and the marginalized suffer disproportionately from exposure to toxic chemicals. To name but a few examples, the poor and the vulnerable, particularly in developing countries, are exposed to chemicals banned in other parts of the world, they may lack access to medical help for health problems arising from exposure to toxic chemicals and they are more likely to lack the capacity and resources to seek effective redress for any violations of their human rights as a result of exposure to toxic chemicals. The continuing export of electronic wastes from developed to developing countries for recycling or disposal in conditions which often directly expose workers and communities to toxic chemicals is another example of the particular burden faced by individuals and communities in developing countries. It is a problem which requires urgent attention, both at the international level and at the level of both exporting and importing Governments.

74. However, notwithstanding the particular human rights concerns faced by vulnerable groups, including in developing countries, this report has attempted to illustrate that the impact of toxic chemicals is not one that can easily be contained by boundaries, be they of a geographic, political, socio-economic or generational nature. Given the proliferation of products and foods containing toxic chemicals in a globalized world, where products containing toxic chemicals as often as not are traded internationally or produced locally by subsidiaries of transnational companies, this is a truly global issue, affecting the enjoyment of human rights of individuals and communities in all parts of the world.

75. The Special Rapporteur is of the view that applying a rights-based approach to the issue of toxic chemicals would address many of the problems highlighted in this report. A fully implemented human rights approach to the management of chemicals, both at the international, regional and national levels, would ensure that individuals and communities are informed of the risks posed by hazardous chemicals in their everyday lives and empower them to participate in decision-making processes. With an emphasis on non-discrimination, a human rights approach would also ensure that particular groups and communities are not disproportionately put at risk. Finally, the right to an effective remedy would enable affected individuals and communities to seek redress and to put an end to impunity for human rights violations occurring as a result of the mismanagement of toxic chemicals.

76. **In addition to calling for the adoption of a human rights approach to chemicals management, the Special Rapporteur would like to make the following recommendations:**

- **Victims of human rights violations arising from actions or omissions by transnational corporations should be allowed to seek redress in the home country jurisdiction, and home country Governments should ensure that transnational corporations domiciled in their countries be held to account for violating human rights standards;**
- **The SAICM outcome documents should include the protection and promotion of human rights among the objectives of SAICM and reflect the links between chemicals management and the effective realization of several human rights;**
- **Considering the central role of the non-discrimination principle in the human rights framework, it would be advisable that (i) a specific commitment to implement the SAICM in a non-discriminatory way be included in the draft high-level declaration, and (ii) that the principles of equality and non-discrimination be included in the draft OPS among the general principles which will guide the development and the implementation of the SAICM;**
- **The European Union's REACH regulatory framework should be amended to require substitution of dangerous products wherever possible;**
- **The Special Rapporteur strongly endorses the Africa Stockpile Programme and urges donors and partners to make every effort to ensure its successful implementation;**

- **The Special Rapporteur also urges States parties to environmental agreements (e.g. the Bamako Convention) in the developing countries to strengthen their implementation mechanisms to ensure the protection of the rights of individuals and communities threatened by the illicit movement and dumping of toxic products and wastes;**
- **Lastly, to facilitate the successful implementation of his mandate, the Special Rapporteur urges Governments to cooperate and to extend invitations for country visits when approached with requests to do so.**

Notes

¹ The following reports have previously been submitted to the Commission by Special Rapporteurs pursuant to this mandate: E/CN.4/1996/17, E/CN.4/1997/19, E/CN.4/1998/10 and Add.1 and Add.2 (report from mission to South Africa, Kenya and Ethiopia), E/CN.4/1999/46 and Add.1 (report from mission to Paraguay, Brazil, Costa Rica and Mexico), E/CN.4/2000/50 and Add.1 (report from mission to the Netherlands and Germany), E/CN.4/2001/55 and Add.1, E/CN.4/2002/61, E/CN.4/2003/56 and Add.1 (report from mission to the United States of America) and Add.2 (report from mission to Canada), E/CN.4/2004/46 and Add.1 (report from mission to the United Kingdom of Great Britain and Northern Ireland) and E/CN.4/2005/45 and Add.1.

² E/CN.4/2005/res.15, OP 15.

³ United Nations Environment Programme, *After the Tsunami: Rapid Environmental Assessment*, 2005.

⁴ E/CN.4/2005/res.15.

⁵ See most recently, E/CN.4/2004/46, paras. 29-43.

⁶ Draft WHO guidelines on the management of public health pesticides, WHO/CDS/WHOPES/2003.7, page 4.

⁷ Ibid.

⁸ Long-Term Monitoring: the impact of pesticides on the people and the eco-system, Part III of the Report, Thanal, India, 2002.

⁹ See <http://www.who.int/ceh/risks/cehchemicals/en/>, accessed 9 January 2006.

¹⁰ Quoted in “Endocrine Disrupting Chemicals - WWF Position Statement - January 2000”.

¹¹ Marc G. Weisskopf et al., *Decreased sex ratio following maternal exposure to polychlorinated biphenyls from contaminated Great Lakes sport-caught fish: a retrospective cohort study*, 12 March 2003, available at <http://www.ejournal.net/content/2/1/2>.

- ¹² “Exposure to Nonpersistent Insecticides and Male Reproductive Hormones”, John D. Meeker; Louise Ryan; Dana B. Barr; Russ Hauser, *Epidemiology*, January 2006, vol. 17, issue 1, p. 61.
- ¹³ See H. J. Pluim et al., *Clinical laboratory manifestations of exposure to background levels of dioxins in the perinatal period*, *Acta Paediatrica*, (1994) vol. 83, pp. 583-587.
- ¹⁴ UNEP, UNICEF and WHO, *Children in the New Millennium: Environmental Impact on Health*, 2002.
- ¹⁵ <http://www.who.int/ceh/risks/cehchemicals2/en/print.html>, accessed 9 January 2006.
- ¹⁶ WWF-UK and Greenpeace Netherlands, *A Present for Life - hazardous chemicals in umbilical cord blood*, 2005.
- ¹⁷ “Generations X - Results of WWF’s European Family Biomonitoring Survey”, WWF DetoX Campaign, 2005. The study was carried out with the support of the EPHA Environment Network and the European Community of Consumer Cooperatives.
- ¹⁸ Fire-Retardant, Polybrominated diphenyl ethers (PBDEs), UNEP Chemicals, Regional Reports of the Regionally Based Assessment of Persistent Toxic Substances (2002).
- ¹⁹ “Second National Report on Human Exposure to Environmental Chemicals, Centers for Disease Control and Prevention, 2003. The report reflects the results of testing 9,282 people for the presence in their bodies of 116 chemicals, including 34 pesticides. The people tested were not associated with the agricultural sector.
- ²⁰ Potential negative impacts of foetal exposure include reduced infant birth weight, reproductive problems including low sperm counts and other fertility problems later in life and disruption of neurological development during infancy, potentially leading to learning disabilities and other neurobehavioural problems.
- ²¹ Environmental Working Group, *Body Burden; the Pollution in People* January 2003. Available at <http://www.ewg.org/reports/bodyburden/>, accessed 12 January 2006.
- ²² “Clouds of injustice - Bhopal disaster 20 years on”, Amnesty International Publications (2004).
- ²³ Human Rights Committee, general comment No. 6 (The right to life), 1982, para. 1.
- ²⁴ M. Nowak, *U.N. Covenant on Civil and Political Rights - CCPR Commentary*, 2nd revised edition, 2005, p. 121.
- ²⁵ R. Churchill, *Environmental rights in existing human rights treaties*, in A.E. Boyle and M.R. Anderson, *Human rights approaches to environmental protection*, Oxford, 1996, p. 90.
- ²⁶ Human Rights Committee, general comment No. 6, cit., para. 5.

²⁷ Committee on Economic, Social and Cultural Rights, general comment No. 14 (The right to the highest attainable standard of health), 2000, para. 8.

²⁸ *Ibid.*, para. 4.

²⁹ Committee on Economic, Social and Cultural Rights, general comment No. 12 (The right to adequate food), 1999, para. 6.

³⁰ *Ibid.*, para. 10.

³¹ “Clouds of injustice”, *ibid.*, note 225, p. 50.

³² M. Nowak, *U.N. Covenant on Civil and Political Rights - CCPR Commentary*, 2nd revised edition, N.P. Engel, 2005, p. 447.

³³ *Ibid.*

³⁴ Adopted in Aarhus, Denmark, June 1998, entered into force on 30 October 2001.

³⁵ Committee on Economic, Social and Cultural Rights general comment 14, *ibid.*, note 30.

³⁶ See declaration on website of Sony Ericsson http://www.sonyericsson.com/spg.jsp?cc=global&lc=en&ver=4001&template=pc1_5_2&zone=pc&lm=pc1, accessed 12 January 2006.

³⁷ Resolution 2005/69.

³⁸ *Ibid.*, operative paragraph 1 (b).

³⁹ See for a comprehensive analysis E/CN.4/2001/55, paras. 43-57. See also E/CN.4/2004/57-67.

⁴⁰ E/CN.4/Sub.2/2003/12/Rev.2. The draft Norms were adopted by the Sub-Commission on the Promotion and Protection of Human Rights. The Commission on Human Rights, in its decision 2004/116, took note of the Norms and expressed its appreciation to the Sub-Commission for the work it had undertaken in preparing the draft Norms which, in the words of the CHR decision, “contain useful elements and ideas for consideration by the Commission”. The Commission also affirmed that document E/CN.4/Sub.2/2003/12/Rev.2 has no legal standing and that the Sub-Commission should not perform any monitoring function in this regard.

⁴¹ Resolution 2005/69, operative paragraph 1 (a).

⁴² See article 2 of both the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights.

⁴³ Developed under the auspices of the United Nations Economic Commission for Europe, but open for ratification by countries from other regions.

⁴⁴ See for more detail about this Convention, developed by the United Nations Economic Commission for Europe, but open for ratification by all United Nations Member States, E/CN.4/2004/46.

⁴⁵ In February 2002, the UNEP Governing Council adopted decision SS.VII/3, in which it decided that there was a need to develop further a strategic approach to international chemicals management (SAICM). The decision requested UNEP to work in consultation and collaboration with Governments, participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), the Intergovernmental Forum on Chemical Safety (IFCS) and other stakeholders.

⁴⁶ SAICM/PREPCOM.3/CRP.39, para. 1.

⁴⁷ SAICM/PREPCOM.3/CRP.39, paras. 6 and 20; SAICM/PREPCOM.3/3, paras. 7 and 14.

⁴⁸ Adopted 30 January 1991 in Bamako, Mali. Participation is limited to members of the African Union.
