

Mid-Term Review Report of Japanese ODA Loan Project for FY2012

External Evaluator: Naomi Murayama (OPMAC Corporation)
Field Study: October 2012

Project Name: Indonesia “ICT Utilization Project for Educational Quality Enhancement in Yogyakarta Province” (L/A No. IP-542)

[Project Description]

Loan Amount / Disbursement Amount : 2,911 million yen / 881 million yen (as of July 2012)
Loan Agreement Signing Date : March 2007
Original Date of Project Completion : December 2012
Project Completion Date after review : December 2013
Loan Expiry Date : July 2015
Executing Agency : Ministry of Communication and Information Technology (KOMINFO)
Operation and Maintenance Organization :
1) During Implementation of the Project : KOMINFO and Yogyakarta Special Region (DIY) Government Education Agency (Dikpora)
2) After Project Completion : DIY Government, Kabupaten/ Kota (Operation and maintenance of Network environment and individual schools (ICT equipment at school computer labs))

[Project Objective]

The objective of the Project is to prepare IT and network facilities, develop e-learning system, and provide necessary goods and assistance for school activities in elementary and junior high schools in Yogyakarta Special Region (DIY) in order to enhance educational quality as a model utilizing ICT in the education sector in Indonesia. The roll-out of the model to other provinces will contribute to improvement of educational quality throughout Indonesia.

Main Consultant : PT. NUSATARA SECOM INFOTECH (Indonesia)/PT. DUTA ASTAKONA GIRINDA (Indonesia)/
PASCO CORPORATION (Japan) JV
Main Contractor ¹ : Local contractors

¹ The names and nationalities of consultants and contractors are entered only when they have been made public in JICA’s annual statistical report “List of Names of Major Companies and their Contract Amount of Japanese ODA Loan” (these are names for which the contract amount is not less than 1 billion Japanese Yen for contractors and not less than 100 million Japanese Yen for consultants). Where names have not been entered in JICA’s annual statistical report, they are described only as “local contractors/consultants” or “Japanese contractors/consultants”. These names can be provided by JICA.

Item	Ex-Ante Evaluation (2007)	Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)
Relevance	<p>(1) Relevance to development policy 1) Indonesia’s National Medium Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional: RPJM: 2004-2009) PRJM (2004-2009) places importance on improving the quality of basic education.</p> <p>2) The national education strategy plan (RENSTRA: 2005-2009) RENSTRA also states that increasing access to high-quality education is essential for the development of the country, and earmarks (1) increasing educational opportunities, (2) improving the quality of education, and (3) improving governance and accountability, as three pillars of the strategy. In RENSTRA, information and communications technology (ICT) is also referred to as playing a role in effective learning at the stage of basic education. The Ministry of Communication and Information Technology is also currently promoting a “one school, one computer lab program” to promote the use of ICT at schools. (Target: 50,000 schools)</p> <p>3) Yogyakarta Province DIY government prepared an “Education Quality Enhancement Program in Yogyakarta Special Territory Province 2005-2009”. The</p>	<p>(1) Relevance to development policy 1) Indonesia’s National Medium Term Development Plan (RPJMN: 2010-2014) “Education” is the second priority out of 11 National Priorities listed in RPJMN: 2010-2014. During the term of PRJM: 2004-2009, education indicators have been improved. However, RPJMN: 2010-2014 stated the need to increase the quality of basic education through strengthening and expanding the use of ICT in educational sector and so on.</p> <p>2) The national education strategy plan (RENSTRA: 2010-2014) Based on the belief that increasing access to high-quality education is necessary for national development, RENSTRA: 2010-2014 stipulated 13 strategic pillars, such as “Quality Improvement for the Educational Workforce, Education Institutions and the Graduates” and Strengthening and Expanding the Use of ICT in the Educational Sector”. KOMINFO played a central role in the “one school, one computer lab program” until 2005. However, the Ministry of National Education (MONE: current Ministry of Education and Culture) has been implementing the program since 2006 as it is strongly related to education (schools). RENSTRA: 2010-2014 also promoted strengthening and expanding the use of ICT but only around 8-9% of 300,000 schools in Indonesia have introduced ICT facilities. The program is not necessarily proceeding as planned.</p> <p>3) Yogyakarta Province “Education Quality Enhancement Program in Yogyakarta Special Territory Province 2005-2009” was originally prepared as a proposal</p>

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	<p>retraining of teachers, development of infrastructure for science and technology education, and education using ICT are the three mainstays in efforts to correct the disparity among schools and to improve the quality of education through the utilization of ICT.</p> <p>(2) Relevance to development needs 1) Situation and problems of the basic education sector in Indonesia:</p> <table border="1" data-bbox="427 762 1196 906"> <thead> <tr> <th></th> <th>Primary education</th> <th>Secondary education</th> </tr> </thead> <tbody> <tr> <td>NER: Net Enrolment Rate (%)</td> <td>94 (2004)</td> <td>56.4 (2000)</td> </tr> <tr> <td>Ratio of teachers with adequate qualifications (%)</td> <td>46.1(2000)</td> <td>66.5 (2000)</td> </tr> </tbody> </table> <p>Source: JICA</p> <ul style="list-style-type: none"> · Textbooks and teaching materials are also lacking in both quality and quantity. · According to the Program for International Student Assessment (PISA) undertaken in 2003 by the OECD with 15-year old students at the time they completed basic education, Indonesia ranked in the lowest group in all four subject areas. <p>Therefore, improving access to basic education by making primary education universal and by improving the rate of enrolment in secondary education, along with improving the overall quality of education, are important issues in the area of basic education.</p>		Primary education	Secondary education	NER: Net Enrolment Rate (%)	94 (2004)	56.4 (2000)	Ratio of teachers with adequate qualifications (%)	46.1(2000)	66.5 (2000)	<p>of the Project. Therefore, it has not been updated. The current DIY education policy focuses on “education based on culture”. An ordinance in line with RENSTRA (regional regulation on education management and institutions based on culture: Perda 05/2011) was established and education policy was conducted in accordance with the ordinance. Perda 05/2011 does not mention ICT clearly but the Project is in line with Perda 05/2011.</p> <p>This Project is highly relevant to RPJMN, RENSTRA: 2010-2014, and DIY education policy, therefore the relevance was high at the time of mid-term review.</p> <p>(2) Relevance to development needs 1) Situation and problems of the basic education sector in Indonesia:</p> <table border="1" data-bbox="1229 762 1998 906"> <thead> <tr> <th></th> <th>Primary education</th> <th>Secondary education</th> </tr> </thead> <tbody> <tr> <td>NER: Net Enrolment Rate (%)</td> <td>95.2 (2009)</td> <td>73.3 (2009)</td> </tr> <tr> <td>Ratio of teachers with adequate qualifications (%)</td> <td>24.6 (2009)</td> <td>73.4 (2009)</td> </tr> </tbody> </table> <p>Source: RENSTRA: 2010-2014</p> <ul style="list-style-type: none"> · At schools where education using PCs was conducted before project commencement, commercially available CD-ROM teaching material was used. For the use of CD-ROMs, schools needed to buy one CD-ROM for one PC, thus cost became a large burden. In addition, teachers could not monitor their students’ progress because each student studied using the CD-ROM individually. On the other hand, ICT teaching material developed by the Project can be shared among schools through IDC at no charge. Therefore schools do not need to pay the cost of ICT materials and the problem on the quantity (amount of teaching materials) is solved. Moreover, the software developed by the 		Primary education	Secondary education	NER: Net Enrolment Rate (%)	95.2 (2009)	73.3 (2009)	Ratio of teachers with adequate qualifications (%)	24.6 (2009)	73.4 (2009)
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		<p>Project is designed so that students' progress can be monitored by the teachers. Therefore, teachers can know each student's weaknesses and supplement their weak points by handouts if necessary. In addition, as the ICT materials include music, animated images and games in the contents, it is easier to gain students' interests than it was with traditional paper-based teaching materials. Therefore, all teachers, students and parents highly appreciate the ICT teaching materials developed by the Project.</p> <p>According to the Program for International Student Assessment (PISA) undertaken in 2009 by the OECD, Indonesia ranked 57 out of 65 countries (39 out of 40 countries in the 2003 PISA) in the reading comprehension test, 61 out of 65 countries (38 out of 40 countries in the 2003 PISA) in mathematical literacy, and 60 out of 65 countries (38 out of 40 countries in 2003 PISA) in scientific literacy. At this moment, Indonesia still ranks in the lowest group by international standards. Improving the overall quality of education, along with improving access to basic education by making primary education universal and by improving the rate of enrolment in secondary education are still important issues.</p>															
Effectiveness	<p>(1) Quantitative Effects <u>Operation and Effect Indicators</u></p> <table border="1" data-bbox="423 1190 1196 1334"> <thead> <tr> <th data-bbox="423 1190 869 1246">Indicator</th> <th data-bbox="869 1190 1016 1246">Baseline (2005)</th> <th data-bbox="1016 1190 1196 1246">Target (2012)</th> </tr> </thead> <tbody> <tr> <td data-bbox="423 1246 869 1278">Ratio of schools with IDC access (%)</td> <td data-bbox="869 1246 1016 1278">-</td> <td data-bbox="1016 1246 1196 1278">29</td> </tr> <tr> <td data-bbox="423 1278 869 1334">Number of teaching staff who have undergone training</td> <td data-bbox="869 1278 1016 1334">1,080</td> <td data-bbox="1016 1278 1196 1334">3,000</td> </tr> </tbody> </table>	Indicator	Baseline (2005)	Target (2012)	Ratio of schools with IDC access (%)	-	29	Number of teaching staff who have undergone training	1,080	3,000	<p>(1) Quantitative Effects <u>Operation and Effect Indicators</u></p> <p>For reorganizing the Operation and Effect Indicators, please refer to the closing paragraph, "Indicators for Ex-post Evaluation".</p> <table border="1" data-bbox="1225 1190 2004 1334"> <thead> <tr> <th data-bbox="1225 1190 1599 1246">Indicator</th> <th data-bbox="1599 1190 1816 1246">Mid-Term Review (2012)</th> <th data-bbox="1816 1190 2004 1246">Target (2014)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1225 1246 1599 1334">Number of teaching staff who have undergone training</td> <td data-bbox="1599 1246 1816 1334">2,170 (elementary & junior high schools)</td> <td data-bbox="1816 1246 2004 1334">3,130 (New target)</td> </tr> </tbody> </table>	Indicator	Mid-Term Review (2012)	Target (2014)	Number of teaching staff who have undergone training	2,170 (elementary & junior high schools)	3,130 (New target)
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	Number of students per PC in an elementary school	147	29	Number of students per PC in an elementary school	18	15 (New target)
	Number of students per PC in a junior high school	21	11	Number of students per PC in a junior high school	19	11
	Number of subjects utilizing ICT	2	6	Number of original ICT teaching materials that teachers have developed based on available ICT teaching materials(New indicator)	352 (elementary: 215 Junior high: 137)	500 (elementary: 300 Junior high: 200)
	Ratio of schools which have computer labs (%)	7	29	Source: Answers to the questionnaire		
	Net enrolment rate at elementary school level (%)	96.09	100 (target schools)	Note: New targets were set for the indicators which had already achieved the targets or could have higher goals. In addition, a new indicator was added to measure the project effect properly. At the time of the ex-ante evaluation, the target year was the year of project completion. However, it should be one year after project completion as it takes time for the effects to be seen in the case of education projects. On the other hand, the target year is usually two years after project completion. However, the external reviewer confirmed that it would set one year after project completion as it would be difficult to collect data at the time of the ex-post evaluation if the target year were two years after project completion.		
	Net enrolment rate at junior high school level (%)	76.42	100 (target schools)			
	Source: JICA			· Some of the indicators have been already achieved. Despite the delay at the time of project commencement, the effects have appeared steadily.		
	Note: IDC: Internet Data Center			(2) Qualitative Effects 1) Improvement of education quality		
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	1) Improvement of education quality			1) Improvement of education quality It is suggested that the improvement of education quality as a project impact is evaluated as it needs government policy and teachers' efforts etc. which are beyond the project scope, and because effectiveness does not appear in the short term. (For more information, please refer to the closing paragraph, "Indicators for Ex-post Evaluation".)		

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	2) Improvement of school management and administration	<p>2) Improvement of school management and administration</p> <ul style="list-style-type: none"> · In the Project, a block grant (subsidy) from the DIY Government to schools is allocated to “improve school management and administration”. The allocation is once per school, and it will be done before the procurement and installation of equipment. Schools use the block grant for preparation for the Project in ways such as the procurement of desks and chairs for the ICT rooms. The main objective of the grant is to improve school management and administration and if proposals prepared by schools are in accordance with the criteria of Indonesia, there is no problem in making a selection of schools to which the block grant can be allocated. In order to apply for the block grant, each school submits a proposal to Dikpora DIY through a bottom-up-approach (BUA). Dikpora examines the proposals and allocates the block grant to schools which meet the criteria. · Training is provided by the DIY Government, and is named BUA Management Training. The training includes accounting reporting with case studies for block grant reporting and school administration data processing. Furthermore, a consultant (PF: Professional Facilitator) assists schools in preparing proposals for the block grant. · Although the effectiveness of BUA Management Training cannot be quantified easily, the effectiveness of the training and assistance of PF has begun to be evident. For example, schools have acquired the ability to analyze their advantages and weaknesses through SWOT analysis in order to prepare their proposals. Also, schools that had never generated accounting reports evidenced documents acquired the ability to prepare a proposal and accounting reports which meet the requirements.

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	<p>(3) Impact</p> <p>1) Number of provinces in which education quality improvement projects utilizing ICT have been implemented</p> <p>2) Differences in the average scores on graduation exams in elementary and junior high schools</p>	<p>(3) Impact</p> <p>In the Mid-Term Review (hereinafter, “MTR”), two impact indicators which were set at the time of appraisal are re-examined and following were reviewed: 1) the setting of quantitative indicators as follows on the improvement of education quality, and 2) the replacement of some of the outcome indicators which are not directly related to the Project within the impact indicators.</p> <p>1) Improvement of education quality</p> <table border="1" data-bbox="1227 624 2000 823"> <thead> <tr> <th>Indicator</th> <th>Mid-Term Review (2012)</th> <th>Target (2014)</th> </tr> </thead> <tbody> <tr> <td>Difference in the average scores on graduation exams in elementary schools</td> <td>7.39</td> <td>7.60 (target schools)</td> </tr> <tr> <td>Difference in the average scores on graduation exams in junior high schools</td> <td>7.34</td> <td>7.50 (target schools)</td> </tr> </tbody> </table> <p>Source: Answers to the questionnaire</p> <p>2) Impact Indicators</p> <table border="1" data-bbox="1227 922 2000 1342"> <thead> <tr> <th>Indicator</th> <th>Mid-Term Review (2012)</th> <th>Target (2014)</th> </tr> </thead> <tbody> <tr> <td>Ratio of schools with IDC access (%)</td> <td>SD/MI: 69 (1385/2017) SMP/ MTs: 78 (396/507)</td> <td>SD/MI: 74 SMP/ MTs: 87</td> </tr> <tr> <td>Ratio of schools which have computer labs (%)</td> <td>SD/MI: 54 (1085/2017) SMP/ MTs: 73 (371/507)</td> <td>SD/MI: 56 SMP/ MTs: 78</td> </tr> <tr> <td>Number of subjects utilizing ICT</td> <td>4</td> <td>6</td> </tr> <tr> <td>Number of provinces in which education quality improvement projects utilizing ICT have been implemented</td> <td>Note 1)</td> <td>2</td> </tr> </tbody> </table>	Indicator	Mid-Term Review (2012)	Target (2014)	Difference in the average scores on graduation exams in elementary schools	7.39	7.60 (target schools)	Difference in the average scores on graduation exams in junior high schools	7.34	7.50 (target schools)	Indicator	Mid-Term Review (2012)	Target (2014)	Ratio of schools with IDC access (%)	SD/MI: 69 (1385/2017) SMP/ MTs: 78 (396/507)	SD/MI: 74 SMP/ MTs: 87	Ratio of schools which have computer labs (%)	SD/MI: 54 (1085/2017) SMP/ MTs: 73 (371/507)	SD/MI: 56 SMP/ MTs: 78	Number of subjects utilizing ICT	4	6	Number of provinces in which education quality improvement projects utilizing ICT have been implemented	Note 1)	2
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		Net enrolment rate at elementary school level (%)	97.53 (target schools)	97.87 (target schools)
		Net enrolment rate at junior high school level (%)	81.08 (target schools)	81.75 (target schools)
		<p>Source: Answers to the questionnaire</p> <p>Note 1: At the time of MTR, although KOMINFO was making efforts to propagate the Roll-Out-Plan prepared by the Project in 14 provinces at the e-Gov Forum held on November 2011, there was no case where other provinces had already adopt this model. For instance, when KOMINFO promoted ICT teaching materials in Malan, the Government of Malan Province expressed their strong interest. However, this has not yet led to their adopting the model. They can use the software at no charge but do not have sufficient hardware. On the other hand, BAPPENAS stated that it was not a problem of hardware but a lack of commitment towards the Project (i.e. lack of strong will to prepare the necessary fund.) According to JICA's document, KOMINFO, in cooperation with MONE, would make a survey to regions that are targeted for replication besides the dissemination of information. Therefore, it is expected that some provinces will adopt the project model and implement e-education through their own efforts. At the time of MTR, KOMINFO was planning to carry out a survey for the implementation of the project model in other provinces.</p> <p>Note 2: SD= elementary school, MI= Islamic elementary school, SMP= junior high school and MTs= Islamic junior high school.</p> <p>3) Ripple effects to schools and regions other than the project targets</p> <ul style="list-style-type: none"> · The target schools have "Open School" plans whereby non-target schools can use computer rooms at target schools to provide opportunities to access ICT teaching materials. However, at many target schools, the teachers are occupied with their own activities, such as information exchange on development of teaching materials among teaching staff. Therefore, the Project had not yet reached the stage where target schools share their knowledge to other schools at the time of MTR. · As noted above on the extension of the model to other provinces. 		

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	<p>(4) Other items influencing effectiveness</p> <p>1) Project Implementation structure, technical and financial aspects of Executing Agency</p> <ul style="list-style-type: none"> · Executing Agency: DG ICT Application of KOMINFO · The project implementation unit in the KOMINFO is a directorate of e-Government. · Technical Capacity of the Executing Agency: KOMINFO implemented a “one school one computer lab” program in 43 locations in 2005 and 50 locations in 2006. There was no particular problem with implementing the Project. To cooperate with the Ministry of National Education and DIY, KOMINFO will conclude agreements with these two organizations regarding the educational aspects. · Financial Capacity of the Executing Agency: KOMINFO and DIY will share the remaining portion of the project costs. <p>2) Cooperation with NGOs, universities etc. There are no plans to cooperate with NGOs or local universities.</p>	<p>(4) Other items influencing effectiveness</p> <p>1) Project Implementation structure, technical and financial aspects of the Executing Agency</p> <ul style="list-style-type: none"> · In contrast to the assumption at the time of appraisal, assets such as ICT equipment procured by the Project were registered under the central government by Indonesian law during project implementation and thus the phased cost-sharing of O&M from the central government to DIY Government was not implemented. On the other hand, the procedures of asset transfer are usually complicated and take time. (According to KOMINFO, it usually takes 2 to 3 years. Depending on the project, it can take more than 8 years for the transfer procedure to be completed after project completion. In Indonesia, there are some cases where the O&M budget is not allocated due to incomplete asset transfer when the executing agency is not the operation and maintenance agency. (e.g. Small Ports Development Project in Eastern Indonesia) · On the other hand, under the Project, each target school has been effectively allocated a part of BOS/ BOSDA (school management subsidy from the central government or provincial government) for the O&M costs for ICT equipment or, in the case of some schools, there is a plan to prepare a budget by using the BOS/ BOSDA from the next year so that O&M is sufficiently implemented. Moreover, it is possible for school committees to collect contributions, if any, and this fund can be applied to the O&M costs (there have been a lot of examples of this in the past). Problems with the financial aspects, therefore, are not expected at this moment. <p>2) Cooperation with NGOs, universities etc. Due to a strengthening of human resources skills / competence,</p>

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	<p>3) Cooperation with Japanese grant aid and/or technical cooperation The experience of the JICA Regional Educational Development and Improvement Program (REDIP) is to be utilized.</p> <p>4) Cooperation with other donors There are no plans to cooperate with other donors.</p> <p>5) Effect on the natural environment Category C in accordance with JBIC Guidelines for Confirmation of Environmental and Social Considerations (2003)</p> <p>6) Land Acquisition There are no plans to acquire land.</p> <p>7) Operation and maintenance (O&M) structure and the technical and financial aspects of the executing agency · During project implementation: DG of ICT Applications, KOMINFO and Dikpora, DIY · After project completion: to be transferred to the DIY Government, Kabupaten/ Kota (O&M of Network environment)</p>	<p>Dikpora DIY is in cooperation with the State University of Yogyakarta (UNY) for ICT utilization for learning, and with the Multi Media Training Center (MMTC) KOMINFO for multimedia technology.</p> <p>3) Cooperation with Japanese grant aid and/or technical cooperation The Project adopts the REDIP model (school-based management with community participation in order to follow needs precisely) for the application of BUA. However, the Project has basically been implemented with the involvement of the community according to the traditional ways of DIY.</p> <p>4) Cooperation with other donors There is no particular cooperation with other donors</p> <p>5) Effect on the natural environment There had been no particular negative effect on the natural environment at the time of MTR.</p> <p>6) Land Acquisition Antennas have been installed in government-owned land or within the sites of target schools. At the time of MTR, there had been no land acquisition.</p> <p>7) Operation and maintenance (O&M) structure and the technical and financial aspects of the executing agency [Institutional aspects of O&M] At the time of MTR, there had been no change with the following plan: · During project implementation: DG of ICT Applications,</p>

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	<p>and each school (ICT equipment at school computer lab) PC Technicians are responsible for O/M activity at each school. The cost of O&M is covered by the school and school committee with the support of Dikpora of Kabupaten/Kota (School Budget/subsidies) or DIY.</p> <ul style="list-style-type: none"> · The O&M structure has already started among schools which already have computer labs. The system for fostering ownership has been developed including O&M activities to be one of the criteria for school selection. 	<p>KOMINFO and Dikpora, DIY</p> <ul style="list-style-type: none"> · After project completion: to be transferred to DIY Government, Kabupaten/ Kota (O&M of Network environment) and each school (ICT equipment at school computer lab) <p>However, assets are not usually transferred smoothly, as mentioned above. In order to avoid the worst case scenario, KOMINFO has started to discuss with the Ministry of Finance (MOF) a simplified manner of asset transfer at the time of project completion of this project.</p> <p>O&M responsibility and costs are as follows:</p> <ul style="list-style-type: none"> · PC software (license fee): none (open source) · IT connection fee: none (connection through radio with ISM/unlicensed band) · IDC operation and maintenance (staffing and administration) <ul style="list-style-type: none"> (a) IDC to Dikpora Kabupaten/Kota: Dikpora DIY (b) Dikpora Kabupaten/Kota to school: Dikpora Kabupaten/Kota · IDC operation and maintenance (helpdesk operation, hardware maintenance): Dikpora DIY · School Antenna: school · Trunk Antenna: Dikpora DIY · Electricity for PC: school <p>In the institutional aspects of O&M, the school lab coordinator at each school in cooperation with PF and DIY helpdesks (“Education Communication Technology Center”, BTKP, as a continuing effort of the DIY Government) implements O&M activities. At the time of MTR, skill transfer is gradually being engaged from PF to the helpdesk. The school lab coordinators and teachers rely on assistance from the helpdesk and there has been no problem in this point. In</p>

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		<p>cases where teachers are also the school lab coordinators, dissemination among teachers of the training results of ICT equipment maintenance, ICT utilization and teaching material development has not been actively achieved. However, these are rare cases at this moment. Interviews with teachers show that this can be attributed to lack of incentive. Dikpora and consultants of the Project think that basically teachers should be dedicated to teaching and Dikpora continues a dialogue with schools that have problems with school lab coordinators in order that they can solve the problem. This is a potential issue that might affect effectiveness and sustainability of the Project in the future.</p> <p>[Financial aspects of O&M] As mentioned above, each school allocates a part of BOS/ BOSDA to the O&M cost of ICT equipment. Schools that have just finished installing the equipment plan to allocate a budget for the O&M costs of equipment from the next fiscal year. Moreover, it is possible that school committees will collect contributions, if any, and that the fund can be applied to the O&M cost. Therefore, no problems on the financial aspects are expected at this moment.</p> <p>[Technical aspects of O&M] · The training on O&M has been implemented. In the training, a manual on usage and troubleshooting is distributed. · In many cases, troubles are solved by PF, the helpdesks and school lab coordinators. · In the case of equipment fault, schools use the service of suppliers due as warranty is still valid at the time of MTR. · Although teachers in some schools have some difficulties in using the ICT teaching materials because they have never used</p>

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		<p>computers, study meetings on PC utilization and the development of teaching materials are held with other teachers. Basically this problem might be only attributable to lack of adaptation to PCs. The problem will be solved with time.</p> <ul style="list-style-type: none"> · Some schools have the technical difficulty that some PCs cannot be logged in when every student tries to log in at the computer at the same time. <p>[Good practices] Number of visited schools during the field study: 10</p> <ul style="list-style-type: none"> · Activities such as study meetings on PC utilization and the development of teaching materials together with other teachers can be seen at some schools. · There is a school which has had a competition within the school in order to motivate teachers for material development. · There is a school which tries to update the contents of its ICT teaching materials at least once a month as school policy. · Despite the fact that only a few months have passed since the commencement of ICT equipment use, teachers have already developed teaching materials in subjects other than mathematics and science at some schools.
Efficiency	<p>(1) Project Outputs Of the bellow, the Japanese ODA Loan portion is only the underlined part.</p> <p>1) Construction works (a) ICT Equipment Development <u>a) ICT equipment for schools</u></p> <ul style="list-style-type: none"> · For 500 target schools Of which: 300 elementary schools; 200 junior high schools 	<p>(1) Project Outputs Of the bellow, the Japanese ODA Loan portion is only the underlined part.</p> <p>1) Construction works (a) ICT Equipment Development <u>a) ICT equipment for schools:</u></p> <ul style="list-style-type: none"> · There is no change. Of package 1 to 3, the ICT equipment for packages 1 and 2 had

Item	Ex-Ante Evaluation (2007)	Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)
	<p>(per school: 20 PCs for students and one PC for a teacher, PC related equipment (projectors etc.), network facilities (IDC, which contracted with an internet provider, plays the role of gateway to connect with each school; Wi-Max systems will be employed), school antenna installation and trunk antenna etc. for one computer lab.)</p> <p><u>b) ICT equipment for project offices in KOMINFO and DIY</u></p> <ul style="list-style-type: none"> · Installation of PCs and related equipment for project administration <p><u>c) ICT equipment for IDC</u></p> <ul style="list-style-type: none"> · Gateway antenna (for Wi-Max), relay extender antenna, server, router etc. <p><u>d) Upgrading of schools' electric power capacity</u></p> <ul style="list-style-type: none"> · Upgrading of electric power receiving facilities and amperage at target schools <p><u>e) ICT operation and maintenance</u></p>	<p>been installed. (500 schools (200 elementary schools and 150 junior high schools) have been already selected. At 350 schools, ICT equipment has been installed.) At this moment, package 3 is under the bidding process. Pre-Qualification (PQ) for package 3 was advertised three months ago. However, KOMINFO judged that an antenna study was necessary before the bidding process for package 3 and the bidding process was interrupted. (In the end, the antenna study was not conducted). Now it has been re-advertised.</p> <p><u>b) ICT equipment for project offices in KOMINFO and DIY</u></p> <ul style="list-style-type: none"> · There is no major change. <p><u>c) ICT equipment for IDC</u></p> <ul style="list-style-type: none"> · A new server was installed and the related equipment was procured additionally as the existing server was not able to handle all the school traffic. · As the Wi-Max system assumed in the Special Assistance for Project Formation (SAPROF) was restricted by the Indonesian government, it could not be brought in. Therefore, it was necessary to change the available system so that the number of relay extender antennas was increased. (The number of relay extender antennas: SAPROF: 4 to actual: 11) <p><u>d) Upgrading of schools' electric power capacity</u></p> <ul style="list-style-type: none"> · There is no major change. <p><u>e) ICT operation and maintenance</u></p> <ul style="list-style-type: none"> · Daily O&M for installed equipment is in place.

Item	Ex-Ante Evaluation (2007)	Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)
	<p>(b) Education Quality Enhancement (EQE) Activities (block grant)</p> <ul style="list-style-type: none"> · Providing block grants for EQE activities based on a bottom up approach (based on proposals prepared by school committees, composed of parents and communities, and schools) at 500 target schools. <p>(c) Training for Teachers and School Management and Administration</p> <ul style="list-style-type: none"> · Training for teachers: computer skills, information processing skills and utilization of ICT in education; and · Training for school management and administration staff: school administration in accounting reporting and facilitation skills. <p>(d) ICT Teaching Materials Development</p> <ul style="list-style-type: none"> · Purchase of e-education materials for math and science and development of original teaching materials by teachers 	<p>(b) Education Quality Enhancement (EQE) Activities (block grant)</p> <ul style="list-style-type: none"> · As mentioned above, the block grant for school management and administration is allocated based on proposals submitted by schools via BUA. So far, 110 schools in 2010 (60 elementary schools and 50 junior high schools) were selected and the block grant was allocated to these schools in December 2010 and March 2011. In addition, 240 schools in 2011 (140 elementary schools and 100 junior high schools) were selected and the block grant was allocated to these schools in June 2011. <p>(c) Training for Teachers and School Management and Administration</p> <p>a) ICT utilization training</p> <ul style="list-style-type: none"> - Training for ICT literacy (Linux) - Training for school lab maintenance - Teaching material development training <p>b) BUA management training</p> <ul style="list-style-type: none"> - Financial reporting (with a case study for block grant reporting and school administration data processing) <p>(d) ICT Teaching Materials Development</p> <ul style="list-style-type: none"> · There is no change. · Teaching materials have been steadily developed as mentioned in the section on Operation and Effect Indicators. · Regarding equipment, despite the fact that there are about 30 students per class depending on the school, 21 PCs (including one computer for a teacher) are distributed to each school across the board. Therefore, sometimes two students jointly use one PC and one student can use one PC in the same class. Some teachers pointed out that this brought a sense of unfairness among students.

Item	Ex-Ante Evaluation (2007)	Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)												
	<p>(e) IDC System Development Education data base system development in DIY, Help-desk system development, E-learning system development, Web-site system development and Network system development</p> <p>2) Consulting services</p> <p>(a) Detailed design, assistance for bid processing, construction supervision, etc.</p> <p>(b) Assistance for preparation of proposals by each school</p> <p>(c) Preparation of training guidelines and their instruction</p> <p>(d) Assistance for Teaching Materials Development</p> <p>(e) Planning the implementation of overseas training (in Kyoto Prefecture)</p> <p>(f) Assistance for improvement of exam questions</p> <p>(g) Assistance for preparation of Roll Out Plan</p> <p>(2) Project Inputs</p> <p>1) Project Cost</p> <table border="1" data-bbox="423 1286 1167 1345"> <tr> <td>Total cost</td> <td>4,376 million yen</td> <td>100%</td> </tr> <tr> <td>Japanese ODA Loan portion</td> <td>2,911 million yen</td> <td>66.5%</td> </tr> </table>	Total cost	4,376 million yen	100%	Japanese ODA Loan portion	2,911 million yen	66.5%	<p>(e) IDC System Development There is no change.</p> <p>2) Consulting services</p> <ul style="list-style-type: none"> · General work management aspect (including assistance for preparation of Roll Out Plan) · Infrastructure development aspects · Assistance for development of teaching materials · Assistance for improvement of examination materials · Assistance for training (ICT utilization, BUA management and overseas training) · Reporting etc. <p>Man-month of consulting services (M/M) is modified as follows: (Original contract: No.1/JICA/ EGOV/KOMINFO/VIII/2009 to Amendment: No.6/JICA/EGOV/KOMINFO/II/2012, February 28,2012)</p> <p>International: 33M/M (original: 3)→3 M/M National:196M/M (original: 281)→ 301 M/M</p> <p>Regarding the international consultant, a simple error was modified. As for other parts, M/M for some staff was increased slightly and a member of administration staff was added since the original workload was not realistic.</p> <p>(2) Project Inputs</p> <p>1) Project Cost</p> <table border="1" data-bbox="1225 1286 1995 1345"> <tr> <td>Total cost</td> <td>1,188.7 million yen</td> <td>100%</td> </tr> <tr> <td>Japanese ODA Loan portion</td> <td>962 million yen</td> <td>80.9%</td> </tr> </table>	Total cost	1,188.7 million yen	100%	Japanese ODA Loan portion	962 million yen	80.9%
Total cost	4,376 million yen	100%												
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Item	Ex-Ante Evaluation (2007)			Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)		
	KOMINFO	558 million yen	12.8%	KOMINFO	118.7 million yen	10.0%
	DIY	907 million yen	20.7%	DIY	108 million yen	9.1%
	<p>2) Implementation Schedule From April 2007 to December 2012 (68 months)</p>			<p>· O&M cost is not included in the above due to difficulties in calculating exactly using a part of BOS/BOSDA. It is thought that the actual O&M cost for the Indonesian side is larger than in the above figures.</p> <p>· The disbursement rate of the proceeds of the Japanese ODA loan is only around 30% and this is low. The major reason for the low rate is thought of as being the appreciation of the Japanese yen. The disbursement rate is expected to remain at the rate of 50% even if it is paid for undisbursed items for which JICA has already finished its review and concurrence, the procurement of remaining packages and an extension of consulting services until project completion.</p> <p>2) Implementation Schedule April 2007 to December 2013 (schedule) (80 months: to be delayed for 12 months) [Main reasons for delay of the Project]</p> <p>· Time needed to select the consultant. · Procurement of equipment delayed.</p> <p>Both the above are attributed to delays in procedures in Indonesia. Especially the first package of equipment procurement took additional time due to a review of the plan.</p> <p>As the Project has made up for the delay through the past implementing process, it might no longer be necessary to extend the planned final disbursement date although project completion will be delayed for one year.</p>		

Item	Ex-Ante Evaluation (2007)	Mid-Term Review results and Ex-Post Evaluation results estimated at the time of Mid-Term Review (2012)
	(3) Internal Rate of Return Calculation of profitability is not considered appropriate for education projects and therefore no calculation will be done.	(3) Internal Rate of Return Due to the nature of the project, a quantitative analysis of the internal rate of return was not possible.
Lessons learned and Recommendations	<p>To JICA:</p> <ul style="list-style-type: none"> · Information on laws and regulations that can affect the Project should be obtained and understood at the project preparation stage. Regarding this project, it should have been understood at the SAPROF or appraisal stage that the Wi-Max system is regulated by law, and that asset transfer is necessary in Indonesia in cases where the executing agency during project implementation and the O&M organizations after project completion are different. The change in communication methods led to delay in the procurement of equipment at the beginning of the Project. It seems unlikely that the asset transfer problem directly affects O&M at this moment. · The project should ensure a flexible response at the implementation stage. As equipment will soon age, particularly in ICT projects, the necessity for a flexible response was recognized at the time of appraisal of the Project. In accordance with this recognition, JICA Indonesia Office has permitted flexible changes to the executing agency at the implementation stage so that there has been progress in making up delays and in the modification of the scope from the beginning of the project. This Project is a good practice in project supervision and implementation. <p>To the Indonesian side:</p> <ul style="list-style-type: none"> · It is desirable that the procedures of procurement and asset transfer become as simple as possible. In the Project, KOMINFO seeks to find a simpler way of asset transfer by early discussion with MOF. It is better to attain agreement among the related organizations by the time of project completion to ensure a good practice in simple procedures by continuing discussions with the parties concerned. · The school lab coordinator problem should be solved by project completion. Teachers should be devoted to teaching including teaching material development. Although budget constraints might be one of the causes of the problem, one option to solve the problem would be for several schools to share one full-time coordinator who can provide training on PC maintenance and teaching materials development. PC maintenance will be necessary even after project completion and so the school lab coordinator should not be employed on a temporal basis but as a full-time member of staff. In addition, another idea is to encourage teachers' willingness to develop teaching materials by granting an award for good materials and by holding competitions. · Regarding the project objective, "improvement of education quality", after reconfirming the definition of "improvement of education quality" among the parties concerned, the parties should reconsider what should be aimed for in the project period and what the appropriate evaluation indicators are for the aim by reference to the suggested indicators in this MTR. At the time of MTR, a large amount 	

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	<p>of the loan remains. Therefore, it is possible to utilize the remaining amount within the reconfirmed project objectives. However, if the project scope is to be expanded, it is necessary that an appropriate plan of project scope and period be completed before the planned final disbursement date.</p>	
Indicators for the Ex-post Evaluation	<p>Indicators assumed at the Ex-Ante Evaluation</p> <ol style="list-style-type: none"> (1) Ratio of schools with IDC access (%) (2) Number of staff who have undergone training (3) Number of students per PC in elementary school (4) Number of students per PC in junior high school (5) Number of subjects utilizing ICT (6) Ratio of schools which have computer labs and use PCs during class (7) Net enrolment rate at elementary school (%) (8) Net enrolment rate at junior high school (%) 	<p>It is suggested that the evaluation indicators are reorganized or clarified as mentioned in the section of effectiveness and impact due to the mixing of several levels' indicators. The basic concepts are as follows:</p> <ol style="list-style-type: none"> 1) Outcome indicators should be limited within items strongly related to the Project objectives and outputs. (Relevant indicators: a) number of staff who have undergone training, b) number of students per PC in elementary school, c) number of students per PC in junior high school, and d) amount of ICT teaching materials that teachers have developed themselves based on available ICT teaching materials) 2) It should be an impact indicator that items should be evaluated at provincial level. (Relevant indicators: a) ratio of schools with IDC access, b) ratio of schools which have computer labs and use PCs during class. Reason: both results must be 100% if they are set as direct outcomes of the Project.) 3) At the time of the ex-ante evaluation, the target year was the year of project completion. However, this should be one year after the project completion as time is needed for effects to be seen in the case of education projects. The target year is usually two years after the project completion. However, the external reviewer confirmed it would set one year after the project completion as it could be difficult to collect data at the time of the ex-post evaluation if the target year was two years after project

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		<p>completion.</p> <p>4) The indicators should be limited within available data.</p>