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

**Initial reports submitted by States parties under  
articles 16 and 17 of the Covenant**

**Addendum  
PEOPLE'S REPUBLIC OF CHINA\***

[27 June 2003]

\* The information submitted by the People's Republic of China in accordance with the guidelines concerning the initial part of reports of States parties is contained in the core document (HRI/CORE/1/Add.21/Rev.2).

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**The right to cultural life and the benefits of science**

233. Article 47 of the Constitution clearly states that:

“Citizens of the People's Republic of China have freedom to engage in scientific research, literary and artistic creation and other cultural pursuits. The State encourages and assists creative endeavours conducive to the interests of the people that are made by citizens engaged in education, science, technology, literature, art and other cultural work.”

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264. The development of science and technology is crucial to improving the quality of life, promoting and protecting human rights and realizing universal equality. The motto “*In building socialist modernization, priority is given to the development of science and technology*” is the rational choice of the Government of China, and on 2 July 1993, at the second session of the Standing Committee of the 8th National People's Congress, this policy was acknowledged with the passage of the Progress in Science and Technology Act.

265. China actively advocates a scientifically oriented social climate and seeks to root out any kind of unscientific or anti-scientific consciousness that may interfere with scientific and technological activities. In this way, it guarantees a scholarly approach to science and technology and diversification in research methods, which help to bring Chinese science and technology into the ranks of the advanced world. Consciousness of science and technology is promoted on a national scale, as this is an important way of encouraging progress and raising the level of general culture among the workers.

266. As stipulated in national regulations, institutes of research and development enjoy autonomy in their research, their production management, their utilization of funds, their institutional structure and their hiring practices. They may in addition take any action permitted by the regulations to raise funds for research and development from within society so as to promote and safeguard unhindered progress in science and technology. Chinese law stipulates that science and technology workers have the right to found or to join legally constituted scientific and technical organizations. Such organizations can have a positive effect on the development of scientific disciplines, the spread of scientific and technical knowledge, the training of specialized personnel, the development of consulting services, the promotion of academic exchanges and the protection of the legal rights and interests of workers in these fields.

267. Both the Constitution of China and the Progress in Science and Technology Act make clear the social status and such specific rights as the working and living conditions due to workers in these fields. All levels of government, enterprises and organizations are working to progressively improve the salary and benefits offered to science and technology workers, to improve their working and living conditions and to offer generous pay and benefits to workers who make an outstanding contribution to their work. They are creating conditions allowing for reasonable movement of such workers so as to give full play to their specialized abilities. Meanwhile, special allowances as stipulated in government regulations are granted to science and technology workers who are engaged in pure research, applied research and high-technology research; who are working on major engineering and construction projects; who are engaged in important, leading-edge research and studies of significant benefit to society; whose work takes them to impoverished rural areas or to minority-nationality regions, or whose work is conducted in an adverse or hazardous environment.

268. Since the beginning of the era of liberal reforms, China has issued and revised several sets of regulations offering material incentives to workers in science and technology: regulations on rewarding inventions, on rewards in the natural sciences, on rewards for progress in science and technology and for logical suggestions and technological innovations, etc. The Progress in Science and Technology Act codifies Chinese practice in offering such incentives and enshrines the principle in law. In 1999, the State Council issued regulations on national rewards for science and technology which modified the reward system and increased the rewards made to people with significant achievements in driving progress in science and technology or spreading knowledge in these fields. Winners of the highest national prize for science and technology, for example, are each granted 5 million yuan, while the first-class national

natural sciences awards, technological invention awards and scientific and technological progress awards are worth 90,000 yuan each, and their second-class counterparts, 60,000 yuan.

269. Scientific and technological exchanges and cooperation with foreign Governments and international organizations are a favoured means of encouraging research and development institutions, institutes of higher education, social organizations and workers in scientific fields to establish cooperative relations of all types with their counterparts abroad. The Government has instituted an International Scientific and Technological Cooperation Award which is bestowed on a scientist from abroad who has made a significant contribution to the development of science and to human civilization in the name of international scientific exchanges and cooperation.

270. The Government of China has invested in the construction of a great many basic facilities for the popularization of science. By the year 2000, China had 425 scientific and technological centres, including the National Centre for Science and Technology and 29 similar institutions at the provincial level. Some 100 youth science and technology education centres had been designated, as had 200 national popular science and technology education centres. These work in conjunction with the major institutions to stage exhibitions, presentations of reports, seminars, training courses, experiments and other activities, and have been prominent in the popularization of scientific knowledge and the dissemination of scientific thought and methods. China also produces and publishes a great many popular scientific periodicals and books: almost 300 scientific, engineering, agricultural, medical and general-interest periodicals targeting different social strata and occupations are published nationwide. In the 1980s, China published some 20,000 scientific titles, an average of 2,000 per year, with basic sciences accounting for 23 per cent, engineering technology for 29 per cent, agricultural technology for 20 per cent, medicine and health for 12 per cent, and interdisciplinary and multidisciplinary material for 16 per cent. After 1990, science publications grew to an average of 4,000 titles per year and now range between 7,000 and 8,000 titles per year. There are also some 200 scientific and technological journals and over 300 magazines, while many newspapers and periodicals of other types have introduced lively, interesting and informative science sections. Many large newspapers have reintroduced or launched special science supplements or even special editions. Some scientific and professional newspapers have increased the size of their science supplements or their frequency of publication, and each can lay claim to legions of enthusiastic and devoted readers.

271. Science-oriented radio programmes have increased in length and in frequency, changing their titles and increasing their content. In addition, they have established various types of phone-in lines and advisory services, thus transforming a unidirectional mode of communication into a bidirectional flow of information and providing deeper and more animated explanations of topical scientific issues of general interest. Certain programmes have become listener favourites, and the phones start ringing with listener queries every few seconds once the broadcast begins. In the 20-odd years since reforms began, the main channels of almost every television station of provincial, city or higher level have begun to carry popular science and technology programmes. Thousands of

science-education films have been produced nationwide. Between 1950 and 1978, China produced 1,328 science-education films; between 1979 and 1993, it produced 2,500. The Beijing Science-Education Film Studio alone produced over 900 films between 1960 and 1996. China has already set up over 100 popular science-oriented web sites and several dozen more of a specialized nature.

272. Neighbourhoods across the country are increasingly acquiring science-oriented shopping streets, science and civilization parks, science-theme attraction streets, science-and-civilization residents' committees, science-information streets, science bulletin boards and model scientific families. The scientific orientation of some neighbourhoods has been incorporated into governmental work with unified planning and approval, in such a way that the popularization of science has penetrated into every type of social service network. These science-oriented measures in city neighbourhoods are closely coordinated with residents' studies, lifestyles and work; pertinent lectures, exhibitions, training, competitions, science-oriented outings and other such activities engage local residents extensively in the popularization of science. Meanwhile, science classes and scientifically based exercise are laid on for retirees so as to give them a role in promoting the popularization of science.

273. To improve scientific standards among China's farmers, in 1986 the National Science Commission put into effect the first rural economic development plan to be based on science and technology, the Meteor Plan. By bringing advanced technology to rural communities, the Plan induced hundreds of millions of peasants to rely on technology to develop the rural economy, guided technological progress in rural enterprises, promoted a general improvement in rural workers' abilities and fostered sustained, rapid and healthy development of agriculture and the rural economy. By the end of 1995, some 66,736 projects had been initiated under the Meteor Plan nationwide, and 35,254 completed. Total investment was in the order of 93.76 billion yuan and projects were under way in more than 85 per cent of the nation's counties. The value of production through Meteor Plan projects in 1995 amounted to 268.27 billion yuan, which provided 47.39 billion yuan in tax revenue and earned some US\$ 8.89 billion in foreign exchange. Ten government departments organized a joint culture, technology and sanitation campaign in rural areas which brought together technologists of all types and levels, technical and agricultural departments, and the China Association for Science and Technology. This campaign penetrated deep into the countryside, teaching farmers technological methods, providing training, instructing people in productive living and popularizing scientific knowledge. According to incomplete statistics, by 1998, some 962,000 technologist-visits had been made to rural areas, 47.79 million items of technological material had been freely distributed, 496,000 technological meetings had been held, more than 95 million farmers had attended technological training sessions, and 1 million rural technicians had been trained. The part that progress in farming technology contributed to growth in the agricultural economy rose from 34.28 per cent in 1995 to roughly 40 per cent in 1998.

274. In 1994, the Government put out suggestions for intensifying efforts to popularize science and technology, which plainly stated its intention to "generalize scientific and

cultural education, and lead the people into scientific modes of production and lifestyles” and made it an important duty to “favour the building of socialist material civilization and spiritual civilization through reliance on scientific and technological progress and the dissemination of knowledge”. The Government formed a Joint Conference for the Popularization of Science with the participation of 19 departments, which proceeded to issue the Popularization of Science and Technology Programme for the Ninth 5-Year Plan, the 2000-2005 Working Programme for the Popularization of Science and Technology and the Development Programme for the Popularization of Science and Technology during the Tenth 5-Year Plan among other major documents. In 2001, the Government decided that, as of that year, the third week of May would be designated “National Science and Technology Week” during which mass activities with a scientific orientation would be conducted. In 1996, 1999 and 2002, it convened national conferences on the popularization of science and technology to map out the work to be done nationwide, specify aims and objectives, identify the authorities responsible and press for standardized implementation. On 29 June 2002, it promulgated the Popularization of Science and Technology Act to set popularization efforts on a legal course and promote and regulate the associated activities in accordance with the law.

275. The central financial administration has increased its investment in the popularization of science, and other departments have set funds aside for the purpose in their own areas of responsibility. Regional governments have greatly increased their budgets for this work, and governments at all levels have increased their investment in the construction of science and technology centres and related facilities. Since the Seventh 5-Year Plan, the Government of China has invested more than 3 billion yuan in the construction of science and technology centres nationwide. Some of these, such as the China Science and Technology Centre and the Tianjin Science and Technology Centre, are of an international standard.

276. Since the founding of China Science (the precursor to the current China Association for Science and Technology) in 1950, China’s scientific organizations have run a variety of campaigns to popularize science and technology. These have included programmes for the country’s 900 million rural inhabitants such as “Sending Technology to the Countryside” and “Winter of Science”, programmes addressing young people such as the “Spreading Science Campaign”, the Science and Technology Innovation Contest and summer and winter science theme camps, lecture programmes for the nation’s leading cadres such as the “Hundred Reports from a Hundred Academicians” series, and other seminars and lectures. The Thousand Factories, Thousand Clubs Campaign addressed technological innovation in the nation’s large industrial enterprises, while national academies have launched advisory, diagnostic and trouble-shooting services for State-sector enterprises. Collectively, these initiatives have done much to increase public scientific awareness and have helped to create a generally favourable social atmosphere of respect for and confidence in science.

277. For the past 50 years, the Chinese Academy of Sciences has paid great attention to the popularization of science and has initiated a great many projects that have coalesced into a system that includes management, research, dissemination and education in

science-related areas. Its initiatives include “Pointers and Models for Research Facilities Embarking on the Popularization of Science”, the “Studies and Models for the Popularization of Science at National Travel Destinations” and other experimental projects. It has produced suggestions on the creation of public science facilities in China’s scientific academies and botanical gardens and other policy documents, and trained many scientists active in the popularization of science. It has established botanical gardens in Beijing, Wuhan and Kunming, a museum around the prehistoric “Peking Man” site at Zhoukoudian, the White-Flag Dolphin Aquarium in Wuhan, the Academy of Sciences computer network data centre, the Changchun Man-made Satellite Observation Centre and many other sites for public education in the sciences. It has launched such activities as the “Entering the Palace of Science” and “Uphold Science, Root out Superstition and Oppose Evil Cults” campaigns, and organized exhibitions and seminars on “Life and Evolution”, “The Universe, The Earth and Life”, and “The Mysterious World of Molecules”. It has also founded and publishes the *China National Geographic*, *Computer Enthusiast*, *Newton’s World of Science* and other periodicals, and publishes more than 4,000 popular science books and audio-visual products. At the same time, it encourages and organizes scientists to take part in a variety of popular-science activities, for example, the “Hundred Academicians” series of science lectures held in 10 cities between 1996 and 1998, and the publication of the Academician Science book series, of which 50 titles have appeared. It uses the summer and winter school vacations, as well as holidays, to organize science and technology camps for the young, and also offers exhibitions, seminars, competitions and visits to scientific facilities.

278. By tying popular scientific education to vocational training, the building of corporate cultures and mass technological innovation campaigns, raising scientific and technical standards among workers, boosts the capacity for technological innovation in enterprises. Supporting all types of popular science within society and using scientific information campaigns directed at the general population build favourable corporate images and increase people’s identification with high-technology products.

279. In 1988, the China Science and National Rejuvenation Fund was founded (now renamed the China Science and Technology Development Fund) and 64 special funds, among them the Gao Shiqi Popular Science Fund, the Mao Yisheng Science and Technology Development Fund, the Sun Yueqi Science and Technology Education Fund and the 21st Century China Youth Science Education Fund were set up. Together, these provided 3.555 million yuan in sponsorship for 12 science-popularization projects in 2000 - 7 per cent of the special funding for that year. The development of funds for the popularization of science in China reveals certain new trends. One is that national investment in big science and technology funds is increasing the number of popular science projects. Another is that regional governments are vigorously promoting the development of science-popularization funds. A third is that all branches of society and domestic and foreign enterprises are actively investing in such funds. Meanwhile, UNICEF support for popular science education campaigns in 150 poor counties in China means that these campaigns are able to reach and benefit a million young rural residents every year.

280. China's legislative organs have enacted specific laws to promote the wider application of the fruits of scientific and technological advances. These include the Agricultural Technology Promotion Act and the Scientific and Technological Advances Conversion Act. The Government grants material rewards to individuals who have made a significant contribution to a scientific or technological development or its conversion for wider application. Such onward conversions of technology are also encouraged through preferential taxation policies, such as the business tax exemption offered to scientific research bodies and institutes of higher education on any income earned through technology conversion. There is also a temporary tax exemption in place on income earned by research bodies and higher institutes through such services as technology transfers, technical training, technological consulting, technology subcontracting and similar services that these organs provide to industry.

281. Research institutions and schools of higher education and their staff can independently find high-technology enterprises or convert technology for existing enterprises. Research institutions which practise competitive recruitment must allow staff who do leave to reapply for their original positions within a stipulated period of time (usually two years), on the same salary and terms as their colleagues who had not left. The salary, medical and accident insurance and other benefits payable to technology staff while working in concurrent posts or leaving the institution are in principle the responsibility of the employing enterprise.

282. Experts in science and technology are encouraged to found high-technology enterprises. Provided that they voluntarily and on their own initiative set up the enterprises, raise the necessary capital, operate the business as they see fit, are personally responsible for profits and losses, show proper restraint and achieve personal development, they are allowed to show what they are worth. State-sector and collective high-technology enterprises are permitted to draw on their own core assets; when such enterprises are corporatized, the core staff are allowed to be founding members of the companies that result. This guarantees that the personal worth of such technology specialists can be maximized. Regional governments, in conjunction with the relevant institutions, are required to support high-technology business-development service centres (known as "high-tech enterprise incubators") in helping research institutions, schools of higher education and their personnel to found technology-conversion enterprises by providing the necessary sites, facilities and services.

283. The Government uses competitive mechanisms to choose the best candidates to support, then provides investment, credit, capital subsidies and venture capital to support conversion projects. On certain conditions, and in accordance with the State regulations, local areas can set up technology-conversion funds or venture funds. Commercial banks are expected to offer loans to technology-conversion enterprises that meet the requisite credit conditions.

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HONG KONG SPECIAL ADMINISTRATIVE REGION\*

## *Science and technology*

### *Policy on promotion of science and technology*

771. Developments have moved on somewhat from the position explained in paragraph 606 of the initial report. The Government continues to promote the development of innovation and technology through the provision of appropriate infrastructure, human resources, funding support, and other programmes. Now, however, our infrastructural support includes the Hong Kong Science and Technology Parks Corporation,<sup>65</sup> the Hong Kong Applied Science and Technology Research Institute<sup>66</sup> and the Hong Kong Productivity Council.<sup>67</sup> Funding support continues to be provided through the Applied Research Fund.<sup>68</sup> But the other main source of funding is now the Innovation and Technology Fund,<sup>69</sup> which was launched in November 1999.

### *Role of the Research Grants Council*

772. The Council provides grants for research projects on a competitive basis. Between 1991-1992 and 2001-2002, the funds available to the Council for this purpose have increased from HK\$ 100 million to HK\$ 511 million. The grants are allocated to research projects divided broadly into four major disciplines: Engineering; Biology and Medicine; Physical Science; and Humanities, Social Science and Business Studies.

### *Prevention of the use of scientific/technological developments for purposes contrary to the enjoyment of human rights*

773. The position is as explained in paragraph 610 of the initial report.

### *Protection of intellectual property rights*

774. The position remains as explained in paragraphs 613 to 616 of the initial report.

### *Country parks and conservation areas*

775. The position is essentially as explained in paragraph 619 of the initial report. But an additional area has since been designated as a marine park. Now, about 47,600 hectares – or about 43 per cent of Hong Kong's total land area - are protected by statute.

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## MACAO SPECIAL ADMINISTRATIVE REGION

### **D. Right to benefit from scientific progress**

1193. The right to pursue scientific and technological research is enshrined in article 37 of the Basic Law. The Legal Framework on Science and Technology Policy, Law 9/2000 of 17 July, reaffirms this right in its article 2.

1194. Furthermore, article 124 of the Basic Law entitles the Region to formulate, on its own, policies on science and technology as well as to protect by law achievements in scientific and technological research, patents, discoveries and inventions.

1195. The MSAR Government determines the scientific and technological standards and specifications applicable in the Region. Its policy has been targeted, in particular, at increasing and developing scientific and technological knowledge and local resources, raising productivity and competitiveness, promoting social and economic development, information technology, familiarization with computer networks, data protection, environmental protection, and scientific and technological research (article 3 of Law 9/2000).

1196. Such objectives have been accomplished by adopting several measures, such as granting special incentives to establish institutions dedicated to scientific and technological research and development, provision of qualified personnel, supporting specialized training within private entities, the teaching of science and technology within school curricula, as well as the creation of the Scientific and Technological Development Fund (Law 9/2000).

1197. The MSAR Government has been encouraging the development of high technology and high value-added business by identifying priority areas, facilitating technology transfer and development, providing specialized human resources and funding programmes.

1198. In March 2000, a new university, the Macao University of Science and Technology, was created. This private institution is specially engaged in training local human resources, scientific and technological development and research (Executive Order 20/2000 of 27 March).

1199. Under Administrative Regulation 16/2001 of 27 August, the Science and Technology Council was set up in 2001, with the purpose of advising the MSAR Government on drafting and implementing policies that would foster the scientific and technological modernization and development of the Region.

1200. The Macao Productivity and Technology Transfer Centre supports companies to use an efficient approach, new concepts and standards of modern technology and information society as well as resources, in order to enhance the added value of its products and services, resulting in stronger productivity and competitive capacity.

1201. Science and education technology are covered in the area of sciences within the basic school curricula.

1202. EYAD is entrusted with promoting science and technological progress in schools, encouraging students and teachers to participate in extra-curricular activities, such as the “IT Week” and the annual technology fair.

1203. Moreover, starting from 2001, the MSAR Government allocated special funds in the amount of MOP 26,723,192 to schools to enhance teaching and learning in information and communication technology.

1204. EYAD also promotes scientific, literary and artistic activities, as well as the protection of intellectual property rights, by organizing youth activities such as “Youth Civic Education Competition” and participation in national and international scientific exchange programmes and contacts.

1205. EYAD has taken several measures to promote the diffusion of information on scientific progress following the MSAR government policy of actively assisting young persons in broadening their knowledge and increasing common scientific knowledge, namely by sponsoring youth associations to install computers. Through this action, EYAD guarantees to young persons access to computers and Internet connections at the Information Technology Centres.

1206. Furthermore, the Fourth National Computing and Network Physics Teaching Conference was held in Macao from 6 to 11 November 2002, in addition to workshops and exhibitions, such as “Multiple Dimensions of the Internet Workshop Series”.

1207. Briefly, at higher education level, the University of Macao offers one course on science and technology while the Macao University of Science and Technology offers a course on information technology and a course on Chinese medicine. Both provide postgraduate studies. The Macao Polytechnic Institute has, inter alia, a School of Health Sciences. There is also the Kiang Wu Nursing College.

1208. Research papers and publications are also important components in the promotion and dissemination of scientific and technological knowledge. Several governmental bodies and private institutions in the Region promote scientific and technological investigation.

1209. For example, in the academic year 2001/02 the University of Macao sponsored, a total of 74 research projects, which resulted in the publication of 60 papers in international journals and 140 presentations at international conferences. In the first half of 2002 it sponsored 32 projects and 39 participations in international conferences. The University also holds projects in cooperation with the University of Washington and with European and mainland institutions, having completed four “Eureka” projects.