This paper presents reflections on the author's work as an international consultant for the Asian Development Bank technical assistance (TA) project that developed the Mongolia Education Sector Strategy 2000-2005. It illustrates the use of a sector-wide approach to building a strategy for obtaining donor funding by laying out priorities across the education sector in Mongolia, showing how this particular project funded by the Asian Development Bank (ADB) was structured to incorporate broad-based participation of major donors and other stakeholders in the country. The paper includes a description of the Mongolian context and a framework for sector-wide approaches to educational assistance with examples drawn from the 1999 Mongolia education sector strategy study. It concludes with an assessment of strengths and weaknesses of this particular sector-wide approach based on the author's Mongolian experience.

The Mongolian Context
Mongolia is a landlocked country of 2.65 million inhabitants living in an area of 1.565 million square kilometers. The country is sandwiched between Russia and China, each of which also has a Mongolian population (0.5 and 3.5 million, respectively). Thirty-four percent of the population is under the age of 14. About 25 percent of the population resides in the capital city, Ulaanbaatar, 25 percent resides in other urban areas, and most of the remainder is nomadic. Estimated 1999 per capita gross domestic product (GDP: purchasing power parity) was $2,320 distributed as follows: 33 percent agriculture, 24 percent industry, and 43 percent services. Real GDP growth was about 3.5 percent in 1999. Forty percent of the population was living below the official poverty level (CIA World Factbook 2000).

The People's Government of Mongolia was declared in 1921 under a single-party government that held power until 1990. The Mongolian People's Republic was established in 1924 as the world's second communist country. Mongolia maintained close political and economic ties with the USSR, but was never one of its constituent republics. At the peak of this relationship, almost a third of Mongolia's GDP was provided by the Soviet Union. This included significant support (e.g. books, equipment, training of academics and researchers) for Mongolian education. Following the fall of the Soviet Union in 1989, the external financial support coming from the Council for Mutual Economic Cooperation (CMEC) evaporated. A new, political structure was established with the passage of a constitution in 1992 to guide the country's transition to a democratic government and a market rather than a command economy (Weidman and Bat-Erdene, 2002).

The Mongolian education system has several components: (1) preschool and kindergarten; (2) four years of primary education, beginning at age eight; (3) four years of lower secondary education, with compulsory education ending after Grade 8; (4) two years of upper secondary education; (5) postsecondary and higher education; and (6)
## Table 1. Basic Indicators for the Education Sector, 1995-1998

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1. State Expenditure Budget for education sector (million tugrugs, current prices)</td>
<td>23525.3</td>
<td>31188.4</td>
<td>42161.0</td>
<td>47815.5</td>
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<tr>
<td>2. Education sector as percentage of total State Expenditure Budget</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>- Education sector as percentage of total GDP</td>
<td>15.8</td>
<td>14.8</td>
<td>14.7</td>
<td>14.7</td>
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<tr>
<td>3. Percentage of students in public and private schools</td>
<td></td>
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<tr>
<td>- Public schools</td>
<td>78.0</td>
<td>74.0</td>
<td>72.0</td>
<td>70.8</td>
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<tr>
<td>- Private schools</td>
<td>22.0</td>
<td>26.0</td>
<td>28.0</td>
<td>29.2</td>
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<tr>
<td>4. Investment (million tugrugs)</td>
<td></td>
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<td></td>
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<tr>
<td>- In building reconstruction and vocational and technical schools</td>
<td>64.3</td>
<td>74.5</td>
<td>167.0</td>
<td>205.0</td>
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<tr>
<td>- In equipment and training facilities</td>
<td>20.0</td>
<td>32.5</td>
<td>97.0</td>
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<tr>
<td>5. Number of public universities institutes and colleges</td>
<td>29167</td>
<td>31391</td>
<td>35229</td>
<td>46185</td>
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<tr>
<td>- Number of students in all public postsecondary programs*</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>33</td>
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<tr>
<td>- Number of teachers</td>
<td>2693</td>
<td>2683</td>
<td>2799</td>
<td>3261</td>
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<tr>
<td>6. Number of private universities institutes and colleges</td>
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<td>11861</td>
<td>14405</td>
<td>19087</td>
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<tr>
<td>- Number of students in all private postsecondary programs*</td>
<td>41</td>
<td>51</td>
<td>57</td>
<td>71</td>
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<tr>
<td>- Number of teachers</td>
<td>383</td>
<td>522</td>
<td>617</td>
<td>925</td>
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<td>7. Technical and vocational secondary schools</td>
<td>7987</td>
<td>11308</td>
<td>12320</td>
<td>11650</td>
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<tr>
<td>- Number of students</td>
<td>495</td>
<td>767</td>
<td>742</td>
<td>656</td>
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<td>8. Number of primary and secondary schools</td>
<td>664</td>
<td>658</td>
<td>645</td>
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<tr>
<td>- Primary schools (Grades 1-4)</td>
<td>83</td>
<td>79</td>
<td>89</td>
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<td>- Lower secondary schools (Grades 1-8)</td>
<td>232</td>
<td>208</td>
<td>219</td>
<td>214</td>
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<td>- General secondary schools (Grades 1-10)</td>
<td>349</td>
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<td>- Number of students in primary and secondary schools</td>
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<tr>
<td>- Number of teachers in primary and secondary schools</td>
<td>19411</td>
<td>20090</td>
<td>18511</td>
<td>18118</td>
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<tr>
<td>9. Percentage of drop-outs</td>
<td>4.29</td>
<td>3.53</td>
<td>3.92</td>
<td>2.5</td>
</tr>
<tr>
<td>10. Number of kindergartens</td>
<td>660</td>
<td>667</td>
<td>660</td>
<td>658</td>
</tr>
<tr>
<td>- Number of children in kindergartens</td>
<td>64086</td>
<td>67972</td>
<td>70035</td>
<td>73955</td>
</tr>
<tr>
<td>- Number of teachers in kindergartens</td>
<td>2004</td>
<td>2098</td>
<td>2985</td>
<td>3015</td>
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</table>

*Data combine enrollments in postsecondary vocational (diploma), bachelors degree, and post graduate degree programs.

technical and vocational education and training (TVET). The TVET component comprises specialized upper secondary schools as well as post-secondary diploma programs housed in higher education institutions. The vestiges of its Soviet heritage remain in a separate science and technology component under the Mongolian Academy of Sciences, though there continue to be efforts to bring the research institutes and advanced degree granting authority of the Academy under the universities. Most Ph.D. programs have been moved into the universities, but the Academy retains control over the advanced research degree, the Doctor of Science. Non-formal and distance education activities cut across the entire system. At each succeeding level of education, females outnumber males, resulting in higher education enrollments in which there are twice as many females as males (Mongolia Education Sector Strategy 2000-2005). Table 1 shows several basic indicators of the Mongolian education system.

Ongoing reforms in Mongolian education have been designed to change from a highly specialized and compartmentalized system of education based on the Russian model to a more flexible system, including improving efficiency and effectiveness of education at all levels through rationalization and decentralization. Since 1990, there has been a relaxation of state control over curriculum in Mongolia with efforts at diversification based on local community needs. This includes eliminating the ideological content that had been prevalent, especially in social science and humanities disciplines, and shifting from a teacher-centered to a more student-centered curriculum. Administration of schools at all levels has been decentralized and less reliance placed on national planning approaches to the allocation of spaces for students in various types of curricula. The government has introduced measures aimed at cost sharing with parents and students so that education funding can be supplemented by sources other than the central government. Legislation has also been passed allowing private sector provision of education at all levels (Weidman and Bat-Erdene, 2002).

A Sector-Wide Framework for Education
Figure 1 shows a framework for sector-wide approaches to educational assistance. It is intended to reflect an interactive process in which the boundaries between segments are permeable rather than fixed. In the center of the figure is the Ministry of Education, generally the lead government agency in both planning and development of educational systems.

The top and bottom parts of Figure 1 show the two primary groups of experts who are responsible for the technical input to a project, including preparation and submission of reports to the government and ADB. International consultants must be citizens of ADB member countries and are chosen on the basis of the fit between their expertise and the qualifications specified in the Terms of Reference for a project. Selection may be done either through direct recruitment of specific individuals by ADB or through offering of tenders. In the latter case, ADB prefers to shortlist a small number of firms to be invited to bid. Local consultants are generally citizens of the host country, also selected for their specific expertise as it relates to project requirements and their knowledge of the national educational system. When international consultants are not conversant in the language(s) of the host country, local consultants often assist with interpretation at
meetings and of necessary government documents (though translation of longer documents, regulations, etc. is preferably done on a contract basis).

It is also important for project consultants to have ministry counterparts who are at least partially released from their normal duties to provide assistance with the identification of documents and data necessary for fulfilling the Terms of Reference. For the Mongolian education sector strategy study, a senior Ministry of Science, Technology, Education and Culture (MOSTEC) official was assigned to the project on a full-time basis and worked as one of the local consultants.

The left and right parts of Figure 1 represent the major actors in the educational funding process, both providers (donor agencies) and recipients (country stakeholders). Of course, the Ministry of Education in the center is the primary provider of education in a country, but it must work in cooperation with donors and stakeholders. Donor agencies (including development banks) work directly with relevant ministry officials in determining priorities for funding, often including officials in a Finance Ministry or similar entity along with representatives of the executive branch of government in final negotiations for grants and loans. Even when there is grant funding, donors tend to expect some type of contribution from the receiving government such as office space, supplies, transport, etc.

**Figure 1.** A framework for sector-wide approaches to educational assessment
In Mongolia, MOSTEC was the agency responsible for execution of the education sector strategy study. MOSTEC officials also worked with the ADB project officer in formulating the design and Terms of Reference for the project. This included responsibility for organizing a national conference to discuss the preliminary recommendations for the education sector strategy that had been developed during the course of the technical assistance project funded by ADB. Donors, stakeholders, and ministry officials were invited to participate in the conference (paid for with project funds) and contribute their observations. Both international and the two local consultants who had not worked previously for MOSTEC were selected directly by the ADB project officer based largely on his experience working with all of them over an approximately three-year period during which he had been responsible for ADB education projects in Mongolia.

Project Design
In 1996, ADB approved funding for the Education Sector Development Program (ESDP) in Mongolia, comprised of an integrated package of policy reforms, investments (loans), and associated technical assistance (TA) intended to make the sector cost efficient, effective and responsive to the emerging economy. The policy reforms included measures to (i) rationalize education structures and staffing, (ii) promote cost recovery schemes, (iii) support privatization and private provision of education, and (iv) develop a comprehensive policy framework for technical education and vocational training (TEVT). The investments were designed to (i) strengthen education management capabilities at central, local and institutional levels, (ii) reduce the numbers of teachers through a voluntary separation incentive, (iii) improve management and academic program development in higher education, and (iv) upgrade quality and relevance of educational content at the upper secondary and higher education levels. The associated TA was designed to strengthen the institutional capacity of the education sector to achieve the objectives of ESDP.

The Mongolian government has demonstrated strong commitment to undertaking needed reforms and improvement in the education sector and intends to continue sector-wide initiatives in a planned way for the next decade. The education sector strategy study was designed to lay the groundwork for planning by analyzing current experience and lessons learned; providing a clear articulation of Mongolia's educational policies, goals and objectives; and setting the parameters for educational and human resource development for 2000-05. The government wanted assistance for developing a planning document that would provide the analytical base for addressing key issues in human resource development, establish a rationale, suggest priorities for interventions in the sector, and provide a sound basis for mobilizing domestic and external resources.

The 1999 education sector strategy project was designed to support MOSTEC’s planning process for improving access, quality, relevance, cost-effectiveness and sustainability of the education and training sector in the context of Mongolia’s transition from a centrally planned economy to a market-oriented economy. The specific objectives were to assist MOSTEC to (i) analyze and refine the Government's policy and plan for educational development; (ii) define, elaborate and fine tune the Government's goals, objectives and strategies for educational development by sub-sector; (iii) establish broad priorities and strategic options for educational development for 2000-05; and (iv) prepare an overall
medium-term investment program broken into sub-programs/projects.

The scope of the project included (i) provision of two person-months of international consultant services in educational planning, two person-months of international consultant services in general education and training, and six person-months of local consultant services in education planning, general education and education finance; (ii) local research and data collection to update the 1993/94 sector analysis; and (iii) workshops with stakeholders designed to examine issues, debate options, and identify appropriate strategies for educational development in the medium-term.

For the work of the project, the Mongolian education sector was divided into six sub-sectors: pre-school education; primary and secondary education; TVET; higher education; science and technology; and non-formal and distance education. MOSTEC appointed a Working Group to oversee the project consisting of the international consultants (education planning expert and team leader, general education expert), the local consultants (education finance expert, educational planning expert, general education expert), the state secretary of MOSTEC and his three senior department directors, and six specialists representing the areas of emphasis in the sector strategy study.

**Project Outcomes**

An updated education sector study providing current data on all facets of the Mongolian education system was completed by the consultant team to inform the strategy building process. They also reviewed all donor projects between 1993 and 1999 to get an indication of their magnitude and impact. Figure 2 illustrates the range of donor assistance during this period. This also shows the success of the Mongolian government in using its historical alliance with Russia to capitalize on funding from both Western (especially the U.S.A, Germany, the United Kingdom, and the European Union) and Asian sources (especially Korea, Japan, and Australia).

In the early stages of strategy development, members of the Working Group made arrangements for meetings of a number of discussion groups specifically related to each of the sub-sectors of education. Participants in these groups included key administrators, principals, teachers and donor representatives. Their focus was to review sub-sector needs and to make proposals about future developments. These initiatives were refined and developed into draft strategies, projects and activities by work group members in conjunction with the consultants. The drafts were submitted to a national workshop on education sector strategies 2000-05, held in Ulaanbaatar on June 10, 1999, for further consideration and reactions.

The national workshop involved almost 100 invited participants. It included members of the parliament of Mongolia, officers of MOSTEC, officers from other ministries, key educational administrators and teachers, other stakeholders, and representatives of donor organizations. In addition to consideration of the national overview, participants were involved in small group reviews, which concentrated on draft strategies for each sub-sector. Animated discussions occurred within these groups. Probably the most frequent concern raised by stakeholders was that the government could be doing more to make certain that there is equity and uniform access.
Figure 2. Intervention of international assistance in Mongolian education (Source: MOSTEC, 2001)

**UNDP**
- Pre-school education (the Netherlands)
- ICT

**Denmark DANIDA**
- Support to primary and secondary education (community-based school, student-centered instruction, in-service training etc. 1992-1998)

**UNICEF**
- Primary school teacher training (1997 - 2001)
- Non-formal education for school drop-outs (1997-2001)

**OSI (Soros)**
- High education support program
- School 2001 (1999-2001)
- Step-by-step
- Civic education
- Political and social science reform

**World Bank**

**Australia (AUSAID)**
- Strengthening of training capacity in economics and management associated disciplines (1995-1999)
- Capacity building

**European Union (Tacis/TEMPUS)**
- TEMPUS JEPs, CPs
- NUM: Institional strengthening (1999-2001)
- Strengthening the Academy of Management (1999-2001)
- National Observatory (1997-1999)

**UNDP**
- Pre-school education (the Netherlands)
- ICT

**Asian Development Bank**
- HER Dev Sector Review and MasterPlan (1993-1994)
- Education Sector Dev Program (1997-2000)
- Education Sector Strategy Study (1999)

**UNESCO**
- Non-formal distance education (DANIDA (1992 – 2001)
- Basic learning materials initiative (DANIDA 1998-2000)

**UK (Save the Children)**
- Social workers training (1999-2000)

**Japan**
- Ag Univ (AU), Nat Univ (NUM), Tech Univ (MTU)
- Grass roots
- Scholarships

**Germany**
- Small business training
- Legal education
- Support to TVET (1999-2001)
- DAAD
- University Rector’s Conference

**Korea (KOICA)**
- Non-formal Education Center
- Food Technology College

**Canada**
- Knowledge Web

**USA**
- University affiliation (USIA)
- Fulbright & Humphrey Scholarships
Outcomes of the discussions were reported at a workshop plenary session. This reporting also included the determination of priorities for strategies within sub-sectors. Subsequently, the Working Group and consultant team reviewed outcomes from the workshop and prepared descriptions of the strategies along with associated projects and activities with cost estimates for the sector strategy report to be submitted for government approval. These recommendations were discussed with the State Secretary and Minister of MOSTEC, final revisions made, and the report submitted for government approval (Mongolia Education Sector Strategy 2000-2005, endorsed by Government Resolution No. 20, February 02, 2000).

Reflections
The process of developing strategies by sub-sector groups was a strength, because it brought together educators, consultants, MOSTEC officials, donors, and other stakeholders with a common interest and concentrated high levels of expertise and effort. However, greater emphasis could have been placed on close examination of common elements in the strategies so that common issues and linkages across strategies would have been recognized and carefully considered as part of future implementation arrangements. In fact, the sub-sector groups were quite consistent in identifying the following four areas as being central areas of concern, regardless of the level or content of education:

1) Alleviating deficiencies with buildings and facilities.
2) Providing teacher training and re-training.
3) Developing curriculum and providing textbooks and other educational materials.
4) Increasing student participation in education.

Most educational buildings are now more than 20 years old and are in acute need of renovation and refurbishment. Heating systems in many school buildings either do not function or are in poor condition, a major difficulty in a country that experiences such severe winter conditions. Much of the equipment in schools is also in poor condition. These physical requirements cannot be ignored and a vast quantity of resources will be needed to rectify them.

The reform of Mongolian education has required a revised curriculum at all levels and this, in turn, has created needs for new approaches to teacher pre-service education, teacher in-service training to accompany the provision of textbooks and educational materials. Although subsequent strategies may reflect slightly different approaches in different sub-sectors, these are simply variations on the more general theme of the impact of curriculum change. The third common element also comes from curriculum change and is highly inter-related with the second, provision of textbooks and materials appropriate for the new curriculum. The fourth element of vital importance is raising the level of student participation in educational programs. Each of these areas continue to be government priority.

Stakeholders' comments tended to reflect the policies of their employers, e.g., representatives from agencies in the United Nations favored inter-sectoral approaches and lowering the age at which Mongolian children normally begin school from 8 to 6. Of course, since the government was eager to receive donor funding, there was openness to
stakeholder comments, especially to representatives from those agencies known to favor funding projects in high priority areas.

Generally, organizations that are faced with an exercise in strategic planning find that their information sources for developing projects are incomplete and MOSTEC was no different in this regard. Consequently, a few of the strategies involved conducting needed research for understanding the current situation in Mongolia with respect to such things as labor market demands and associated training needs. Across the sub-sectors, there tended to be recommendations for some projects and activities based predominantly on research or data collection, largely so that implementation could be informed directly by current conditions in Mongolia. However, before implementation of any particular strategy begins, all strategies should be reviewed to ensure that, where it is appropriate for reasons of operational efficiency, research and investigations are conducted simultaneously or in an appropriate sequence (Mongolia Education Sector Strategy 2000-2005).

Probably the most common criticism of MOSTEC encountered during the course of the education sector strategy study was that donors and stakeholders were not routinely provided with ready access to information. One significant problem was that many MOSTEC reports and statistical documents were printed in Mongolian and translated in order to be useful to donors. The lack of funds in MOSTEC for reproduction of documents and statistical reports was another problem. There is, however, increasing demand on MOSTEC to prepare reports in English for agencies such as UNESCO that can be disseminated in electronic rather than print formats. Even the Mongolian National Statistical Office is now printing its annual statistical abstract in both English and Mongolian.

There were also concerns that the project was structured in a way that made certain the sub-sector teams working on strategy development would be dominated by MOSTEC officials. Of course, since MOSTEC was the executing agency for the education sector strategy study, it might be argued that such suspicions are inevitable. Non-MOSTEC stakeholders were included in each of the sub-sector teams, but MOSTEC officials were responsible for preparing all draft materials for the project report. Even though a few of the donors indicated that concerns they raised during sub-sector meetings were not incorporated into the report disseminated for the national education sector strategy workshop, most stakeholders were pleased with the opportunity to have their voices heard in the development of educational reform strategies. Only time will tell how well the implementation of the strategies recommended will continue to reflect the concerns of stakeholders.

While the process and outcomes from the 1999 Mongolian education sector strategy project may not have met all expectations from stakeholders, it did reflect a sector-wide approach. Most stakeholders were pleased to have the opportunity to provide feedback on the draft report, even if their view conflicted with MOSTEC officials. The consultant team and Working Groups tried to incorporate as many relevant stakeholder suggestions into the recommended strategies, even if they were in conflict. The general framework presented in this paper suggests major elements that are worth considering when designing projects to incorporate perspectives that are sector-wide and sensitive to
the particular interests of donors, teachers, administrators, government officials, and other stakeholders in the educational system.

References

