



Science, Technology and Education News from China

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Please note that the previous newsletters can be downloaded from the website of the Embassy of Switzerland in China: www.eda.admin.ch/beijing¹. To subscribe/unsubscribe or send us your comments, please send an email with the corresponding subject to shu.zhou@eda.admin.ch.

Introduction

A close look at the education in Western China shows that the region is under-funded but has great potential to develop. Chinese Academy of Sciences University is to recruit from around the world for talents. Science and technology is benefiting our lives as shown in the latest Beijing International High-tech Expo.

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Policies

The Development of Education in Western China

The Chinese government defines Western China as the following: it includes six provinces, i.e. Gansu, Guizhou, Qinghai, Shaanxi, Sichuan, and Yunnan; one municipality, i.e. Chongqing; and three autonomous regions, i.e. Ningxia, Tibet, and Xinjiang. In the context of this report, another two provinces are included. They are Inner Mongolia and Guangxi. The territory of the western region is vast, its population sparse, and its economy undeveloped. Of the poor population who lack adequate food and clothing, the majority live in this region. It is also the region in which most of China's minority nationalities live.

Although state investment in education for Western China has been increasing year on year, the speed of increases has been at a slower pace than that of Eastern China, which resulted in the general lack of funding for basic education² in the region. It is the same story in higher education, with only seven universities³ in the whole region being funded by the “985 project” (39 in total), and another 17 universities in the region are funded by the “211 project” (139 in total) of the Ministry of Education.

By Year 2000, China has almost achieved its objectives in providing basic education to the whole population and eliminating illiteracy among young people, less 410 counties in the Western region. Following intensive research, the government implemented “The 2004 to 2007 Plan to Strengthen Capacity in Education in the Western Region for the Popularization of Basic Education and the Elimination of Illiteracy”, that covered the construction of primary and secondary schools with boarding facilities in rural areas, waiving tuition fees, providing free books and subsistence to students from poor families, developing long-distance learning facilities, and supplying graduate-level school teachers according to the “Ad Status School Teacher for Rural Education” strategy.

In 2001, the Ministry of Education announced “The Notification on the Implementation of One-on-one Support of Western Universities”, for example, Peking University is to help Shihezi University in Xinjiang to develop its capacity and to improve its quality of education. By September 2008, 25 of the “985 project”-universities as well as 11 “211 project”-universities have established support programmes with their designated universities in Western China. According to the Ministry of Education, substantial achievements have been accomplished as indicated in the following aspects.

- The quality of the teaching faculty has improved as shown by the marked increase in second degree owners and a continuing decrease in staff turnover.
- The quality of students has improved as more and more students from prosperous regions come to universities in the western region.
- The quality of management has improved generally among the aided universities.
- A benign mechanism has been developed to attract well-educated workers to the western region.
- The support from top Chinese universities not only exerted to their designated one-on-one universities, but also to the local communities, contributing to the development of local economies.
- The quality of education has improved as more and more post master courses are set up, so as research projects, and international cooperation.

However, apart from the universities in the “985” and “211” projects that have established long-term relationships with international educational institutions, Chinese universities have started to become more involved in international cooperation only recently. Some of them seem to have a regional approach to international cooperation (i.e. universities in Yunnan cooperating in the Greater Mekong Delta). Others focus on individual schools (i.e. in languages, culture, etc.). Given the fast changes in the region, it is worth following these developments in the future.

² Basic education here refers to China's nine-year compulsory public education including primary school, junior middle school, senior middle school, special secondary school and vocational secondary school education.

³ Chongqing University, Sichuan University, University of Electronic Science and Technology of China, and Lanzhou University.



News

1. NSFC and CAS Join Hands in Strategic Research of Disciplinary Development

(NSFC, 21-05-2009)

[...] The joint strategic research between NSFC and CAS aims to give full play to the key role of CAS academicians as the highest academic consultative body, to make comprehensive plan for the future and to promote the coordinated and sustainable development of scientific disciplines in China. Both organizations set up joint leading groups and working groups to strengthen top-level design, assign strategic research tasks according to scientific disciplines and organize teams with strategic scientists as the core to carry out research. It is the major task of this research to analyze the laws of disciplinary development, basic research and talent training, as well as the demands of research environment build-up. The research is expected to bring forward disciplinary development plans and priority areas for the period from 2011 to 2020, so as to provide the basis for policy making in basic research related strategic planning and policy advices for basic research in China. [...]

2. CAS Graduate University to Recruit 6,500 Students for Master Degree in 2010

(CAS, 25-05-2009)

The Graduate University of Chinese Academy of Sciences (GUCAS) will recruit 6,200 students for master degree studies in 2010, with four disciplines open for application for the first time. The new disciplines include Biopsychology, Bioinformatics, Scientific and Technological Archaeology, and Energy and Electro-technology. Besides, the university will recruit more than 300 postgraduate of practical type next year, majoring on six disciplines such as material engineering, electric and communication engineering. [...] The university offers programs for international students and provides them financial aid with "GUCAS International Students Scholarship".

3. Let Technologies Benefit Your Life

(CRI, 22-05-2009)



A staff member tests the robots which can take dishes at the 12th China Beijing International High-tech Expo in China International Exhibition Centre in Beijing on Wednesday, May 20, 2009. [Photo: CRIENGLISH.com]

From early computers to 3G mobile phones, developing technologies have altered our lives in various areas. The ongoing 12th China Beijing International High-tech Expo gives us a glance of the changes. [...]

4. China's Robot Helicopter Ready for Market

(Xinhua, 22-05-2009)

China's independently developed robot helicopters that can fly automatically without remote controls are ready for production. The Shenyang Automation Institute under the Chinese Academy of Sciences has taken four years to develop two types of robots. One weighs 120 kg with a payload of up to 40 kg and can fly for 4 hours at a maximum cruising speed of 100 km per hour. The other one weighs 40 kg and has a payload of 15 kg and a maximum cruising speed of 70 km per hour. They are priced at RMB700,000 to RMB2million and can be ordered at 20 to 30 units each time. [...] The robot project was funded by the central government and was listed as a national key research project in 2006 because that it could be used for collecting information or carrying cargoes in harsh conditions such as earthquakes or lethal gas leaks. It can also be used for spraying pesticides.

5. Scientists Develop Dental Filling Using Bile Acids

(Reuters, 21-05-2009)

Scientists in Canada and China have developed a hardy material using human bile acids, which they hope can be used to fill dental cavities. [...] "The new material appears stronger and longer lasting as well,



with the potential for reducing painful filling cracks and emergency visits to the dentist," wrote the scientists, led by Julian Zhu at China's Shanxi University's department of chemistry.

6. **Long-sought Way to Make 'Nano-raspberries' May Fight Foggy Windows and Eyeglasses**

(Science Daily, 26-05-2009)

In an advance toward preventing car windshields and eyeglasses from fogging up, researchers in China are reporting development of a new way to make raspberry-shaped nano-particles that can give glass a permanent antifogging coating. [...] The scientists describe an efficient one-step method for making nano-raspberries. In laboratory studies, the researchers coated glass slides with the particles, cooled the slide, and then exposed it to steam. Unlike ordinary glass, it remained crystal clear, opening the door to possible commercial applications, the researchers say.

7. **Pigs Offer New Stem Cell Source**

(BBC, 2 June 2009)

Chinese scientists have given cells from adult pigs the ability to turn into any tissue in the body, just like embryonic stem cells. They hope the breakthrough could aid research into human disease, and the breeding of animals for organ transplants for humans. It may also enable the development of pigs that are resistant to diseases such as swine flu. The study appears online in the Journal of Molecular Cell Biology. [...]

8. **China to Launch First Mars Probe in Second Half Of 2009**

(People's Daily, 29-05-2009)

China's first Mars probe, Yinghuo-1, is expected to be launched in the second half of this year, an official of the Shanghai Academy of Space flight Technology (SAST) said, [...] Yinghuo-1 is expected to discover why water disappeared from Mars and explain other environmental changes of the planet. [...] The project is China's third major space exploration plan after the manned space project and the moon exploration program. It was also the first time that China would explore another planet.

Events (June – December 2009)

June 2009

The 11th China Int'l Environmental Protection Exhibition and Conference- CIEPEC 2009

Date: 1 June 2009

Place: Beijing

- Environmental Protection

Tenth Int'l Conference on the Science and Application of Nanotubes

Date: June 2009

Place: Beijing

- Academic Exchange

July 2009

1st Dalian International Education and Cultural Innovation Industry Fair

Date: 17- 20 July 2009

Place: Dalian World Expo Centre

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Int'l Congress of Biochemistry and Molecular Biology

Date: 20 July 2009

Place: Shanghai

- Academic Exchange



23th Int'l Congress on Conservation Biology

Date: July 2009

Place: Beijing

- Academic Exchange

Young Scientists Program 2009

Date: July 2009

Place: Shanghai

- Academic Exchange

Int'l Symposium on the Family Zingiberaceae

Date: July 2009

Place: Yunnan

- Academic Exchange

2009 Symposium on Computational Chemistry and HPC Applications

Date: July 2009

Place: Haerbin

- Academic Exchange

August 2009

The 5th China Reproductive Health New Technologies & Products Expo

Date: 5 August 2009

Place: Beijing

- Reproductive Health

World Soybean Research Conference VIII

Date: 10 – 15 August 2009

Place: Beijing

- “Developing a Global Soy Blueprint for a Safe, Secure, and Sustainable Supply”

The 17th Int'l Congress of the IFAA

Date: August 2009

Place: Beijing

- Academic Exchange

September 2009

Int'l Conference on Nanoscience and Technology, China 2009

Date: September 2009

Place: Beijing

- Academic Exchange

Architecture Exhibition “ArchScapes”

Date: 26 September – 20 October 2009

Place: Today Art Museum, Beijing

- Academic Exchange

October 2009

13th Int'l Fire Protection Equipment, Technology Conference & Exhibition China

Date: 13 October 2009

Place: Beijing

- Fire equipment, Rescue Equi., Fire Pumps, Fire Resistant Building Materials, Design for Five Protection Engineering



The 7th China Int'l Exhibition for Roofing & Waterproofing Tech.

Date: 14 October 2009

Place: Beijing

- Roofing & Waterproofing Tech

The First Int'l Conference & Exhibition on Reagents and Their Application

Date: 14 October 2009

Place: Beijing

- Reagents and Their Application

China Education Expo 2009

Date: 15-18 October 2009 Place: Beijing	Date: 28 October 2009 Place: Chengdu
Date: 21 October 2009 Place: Wuhan	Date: 31 October – 1 November 2009 Place: Guangzhou
Date: 22-25 October 2009 Place: Shanghai	

- One of the largest international education expo in China

The 11th Multinational Urban Traffic Conference and Exhibition

Date: 18 October 2009

Place: Beijing

- Traffic planning and urban development, ITS

The 1st China (Beijing) Int'l Cleaning Energy Technology & Equipment Exhibition and Summit of Conserving Energy & Reducing Emissions

Date: October 2009

Place: Beijing

- Solar power technology

November 2009

China Fashion Week 2009

Date: November 2009

Place: Beijing

- Fashion Design

Int'l Symposium on Carbon Cycling in Tropical Ecosystems

Date: November 2009

Place: Guangzhou

- Academic Exchange

December 2009

PHD Workshop

Date: 11 – 13 December 2009

Place: Swissôtel, Beijing

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Marintec China 2009

Date: December 2009

Place: Shanghai

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