

Tapping ICT to promote teacher innovation, school-level change, and school-community linkages in rural Mongolia.

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Working with the Ministry of Education, Culture and Science (MOECS) and other national and local partners, the Asian Development Bank (ADB) is providing a grant-based assistance on Information and Communication Technology (ICT) for Innovating Rural Education in Mongolia (IIREM). The IIREM's main objective is to establish a replicable model for using ICT to bring education content, modern pedagogy, and information to poor rural schools and communities.

ICT in Mongolian Education

During preparation of the ADB-assisted Mongolian Second Education Development Project (SEDP), a special investigation assessed the potential of ICT to improve education quality and access. In addition to reviewing overall trends in the use of modern and mature forms of ICT in Mongolia, discussions were held with key stakeholder groups:

- central MOECS officials;
- staff of education offices in 4 largely rural aimags (provinces);
- principals, headmasters, teachers, and students of 26 mostly rural schools in 6 aimags;
- local nonformal education (NFE) facilitators; and
- nongovernment organizations (NGOs) active in education at the central and local levels.

On one hand, this assessment indicated that, to date, ICT in Mongolian education has largely been confined to the Informatics subject and to 8-10th graders in complete secondary (grade 1-10) schools, comprising only about half of all primary and secondary schools. At the same time, this dialogue elucidated important capacities and strengths on which support for ICT in basic education might build. In addition to MOECS' increasing emphasis on improving the Informatics curriculum, discussions found growing stakeholder interest in exploring a broader role of ICT in improving education across subjects and grade levels.

ADB Support and the IIREM Project

Based on this process, ADB's SEDP loan project includes support for ongoing MOECS efforts to augment Informatics instruction, expand student access to ICT, and integrate appropriate ICT into pre-service teacher training. To complement this support while enhancing equity and augmenting the long-term poverty reduction impact of these initiatives, ADB also developed the grant-based IIREM project to pilot test innovative approaches to use ICT to break down isolation from information and support mechanisms faced by rural teachers and other educators, thereby improving education quality, relevance, and access in disadvantaged rural areas.

Approved on 6 April 2004, the IIREM (homophonous to a Mongolian term for something eagerly awaited) is funded by a US\$1 million grant from the Japan Fund for ICT, financed by the Government of Japan. The Project will be implemented from May 2004 through June 2006, and will develop a new model for the use of ICT outside of the Informatics classroom. It will demonstrate the potential of cost-effective forms of ICT as a tool to improve education opportunities for poor students and rural communities, advancing education equity and quality by strengthening

- teaching in primary and secondary subjects,
- school administration, and
- NFE and other school-community linkages.

Target schools will consist mostly of grade 1-8 schools in poor rural soums (districts) in central-western Mongolia. The Project will provide target schools with a very minimalist set of ICT tools (1-2 robust portable personal computers, such as laptops) and software for use by teachers, school administrators, and local NFE facilitators. Schools will also receive complementary traditional education materials (e.g., activity books, posters, etc.). Most importantly, to ensure that ICT tools provided improve education outcomes, the project emphasizes key "soft components", principally:

- (i) capacity building for teachers, head teachers, and education officials in innovation to improve local education;
- (ii) generation of information resources and theme/subject-specific content (for skill upgrading and creative classroom applications) via email-based bulletin board systems (BBS) and CD-ROMs;
- (iii) building support networks to connect rural teachers and head teachers, education and culture departments (ECDs), and communities; and
- (iv) monitoring and evaluation (M&E).

Through these initiatives, the Project will support linkages across schools and dissemination of grassroots-level innovation in active learning and pupil-centered education.