

E/1994/104/Add.26
14 July 2003

ENGLISH
Original : SPANISH

ECONOMIC AND SOCIAL COUNCIL
Regular session of 2004

IMPLEMENTATION OF THE INTERNATIONAL COVENANT
ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS

Third periodic reports submitted by States parties
in accordance with Articles 16 and 17 of the Covenant
Addendum

CHILE *, **

[10 July 2003]

* The second periodic reports concerning rights covered by Articles 6 to 9 (E/1984/8/Add.1) and Articles 10 to 12 (E/1986/4/Add.18) of the Covenant were considered by the Working Group of Government Experts of the Economic and Social Council in 1984 (see documents E/1984/WG.1/Sr. 11-12) and by the Committee on Economic, Social and Cultural Rights at its second regular session of 1988 (see documents E/C.12/1988/SR.12-13 and 16).

** The information submitted in accordance with the consolidated guidelines relating to the initial part of State party reports is contained in the core document HRI/CORE/1/Add.103.

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816. Article 19, section 10, of the Constitution provides that "*it shall [...] be the duty of the State to promote the development of education at all levels and to encourage scientific and technological research, creative activity and the protection and promotion of the Nation's cultural heritage*".

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Measures for the realization of the right to enjoy the benefits of scientific progress and its applications

848. The Constitution gives the State responsibility for promoting scientific and technological research. One of the three main functions of Chile's universities is scientific research; in addition to their own resources, they receive State support as described below. They carry out most of the scientific and technological research in

Chile. The National Commission for Scientific and Technological Research (CONICYT), an independent public institution with links to the Ministry of Education, has responsibility for the National Fund for Scientific and Technological Research (FONDECYT), which finances research projects submitted by individuals or teams from the universities and other areas, through annual competitions judged by adjudicators from the scientific community itself.

849. Other State initiatives aimed at fostering scientific and technological development have been pursued over the last decade. These include the Fund for the Promotion of Scientific and Technological Development (FONDEF), based within CONICYT, which was established in 1991 with the aim of helping enhance competitiveness in the main sectors of the Chilean economy by strengthening national scientific and technological capabilities. As part of its mandate, FONDEF endeavours to strengthen links between universities and research institutions and business. Its objectives are:

(a) To increase the quantity and quality of research and the provision of scientific and technological services with a significant impact on productive activities;

(b) To boost the transfer of know-how to the production sector through interaction, collaboration and implementation of projects conducted jointly by research and development units and Chilean businesses;

(c) To enhance Chile's specialization in research and development in priority areas of significant social benefit and national interest.

850. The purpose of the Funds for Advanced Studies in Priority Areas (FONDAP) is to encourage teamwork by groups of researchers in thematic areas to which the Government has decided to attach priority, where national scientific endeavours have achieved a high-level and where there are substantial numbers of researchers of proven productivity. The FONDAP programmes are focused on one scientific problem or group of problems. The Research is more likely to produce if it is multidisciplinary (where appropriate) and enjoys long-term funding. The research includes an educational component, which is also a basic feature of these Programmes. In 1996 an oceanography and marine biology programme and an applied mathematics programme were set up under FONDAP. Biomedicine and materials sciences programmes were financed in 1999.

851. The National Fund for Technological and Productive Development (FONTEC) was established in 1992 under the 1992-1995 Science and Technology Programme of the Production Development Corporation (CORFO). Its purpose is to enable private enterprises to invest more rapidly in innovation and it is directed at all private enterprises in the national production sector with a level of development in economic and technical terms such that they can share the risks and profit of technological innovation. At the present time its tasks are:

(a) To promote and finance the implementation of projects involving innovation and the transfer and purchase of technological infrastructure, carried out by private enterprises; and

(b) To support the scaling up of the production and marketing of projects derived from an innovative process.

852. The Development and Innovation Fund (FDI) was established in 1995 as a CORFO committee, with the title of Fund for Public Service and Interest Research Programmes and Projects. When established it was only available for financing projects from the CORFO Institutes. In 1996 it ceased to deal exclusively with the CORFO Institutes and the first national projects competition was held; it was open to Chilean technological institutes and centres, incorporated thematic tendering procedures and was included in the Technological Innovation Programme. In 1997 the Fund's mission and scope of action was redefined and its name changed to FDI. FDI's current role is to promote initiatives which make a substantive contribution to generating and managing processes of innovation and technological change in areas of strategic impact on Chile's economic and social development, in conjunction with public and private technological centres. At the same time, the Fund seeks to serve as a strategic instrument in CORFO's mission of stimulating production and contributing to improving the links between the main stakeholders in national technological development.

853. The Fisheries Research Fund (FIP)³³⁵ is an institution governed by the Fisheries Research Council. It was set up to finance fishery and agricultural research projects whose findings would supplement the information required for the adoption of measures in the field of fisheries management and aquaculture. The main objective of the latter is the conservation of hydrobiological resources, taking into account biological factors, fisheries considerations and economic and social aspects. The Fund is financed by allocations under the annual Budget Act, advance payments by industrial fisheries operators and fish farmers for fishery and aquaculture licences, and other contributions earmarked for the purpose.

854. The Mining Research Fund (FIM), established in 1996 as part of the Centre for Mining and Metallurgical Research (CIMM), was incorporated into the Technical Innovation Programme in 1997. It is financed with capital contributions from enterprises in the sector, such as the Copper Corporation (CODELCO) and the Escondida, Zaldívar and Cerro Colorado mining companies, through the International Copper Association (ICA). The Fund's main purpose is to carry out scientific research on copper and its by-products.

855. The objective of the Millennium Scientific Initiative³³⁶ is to contribute to making the most of human capabilities for scientific and technological research as a key factor in long-term sustainable economic and social development. The Initiative is aimed at the training of teams, particularly of young people, to levels of international academic and scientific excellence in research, starting with the few of high-level specialists to be found in Chile. Efforts are made to provide a satisfactory environment (equipment,

remuneration, critical mass of professionals, etc.) so that the best scientists, as part of an international network of excellence, can express their potential within an independent, transparent, flexible and efficient system. It is hoped that the customary “brain drain” to foreign countries will be reduced in this way and that Chilean and foreign scientists based in other countries will be interested in returning and contributing to the national system of scientific and technological research. The Initiative’s close links and coordination with the valuable system of institutions that already exists (among others, the Ministry of Education, universities and national research institutes), will have an additional impact and provide synergy, helping to strengthen these institutions and Chile’s research and development system. The aim of the programme is innovative reform of national scientific and technological activity.

856. CONICYT has also established a post-doctoral research programme to incorporate young researchers into the national system of research. The aim of this programme is to stimulate the scientific productivity and independence of researchers who have recently obtained their doctorates, enabling them to devote themselves exclusively to research. As part of this undertaking, CONICYT has also increased its postgraduate fellowships and organized new educational opportunities (to include international cooperation, joint tutor fellowships and thesis completion fellowships).

857. In support of this effort, public funds earmarked for research and development were substantially increased from US\$ 159.4 million in 1990 to US\$ 500 million in 1999.

Conservation of the natural heritage of mankind and promotion of a clear and healthy environment

858. The Constitution guarantees all Chileans *“the right to live in an unpolluted environment. It is the duty of the State to ensure that this right is not jeopardized and to promote the conservation of nature”*.³³⁷

859. The Environment (Framework) Act³³⁸ forms part of the institutional infrastructure whose purpose is to set out measures for the conservation of the natural heritage of mankind and the promotion of a clean and healthy environment. This Act provides the legal framework for the protection of the environment in Chile, expressly acknowledging the *“right to live in an unpolluted environment, the protection of the environment, the preservation of nature and conservation of the environmental heritage.”* The Act defines and regulates each of these aspects, although it may also be supplemented by other provisions. Within this institutional structure, the National Environment Commission (CONAMA) was established with a management and supervisory role in environmental policy in Chile, as a functionally decentralized public service with juridical personality and its own assets, reporting to the President through the Office of the Minister-Secretary General of the Presidency. In order to enhance its performance, CONAMA is decentralized into Regional Environment Commissions, which are responsible for the environmental policies of each region.

860. The Environment (Framework) Act contains a set of environmental management tools. First and foremost among these are education and research, the latter supported by

the Fund for Scientific Research and Technological and Social Development, the purpose of which is to finance projects concerning the environment. Secondly, the Environmental Impact Evaluation System was created as a preventive management tool to be applied to all public or private projects or activities established by law which may have an impact on the environment. This enables the consequences of projects to be anticipated and to be countered and minimized by measures of mitigation, reparation or compensation. Depending on the characteristics and effects of the project, an environmental impact statement or environmental impact study will be required. Although initially this system applied only voluntarily, in 1997 it became mandatory when the Regulations on Environmental Impact Assessment³³⁹ were issued. The environmental impact assessment procedure established under these Regulations includes machinery for informed and organized participation by the public, as stipulated for each specific case depending on the project being evaluated. Provision is also made for a Plan for Measures of Mitigation, Reparation and Compensation, an Environmental Monitoring Plan and the supervision of each of the projects or activities.

861. Standards for environmental quality and for the preservation of nature and conservation of the cultural heritage established by law for general implementation throughout the country constitute a third environmental management tool. The aim of these standards is to define emergency situations in terms of thresholds. The procedure to be followed for issuing such standards is regulated by law.³⁴⁰ Foremost among the environmental quality standards issued in accordance with the statutory procedure is the primary quality standard for inhaled PM 10 particles, and in particular the values which correspond to emergency situations.³⁴¹

862. Fourthly, emissions standards are adopted as an environmental management tool and will be specified in a Supreme Decree, which will determine their geographical scope of application. These emissions standards indicate the maximum permitted quantity of a pollutant measured in the outflow of the emitting source. The procedure for issuing these standards can be found in the relevant regulations.³⁴²

863. Existing emissions standards include the following:

(a) Supreme Decree No. 146, of 1997, of the Office of the Minister-Secretary General of the Presidency, containing an emissions standard for unpleasant noise from fixed sources, based on the revision of the emissions standard contained in Ministry of Health decree No. 286 of 1984;

(b) Supreme Decree No. 686, of 7 December 1998, of the Ministry of the Economy, Development and Reconstruction, establishing an emissions standard for the regulation of light pollution, published in the *Diario Oficial* of 2 August 1999;

(c) Supreme Decree No. 609, of 20 July 1998, establishing an emissions standard for the regulation of pollutants associated with the discharge of industrial effluent into sewage systems;

(d) Supreme Decree No. 165, on air pollution, signed by the Ministries of Health and Agriculture and the Office of the Minister-Secretary General of the Presidency, establishing an emissions standard for the regulation of arsenic emissions into the atmosphere.

(e) Supreme Decree No. 167, on air pollution, establishing an emissions standard for unpleasant odours associated with the manufacture of sulphate pulp, of 1 April 2000.

864. Fifthly, the Environment (Framework) Act covers the areas of handling, prevention and decontamination. The regulations governing the procedure for and stages involved in drawing up prevention and decontamination plans are in force.³⁴³ The decontamination plan is a tool intended to bring about a return to the levels set out in the quality standards in heavily polluted areas, while the prevention plan is aimed at preventing one or more environmental quality standards from being exceeded in areas of potential pollution.

865. Chile has signed both the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. It has also ratified the various amendments to the Protocol, specifically the London (1990), Copenhagen (1992), Montreal (1997) and Beijing (1999) amendments. In 1993, Chile submitted to the Multilateral Fund for the Implementation of the Montreal Protocol a country programme for the protection of the ozone layer, which was approved and financed by the World Bank. The programme has been implemented by the National Environment Commission (CONAMA) since 1994.

Climate change

866. The Government of Chile signed the United Nations Framework Convention on Climate Change during the Earth Summit. It was ratified by the National Congress on 24 December 1994 and published in the *Diario Oficial* of 13 April of the following year as a law of the Republic.

867. The National Advisory Committee on Global Change was set up on 29 May 1996 and formalized its structure in April 1998. Its duties are to advise the National Environment Commission on implementing commitments under the Convention on Climate Change, and to advise the Ministry of Foreign Affairs on the position to be taken by Chile on the decisions adopted by the Conference of the Parties to the Convention. This Committee is made up of various Government institutions, the private sector, NGOs and academics. The Committee's work has focused on discussing issues raised in subsidiary bodies of the Convention and meetings of the Conference of the Parties.

868. Through the work strategy in this area approved by the Governing Board of CONAMA, the Government has committed itself to taking action to deal with the problem of climate change, including more prompt and active participation on the part of Chile in finding a solution to this global problem, ratification of the Kyoto Protocol, use of the Clean Development Mechanism and analysis of advantages and possible voluntary

commitments, drafting of a national action plan for climate change and the creation of a fund for pertinent scientific and technological research.

Environmental standards

869. In addition to the environmental provisions mentioned above, priority is given to a total of 28 quality and emissions standards, which provide a framework for the regulation of air, noise, water and solid waste pollution. The standards are at different stages of progress towards official promulgation, and they are expected to enter into force within the next three years.

Other activities

870. The Ministry of Health has set up an Environmental Health Division, which regulates and coordinates matters concerning human health and the environment through the Departments of Environmental Programmes located in 23 health services throughout Chile. In addition, the Metropolitan Environmental Health Service, in coordination with the National Environment Commission (CONAMA) and other State and private bodies, provides information on progress in scientific knowledge of the environment and its relation to human health.

871. In 1992, the Ministry of National Assets established the Environment Technical Unit, which as part of its activities carries out sectoral and intersectoral studies and projects in this regard. Through its National Assets Divisions and the State Property Survey – which includes the Department of Territorial Studies and the Division for the Constitution of Real Estate through the Indigenous Unit – it has for some years been carrying out studies and programmes on the conservation of the natural heritage of mankind and promoting the appropriate preservation of the environment.

872. A second programme related to the first is being implemented in parallel; it focuses on the management of State-owned land viewed as public spaces. This programme acknowledges the natural environmental heritage of each locality, assigning value to its development in harmony with its environment, earmarking land for public use and highlighting the creation of common areas in a context of urban land shortages. The Ministry's goal is to improve the quality of life of the inhabitants, permit harmonious development together with care and conservation of the environment and ensure free access to and use and enjoyment of shared assets for existing and future generations.

Measures to promote the dissemination of information on scientific progress

873. The Ministry of Education has implemented a series of measures:

(a) Creation of programmes, such as the Explorer Programme and all its subprogrammes, intended to popularise science by encouraging the interest of young people in scientific matters;

(b) Establishment of the National University Network, a programme intended to provide Chile's public universities with high-speed Internet connections and develop programmes using broadband communications systems;

(c) A large increase in Internet providers and sites with information on national science and technology programmes;

(d) Implementation by CONICYT and all the universities of online science and technology information programmes via the Internet. Internet access to all information on State-financed research projects;

(e) Access to primary information on scientific topics produced by all State bodies, via the Internet;

(f) Implementation of a programme for the publication of national scientific reviews in electronic format;

(g) Access to all national legislation via the Internet;

(h) Implementation of distance learning programmes. These include the Ministry of Education's *Enlaces* programme, which links all Chile's secondary education centres and half of its basic schools in a network with the data banks of universities and other institutions and, more recently, with the Internet.

874. The formal education system is also making a contribution in this area. Between the first and fourth grades, basic education includes mathematics and "understanding the natural and social environment"; in the fifth and ninth grades, this is divided into two sectors: "understanding the natural environment" and "understanding the social environment". "Technological education" is also introduced and extended until the first and second grades of secondary school. Science education proper appears here in varying proportions: mathematics, natural sciences, history and social sciences, biology, physics, chemistry, etc., which educational establishments are free to select. Technological education is diversified in the third and fourth year of secondary technical and vocational education, which is organized into 44 areas of specialization linked to 13 major vocational sectors.

Measures to prevent the use of scientific and technological progress for purposes contrary to the enjoyment of all human rights

875. There is no specific legislation banning or criminalizing the use of scientific and technological progress for purposes contrary to human rights - merely the general provisions of the Constitution concerning the acknowledged rights of all Chilean citizens.

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Promotion of the enjoyment of freedom for scientific research and creative activity, including the creation of all the conditions and facilities required for such activities

886. The Education Organization Act specifically acknowledges freedom of scientific research as an intrinsic element of the administrative and academic independence of higher education institutions. The State creates the conditions and facilities required through an education policy aimed at the extension and improvement of basic, secondary and higher education, the inclusion in the curriculum of objectives and subject matter relating to the sciences, humanities and arts; and the science and culture policy described above.

887. In addition to the above, legal entities and private individuals collaborate in or encourage the processes which generate scientific knowledge and works of art. Private contributions are stimulated in part by State initiatives and mechanisms, such as tax incentives for donations for cultural or educational purposes, and joint efforts by businesses, the universities and the State in promoting scientific and technological research.

Measures to ensure the free exchange of scientific, technological and cultural information, opinions and experience among scientists, writers, creative workers, artists and other creative individuals and their institutions

888. Freedom of exchange between scientists and creative artists is not inhibited by legal provisions in a democratic system under the rule of law. In Chile freedom of opinion and information is respected without prior censorship, including the freedom to found, publish and run newspapers, magazines and periodicals. Freedom of assembly and association similarly exist. The areas and mechanisms of exchange that can be used by the above-mentioned cultural stakeholders function without legal or political restrictions.

Measures in support of cultural associations, academies of science, professional associations, workers' unions and other organizations and institutions dedicated to scientific research and creative activities

889. No major policy exists for the support of such bodies, with the exception of a State subsidy for the Instituto de Chile, which groups together academies of natural and social sciences and humanist academies, which are selective and comprise a limited number of scientists and intellectuals. CONICYT also provides financing on a smaller scale for academic meetings organized by scientific societies, but not for the operating costs of these bodies.

³³⁵ Established under the General Fisheries and Aquaculture Act, No. 18,892, promulgated on 6 September 1991, as amended; the redrafted text was established under Supreme Decree No. 430 of the Ministry of the Economy.

336 Created and formalized through Supreme Decree No. 151/99 adopted by the Ministry of Planning and Cooperation.

337 Article 19, section 8.

338 Act No 19,300, promulgated on 1 March 1994.

339 Adopted by Supreme Decree No. 30 of the Office of the Minister-Secretary General of the Presidency, published on 3 April 1997.

340 Regulations for the Issue of Environmental Quality and Emissions Standards, approved by Supreme Decree No. 93, of 15 May 1995, of the Office of the Minister-Secretary General of the Presidency, published in the *Diario Oficial* of 26 October 1995.

341 Supreme Decree No. 59 of 1998, of the Office of the Minister-Secretary General of the Presidency, published in the *Diario Oficial* of 25 May 1998. This standard is currently being revised.

342 Supreme Decree No. 93, of 15 May 1995, of the Office of the Minister-Secretary General of the Presidency.

343 Contained in Supreme Decree No. 94, of 15 May 1995, of the Office of the Minister-Secretary General of the Presidency.