Science, Technology and Education News from China

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Introduction

This month sees the release of the finalized *Outline of China's National Plan for Education Reform and Development (2010-2020)*. Also in this month, Minister WAN Gang outlined priority development areas for health technology. Accompanying the new education development plan comes new statistics on the achievement of Chinese education. China also launched "Research on Global Change", a new national key science and technology project to address global changes caused by climate change. The Ministry of Industry and Information Technology identifies High Technology-related Service Industry as a new priority development area.

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Contact

Markus Reubi
Science & Technology Counsellor
Embassy of Switzerland in the People's Republic of China
Tel: +86 10 8532 8849
Email: Markus.Reubi@eda.admin.ch
www.eda.admin.ch/beijing

[1] Please click on the blue texts to activate the hyperlinks to either email addresses or related websites.

Policy

Outline of China's National Plan for Medium and Long-Term Education Reform and Development (2010-2020)

On July 30, the ***Outline of China's National Plan for Medium and Long-Term Education Reform and Development (2010-2020)*** was officially released by the State Council of P.R.C., after 2 rounds of public suggestion solicitation and 3 months of evaluation by the central government. On the basis of 27,855 pieces of suggestions gathered during the second round of suggestion solicitation and 5 panel discussions hosted by Premier WEN Jiabao and involving participants from all education levels as well as the general public[2], the final version of the ***Outline*** seems now even more ambitious on educational development.

Certain issues of common concern, which were previously left out in the draft, are now officially enlisted. Among them the decision to open more **state-funded kindergartens**, to further **relief the burden of students**, and to further **promote equal access to education**.

Lack of mentioning **pre-school education** was the most-challenged issue during suggestion solicitation. The rising tuition fee of private kindergarten and highly limited access to state-funded kindergartens have now made pre-school education the most expensive education phase in China. In response to the public questioning, the *Outline* clarified the leading role of government in “forcefully developing” state-funded kindergartens and “regulating” kindergarten tuition fee.

Attention was also paid to **migrant workers' children**, as it was mentioned that local governments should work with local schools to make sure this group of students also have equal access to education. They should also be able to take examinations in the host city. Until now, these students have extreme difficulties getting access to schools in their host city as the slots were more saved for local kids. Even if they luckily did, eventually they had to go back to their hometowns for important examinations.

To relief the students from competing to get into better middle schools, it was again stressed in the Outline that admission during compulsive education period should stick to geographic basis. Addressing current trends where students are overburdened with certificate-oriented training programs, the Outline specified that during compulsory education period, "no certification and competition results can be used as critera for admission." Meanwhile, an additional measure to promote equal access to education resources is a **Nation-wide Teacher Training Program**, which was officially unveiled a few days ago. The goal was to ensure that all teachers (in primary and secondary education) in China, especially teachers in rural areas, should receive at least one training session every five years. The budget for this program in 2010 is USD 81.2 million[3].

No major change is made in terms of **international cooperation**. The priorities are still on promoting Confucious institutions, increasing the number of international students coming to China and the number of degree programs taught in English in China, and encourageing Chinese universities to collabrate with foreign universities and to establish branches abroad.

After several decades of prioritized educational development in selected areas, the *Outline 2010-2020* puts an emphasis on “**education for all**.” Though the Outline itself sounds quite promising, specific and concrete implementation plans now need to follow. Certain issues of great controversy, such as the reform on university administration pattern, were still only touched upon with ambiguity. According to press release published by the Ministry of Education, the satisfaction rate of the Outline among the general public is 73%. In China, where education is being viewed as the most important thing by almost every family, the public always has high expectations from the government. Such public interest will continue to stimulate the debate on the reform of education in China.

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[2] Xinhua News, http://www.moe.edu.cn/edoas/website18/00/info1280518259668900.htm
[3] Nation-wide Teacher Training Program Launched, Ministry of Education, http://www.moe.edu.cn/edoas/website18/40/info1280134469842740.htm

News

1. Facts and Figures: China's Educational Development

(Xinhua News,10-07-2010)

A national conference on education was convened in Beijing on July 8 to discuss China's educational development in the next decade. Following are some facts and figures that demonstrate the country's major achievements in education.

-- When the People's Republic of China (PRC) was founded, the enrollment rate of school-aged children was 20 percent, while the illiteracy rate was over 80 percent. Now, China has the world's largest educational system. In 2009, China had a student population of 260 million, who were taught by 14 million teachers. Illiteracy among young people and people of working age dwindled to below 3.58 percent.

-- Now the nine-year free compulsory education has been popularized. The enrollment rates in elementary schools and junior high schools have reached 99 percent. The average year span of education among people above 15 have reached 9.5 years.

-- In 2009, China's higher learning institutions had 29.79 million students, with a gross enrolment rate of 24.2 percent, equaling the world average level. Besides, 82 million people now have higher education degrees.

-- China has put into place a free compulsory education system across urban and rural areas. From 2006 to 2010, the central government has allocated additional funding worth 218 billion yuan (32 billion U.S. dollars) to shore up compulsory education in rural areas.

-- The monopoly of public schools has been ended. Now China has over 100,000 private schools.

-- Government spending in education has increased year on year. In 2009, the funding allocated to the education sector by the central government reached 198 billion yuan (29 billion U.S. dollars), up by 23.6 percent year on year.

http://news.xinhuanet.com/english2010/china/2010-07/13/c_13397209.htm

2. China Makes Further Push for Equal Access to Education

(Xinhua Net, 15-07-2010)

Chinese local governments have revealed plans to extend educational opportunities after the central authority reasserted its determination to improve the country's educational system with a focus on promoting equal access to education.

At the national work meeting on education, President Hu Jintao emphasized education as a top national priority, while Premier Wen Jiabao outlined five objectives of developing education, the first of which is to promote equality in education.

Wen identified the tasks in promoting education equality as channeling more education resources to underdeveloped areas, extending government grants to more students from low-income families, and building more special education schools, among others. Responding to the central government, local governments have already initiated projects or are considering plans to promote equal access to education. The municipal government of Beijing, for instance, has announced it will build 118 public kindergartens in the next three years to meet the public demand for daycare for pre-school age children,

as well as to educate these children, said mayor Guo Jinlong. Rocketing kindergarten fees and difficult admission policies to kindergartens have become a top concern for parents with pre-school children in Beijing, as the city population growth has outpaced the development of kindergartens. This year, the city government has already invested 30 million yuan (about 4.41 million U.S. dollars) to expand building spaces hosting kindergartens and will continue to do so with another investment of 60 million yuan. Additionally, the city will begin building 30 new kindergartens with nearly 20,000 beds.

Also, Beijing municipal government plans to build more schools or expand the responsibilities of current schools to enroll the children of migrant workers, according to Guo.

3. Development of Health Technology: 10 Priority Areas

(People's Daily, 09-07-2010)

On the occasion of the opening of 2nd Health-Tech 2010 on July 9, Mr.WAN Gang, Minister of Science and Technology outlined 10 priority areas for China in the development of health technology in the future.

The marked priority areas include: 1) strengthen the R&D of diseases prevention and control technologies and associated diffusion, substantively raising China's capability of preventing, diagnosing, and treating major diseases, major infectious diseases, and common diseases; 2) strengthen new drug innovations and technological upgrade of major drugs, making major drugs more effective, and building up large pharmaceuticals with international competitiveness; 3) strengthen drug safety, establishing a technical system to monitor the entire process of drug safety from lab to patients; 4) strengthen food safety, establishing a technical system to monitor food; 5) accelerate the localization of medical instruments, facilitating proprietary innovative products into domestic and international markets, nurturing high tech businesses enjoying the sustainable proprietary R&D capability; 6) strengthen the R&D of population safety technologies and associated diffusion, providing technical support to population control, reducing birth defects, further cutting down the mortality of pregnancy and infants, and enhancing people's reproduction health; 7) stage integrated demonstrations of grassroots medical care services, substantively raising the S&T level of grassroots medical care services. 8) accelerate the modernization and internationalization processes of traditional Chinese medicine, maintaining and strengthening China's position as a world leader in the area of traditional Chinese medicine; 9) develop and diffuse the technologies desirable for keeping fit; 10) initiate a 'public health awareness action', screening out and diffusing a range of advanced and proven technologies to improve people's health, diffusing health knowledge and practice through TV, radio, newspapers, and forums, and raising people's diseases prevention capability.

WAN said, of the 17 major S&T projects initiated during the 11th Five-year plan period (2006-2010), 2 were established to work on major new drug innovations and major infectious diseases prevention and control. MOST has made an investment worth USD 440 million in the health component under National 863 Program. In the National 973 Program, the expenditures consumed by the life science projects hit 30% as a proportion of the total expenditures consumed by the program.

4. National Key Science and Technology Project "Research on Global Change" Launched

(MoST, 12-07-2010)

On top of the existing National Key Science and Technology projects, the Ministry of Science and Technology and the Ministry of Finance announced the debut of an additional national key project "Research on Global Change" on July 12, 2010.

The project will be led by XU Guanhua, former minister of science and technology, academician of Chinese Academy of Sciences. Appropriation of this project is set aside independent from the current budget for national key science and technology project.

During the first phase of project implementation, 19 research projects were established under this umbrella. The researchers will not limit their perspectives in China. Quite on the contrary, 12 out of the total 19 the projects take a global vision in their studies.

According to DING Zhongli, Vice President of Chinese Academy of Sciences, the project was named "Research on Global Change" instead of "Research on Global Climate Change" as the purpose of the Program is to address problems faced by the entire world resulted from changes.

The budget for the 19 projects have been published by the Ministry of Science and Technology for public comment. Each project received approximately USD 2 million for the first 2 years of research. The projects were assigned to different Chinese universities and research institutes. 10 out of the 19 projects are headed by Chinese Academy of Sciences.

5. High Technology-related Service Industry a Priority Development Area

(NDRC, 22-07-2010)

China National Development and Reform Commission (NDCR) released an announcement in June to promote High Technology-related Service Industry.

NDRC defines High Technology-related service industry as industries supporting the development of high technology, such as information technology services, bio-technology service, digital content service, R&D and design service, intellectual property service and knowledge transfer services. The above-mentioned industries feature talent-intensive and high added-value, and are therefore marked as priority development areas by NDRC.

In the next step, NDRC will work with local governments to identify a few cities as "national high-technology-related service industry base." Specific policies supporting the development of such industry base will soon follow. The selection of cities will be based on its regional economic development pattern as well as its high technology developmeng pattern.

6. National Energy Awards Conffered

(MoST Newsletter, 30-07-2010)

Chinese National Energy Administration conferred National Energy Awards to 22 winners on July 23 at the Great Hall of the People in Beijing, the first instance in the area of energy. On the same day, the Administration issued the names of new national energy R&D centers, and established a technology innovation alliance for ultra-supercritical pressure coal-fired power generation technology at 700℃.

According to a briefing, 22 energy projects have been granted with national energy awards in 2009. 4 projects won first-place award, 8 projects second-place award, and 10 projects third -place award, for a range of accomplishments, including the localization of large liquefied natural gas (LNG) boat, parallel technology and associated scale application, the localization of pump valve for the nuclear power station at a mega kilowatt level, and plasma fuel free ignition and stabilized burning. The new national energy R&D centers are named after the first 16 same caliber R&D centers were named on January 6, 2010 for nuclear power generation, wind power generation, clean coal transfer and utilization, energy prospecting and development, and associated equipment/facilities. The technology innovation alliance for ultra-supercritical pressure coal-fired power generation technology at 700℃ is an effort to join the strength of energy and material sectors and relevant research institutes. So far the alliance has completed technical line and top level designs.

Events (August-September 2010)

August 2010

The Second International Conference on Service Science and Innovation
Date: August 8th – 10th
Place: Beijing
Contact: http://www.icssi.org

Qingdao Industrial Equipment Fair
Date: August 11th-13rd
Place/Contact: Qingdao International Convention & Exhibition Center

China Power Transmission and Control Technology Exhibition
Date: August 11st-13rd
Place/Contact: Qingdao International Convention & Exhibition Center

Swiss National Day / Visit President of Switzerland, Doris Leuthard
Date: 12th August
Place: Shanghai
Contact: Presence Switzerland

2010 Shanghai International Architecture Forum
Date: August 14th
Place: Shanghai
Contact: Tongji University

2010 TWAS Workshop on Safe Water Quality in Developing Countries
Date: August 17th
Place: Beijing
Contact: Research Center for Eco-Enviornmental Sciences, CAS

Einstein Series: Talk by Nobel Lectures Rolf Zinkernagel
Date: August 18th
Place: China Science and Technology Museum, Beijing
Contact: Swissnex China

World Cancer Congress
Date: August 18th-25th
Place: Shenzhen
Contact: Chinese Medical Association

The International Congress on Internet Technology and Applications
Date: August 20th-22nd
Place: Wuhan
Contact: http://www.itapconf.org/2010/

14th International Conferences on Surface Sciences
Date: August 23th-27th
Place: Beijing
Contact: Chinese Vacuum Society

Design Preis Schweiz & Red Container
Date: 23rd August – 5th September
Place: Shanghai
Contact:Swissnex China

5th Internatioanl ICST Conference on Communications and Networking in China
Date: August 25th-27th
Place: Beijing
Contact:
http://www.chinacom.org/2010/index.html

BQQ Lecture / Art and Museum
Date: 26th August
Place: Shanghai
Contact: Swissnex China

Einstein Series: Talk by FANG Zaiqing, Expert on Eistein
Date: August 28th
Place: China Science and Technology Museum, Beijing
Contact: Swissnex China

September 2010

Exhibition "Climate Trail" and "Affected: The Human Faces of Climate Change"
Date: September 1st-14th
Place: Qingdao Olympic Sailing Museum
Contact: Embassy of Switzerland in China

The 1st Laser Interaction with Matter Int's Conference, LINIC
Date: September 10th
Place: Changchun
Contact: Changchun Institute of Optics, Fine Mechanics Physics, CAS

SSSTC Workshop on Renewable Energies and Material Sciences
Date: September 11th to 12th
Place: Beijing
Contact: CAS/ETHZ

International Conference on Enviornmental Catalysis
Date: September 12th
Place: Beijing
Contact: Research Center for Eco-Enviornmental Sciences, CAS

18th International Conference on Enviornmental Indicators
Date: September 13th
Place: Hefei
Contact: University of Science and Technology of China, CAS

Future Cities Conference, Shanghai World Expo
Date: September 13th
Place: Swiss Pavilion, Shanghai EXPO
Contact: Swissnex China

E+ Series: Nobel Lectures with Kurt Wüthrich, Nobel Price in Chemistry, 2001
Date: September 14th
Place: China Science and Technology Museum
Contact: Swissnex China

The 15th International Exhibition on Quality Control and Testing Equipment
Date: September 15th
Place: Shanghai
Contact: Shanghai Research Institute of Materials

International Conference on Sustainable Development of Subtropical Agriculture
Date: September 15th
Place: Changsha
Contact: Institute of Subtropical Agriculture, CAS

Shanghai Design Biennial
Date: September 16th
Place: Shanghai
Contact: Shanghai Foreign S&T Exchange Center

SMARTricity Asia Congress 2010
Date: September 15th to 17th
Place: Shanghai
Contact: Opplandcorp

Pharma Focus Congress
Date: September 16th to 17th
Place: Shanghai
Contact: China Decision Makers Consultany

E+Series: Meet the Astronauts, Claude Nicollier
Date: September 19th
Place: China Science and Technology Museum
Contact: Swissnex China

2010 International Conference on Education and Information Technology
Date: September 17th to 19th
Place: Chongqing
Contact: Chongqing University

MICCAI 2010, the 13th International Conference on Medical Image Computing and Computer Assisted Intervention
Date: September 20th to 24th
Place: Beijing
Contact: Institute of Automation, CAS