making a small group of them world class in the coming decade, and making a larger number internationally competitive research universities. Other Asian countries are also upgrading higher education with the aim of building world-class universities. Taiwan, which is a major designer and producer of IT hardware, is considering merging several of its top technological universities to create an "Asian MIT."

To compete successfully in the knowledge-based economy of the 21st century, India needs enough universities that not only produce bright graduates for export but can also support sophisticated research in a number of scientific and scholarly fields and produce at least some of the knowledge and technology needed for an expanding economy. India's recent decision to stop producing generic pharmaceuticals to conform with WTO rules underscores the need for the country to have an independent research capacity to develop, manufacture, and market scientific products, including medicines.

Several of the well-endowed and effectively managed private institutions maintain reasonably high standards, although it is not clear that these institutions will be able to sustain themselves in the long run.

PATHS TO SUCCESS

How can India build a higher education system that will permit it to join developed economies? The newly emerging private sector in higher education cannot spearhead academic growth. Several of the well-endowed and effectively managed private institutions maintain reasonably high standards, although it is not clear that these institutions will be able to sustain themselves in the long run. They can help produce well-qualified graduates in such fields as management, but they cannot form the basis for comprehensive research universities. This sector lacks the resources to build the facilities required for quality instruction and research in the sciences, nor can enough money be earned by providing instruction in the mainstream arts and sciences disciplines. Most of the private institutions do not focus on advanced training in the sciences

Only public universities have the potential to be truly worldclass institutions. Institutions and programs of national

prominence have already been identified by the government. But these institutions have not been adequately or consistently supported. The top institutions require sustained funding from public sources. Academic salaries must be high enough to attract excellent scientists and scholars. Fellowships and other grants should be available for bright students. An academic culture that is based on meritocratic norms and competition for advancement and research funds is a necessary component, as is a judicious mix of autonomy to do creative research and accountability to ensure productivity. World-class

universities require world-class professors and students—and a culture to sustain and stimulate them.

A clearly differentiated academic system has not been created in India—a system where there are some clearly identified elite institutions that receive significantly greater resources than other universities. One of the main reasons that the University of California at Berkeley is so good is that other California universities receive much less support. India's elite universities require sustained state support—they require the recognition that they are indeed top institutions and deserve commensurate resources. But they also require effective management and an ethos of an academic meritocracy. Funding institutions that are incapable of managing resources is a wasteful investment. At present, the structures are not in place to permit building and sustaining top-quality programs even if resources are provided.

A combination of specific conditions and resources are needed to create outstanding universities.

- Sustained financial support, with an appropriate mix of accountability and autonomy.
- The development of a clearly differentiated academic system—including private institutions—in which academic institutions have different missions, resources, and purposes.
- Managerial reforms and the introduction of effective administration.
- Truly meritocratic hiring and promotion policies for the academic profession, and similarly rigorous and honest recruitment, selection, and instruction of students.

India cannot build internationally recognized research-oriented universities overnight, but the country has the key elements in place to begin and sustain the process. India will need to create a dozen or more universities that can compete internationally to fully participate in the new world economy. Without these universities, India is destined to remain a scientific backwater.

The Reintroduction of Accreditation in Japan: A Government Initiative

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A ccreditation is a hot topic all over the world, with the development of the international student market stimulating government intervention on accreditation issues. No exception to this intensifying trend, Japan is now taking measures to

strengthen its accreditation system through strong initiatives on the part of the national government to promote quality assurance in higher education. As of 2004, legislation requires all public and private universities, junior colleges, and colleges of technology to be accredited by an evaluation organization authorized by the national government. In the Japanese case, it appears that the main driving forces for developing an accreditation system have always originated outside the universities.

POST-WORLD WAR II: THE INTRODUCTION OF ACCREDITATION

Accreditation in Japanese higher education has a long history as a nongovernment endeavor. Under the U.S. occupation (1945-1950), the Japan University Accreditation Association (JUAA) was established in 1947 to provide nongovernment institutional accreditation. After the recovery of national independence, however, the Ministry of Education established governmental "Standards for University Establishment." As a result, nongovernment accreditation through the JUAA lost substantial influence, having become a "voluntary" process without any sanctions.

In the Japanese case, it appears that the main driving forces for developing an accreditation system have always originated outside the universities.

Until quite recently, neither the government nor higher education institutions made use of the JUAA accreditation system, while a majority of universities supported the JUAA as a symbol of university ownership in quality matters. In the 1990s, debate over university evaluation focused mainly on the assessment of university performance rather than on accreditation or quality assurance. Universities and junior colleges initiated self-evaluation at the strong urging of the ministry. In 2000, the National Institution for Academic Degrees and University Evaluation (NIAD-UE), an organization established by the government, launched a national pilot project concerning higher education evaluation. The project, modeled after British quality assessment in education and research, was not yet an accreditation initiative.

A New Governmental Accreditation Initiative

At the turn of the 21st century, the Japanese government began to focus on the need for a renewed accreditation system. This trend was clearly influenced by discussions at the World Trade Organization and the European accreditation movement concerning education services. The first official argument for promoting quality assurance was presented in a University Council report, "Higher Education in the Global Age." The need for quality assurance and accreditation was discussed in the context of cross-border and professional education, both of which require international recognition of their qualifications. In 2002, the Central Council for Education in the Ministry of

Education issued a report, "Construction of a New Quality Assurance System for Universities." The report referred to trends in European countries regarding accreditation and explained the need for quality assurance in the context of international competition and cross-border provision of education, rather than in terms of domestic requirements for quality improvement.

Japan's School Education Act was amended in 2002, with the new accreditation scheme starting in 2004. Through these developments, the government authorized several accreditation organizations, and all public and private universities, junior colleges, and colleges of technology were required to undergo the accreditation process every seven years.

As pointed out by Rie Mori of NIAD-UE, the critical difference between the American and new Japanese system of accreditation is found in their respective approaches to voluntarism. While government guidelines for authorizing accreditation organizations were based on the American federal government guidelines for scholarship, the Japanese approach differs notably from the U.S. system because it is based on governmental accreditation organizations. As a governmental organization, NIAD-UE was therefore allowed to serve alongside nongovernmental organizations, such as the JUAA. On the other hand, the U.S. Council for Higher Education Accreditation (CHEA) acknowledges that most countries involve national bodies in accreditation; in this sense, Japan followed the prevailing global trend.

The recent reintroduction of accreditation in terms of quality assurance is an integral part of the Ministry of Education's strategy.

ACCREDITATION OR MARKET PRESSURE

The recent reintroduction of accreditation in terms of quality assurance is an integral part of the Ministry of Education's strategy. First, the Japanese government is now urging the international community to establish a list of nationally authorized institutions (or other governmental control mechanisms) to protect quality in the world trade of education services. Second, the Ministry of Education is taking steps to conduct regularly scheduled quality assurance to compensate for the deregulation of government authorization for the establishment of higher education institutions.

The strong insistence by the government on its ownership of accreditation in Japan has contributed to confusion regarding the concept. Currently, the only reliable model of accreditation for Japan is the American, nongovernmental one, while the Japanese approach itself corresponds somewhat to newly developing European (and some other Asian) initiatives. A sense of ownership of the accreditation system is hardly shared by the Japanese universities. The universities, especially private ones, argue that the legal requirement of accreditation as it applies to private higher education institutions is a governmental trial to intervene in the autonomy of private universities.

ties. On the other hand, Japanese higher education institutions have never consolidated to protect their ownership of accreditation after it was introduced by the American forces in the mid-20th century.

The new accreditation system of April 2004 has only just begun being implemented; it will take more than six years until all institutions will be included in the present accreditation process. Nevertheless, this new initiative represents a truly critical change in quality assurance policy in Japanese higher education, as until 2004 Japan lacked any national tool to effectively demonstrate the quality of its higher education.

No accreditation system can be expected to adequately address quality assurance in university education without a strong commitment on the part of institutions based on a sense of ownership. As mentioned earlier, Japanese institutions do not yet perceive ownership of accreditation procedures, resulting in their lingering reluctance to be monitored or evaluated. If existing conditions in Japan continue, growing international and local market pressures are likely to have a far greater influence than the accreditation system itself for assuring and improving the higher education standards.

Will There Be Free Higher Education in Russia?

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The title of this article represents one of the key issues Russians need to resolve now, in the new stage of education reforms. According to the minister of education and science, education is never free; the only question is who will pay? Clearly, the government would prefer not to pay.

In December 2004, the Russian Ministry of Education and Science announced new priorities for educational development in Russia, which have been approved by the government and are expected to be further developed during 2005. These initiatives will involve significant changes at all levels of the existing education system. In higher education, a number of reforms are planned: a two-tier system (bachelor's and master's degrees), a new educational financing model, differentiation of higher education institutions and their legal status, national assessment of educational quality, among other features. These measures are expected to be implemented during the period from 2005 to 2008.

HIGHER EDUCATION FINANCING

While funding schemes are often not cited as the most important element of reform, in fact they do play a central role.

Reformers will link financing with the new two-tier system. Bachelor's and master's degrees were introduced in the 1990s, although only about one-tenth of graduates receive these degrees. The rest of the student population is enrolled in traditional five-year programs that lead to a specialist diploma. At present, bachelor's degree—level education is not perceived as *full* higher education, although the Russian government intends to make this degree the most standard one in the coming age of mass higher education. A pause between bachelor's and master's degrees might be introduced to allow individuals to gain professional experience and refine their educational road maps. Meanwhile, the traditional five-year system will be retained in certain fields.

At the master's degree level, the government will provide funding for training a limited number of students in only a few specialized fields.

The financing reforms will involve a shifting of undergraduate funding to a voucher program based on individual government financial obligations (GIFO). Each financial award corresponds to the scores a high school graduate receives on the unified national examinations (EGE): the higher the scores the higher the financial support and, conversely, the lower the scores, the more a student must pay. After analyzing the results of a GIFO initiative at several institutions, most experts judged the program as a virtual failure, since universities face actual costs per student several times over the funding provided in the highest GIFO categories. In social terms, the link between GIFO and test scores limits the higher education access of many vulnerable socioeconomic groups in society with less opportunity for test preparation. (See another article by the author, "Bridging the Gap between Higher and Secondary Education in Russia," IHE, Spring 2000.) Nevertheless, countrywide implementation of GIFO is being planned.

At the master's degree level, the government will provide funding for training a limited number of students in only a few specialized fields. Other students will be expected to find support through corporate financing—which will be only sporadically available—or will have to pay the full tuition fees with their own (i.e., family) resources. However, even students who manage to obtain a degree at government expense, will not receive a free higher education. According to the ministry, they must either take jobs within their specialized fields for several years or otherwise reimburse the government for its funding.

Nevertheless, the ministry states that a transition toward total financing of higher education is not planned, and the government intends to fund 170 students per 10,000 population. However, the ministry does not explain how these numbers can be described as compatible with the current reforms—if, for example, only a small number of students get high enough scores on the national examinations to be able to earn a bach-