## I. Outline of the Project

<table>
<thead>
<tr>
<th>Country</th>
<th>Project Title</th>
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<tbody>
<tr>
<td>Islamic Republic of Pakistan</td>
<td>District Health Information System Project for Evidence-Based Decision Making and Management</td>
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<table>
<thead>
<tr>
<th>Issue/Sector</th>
<th>Cooperation Scheme</th>
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<tr>
<td>Health</td>
<td>Technical Cooperation Project</td>
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<tr>
<th>Division in charge</th>
<th>Total Project Cost</th>
<th>Partner Cost</th>
<th>Partner Country’s Implementing Organization</th>
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<tr>
<td>Pakistan Office</td>
<td>Approx. 320 million JPY</td>
<td>Approx. 320 million JPY</td>
<td>National Health Information Resource Center (NHIRC) (up to June 2011) National Institute of Health (NIH) (after July 2011)</td>
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<tr>
<th>Period of Cooperation</th>
<th>Supporting Organization in Japan</th>
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<tr>
<td>(R/D): April 25, 2009</td>
<td>System Science Consultants Inc.</td>
</tr>
<tr>
<td>*Project period: July 15, 2009 – July 14, 2012</td>
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### 1. Background

In 1992, Health Management Information System (HMIS) was developed by USAID, however, there were emerging requirements in HMIS to make it compatible with the information needs from the provincial and district levels, particularly in the context of health systems devolution from the central government to the local government in 2001. Under this situation, JICA supported the Development Study on Improvement of Management Information Systems in Health Sector from January 2004 to March 2007, upon a request of the Government of Pakistan. District Health Information System (DHIS) was developed as a result of the study.

NHIRC, the national authority on information system, formulated a plan for nation-wide scale-up of DHIS, DHIS has not been kept in a proper use mainly due to prolonged mixing of HMIS and DHIS at primary and secondary medical facilities.

Taking the above situation into consideration, the Government of Pakistan, through NHIRC, requested JICA to extend technical cooperation for District Health Information System Project for Evidence-Based Decision Making and Management, with the purpose that routine operation and budget planning are to be practiced in an evidence-based manner, through DHIS, nationwide in Pakistan.

### 2. Project Overview

Through the project, the Government officers in PHD and DHO is expected to be able to use and maintain DHIS software in a proper manner after the installation of DHIS software, training on DHIS such as data collection, data input and data use, and monitoring activities conducted by the Japanese experts.

1. **Overall Goal**

   Policy and strategies for health services are developed in an evidence-based manner, through sustainable DHIS, nationwide in Pakistan.

2. **Project Purpose of the Project**

   Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan.
(3) Outputs
1) Project implementation plan in the target districts is approved at JCC.
2) PHDs / DHOs staff is adequately trained on the DHIS operation.
3) The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.
4) The DHIS data are entered into the DHIS software, processed and analyzed at PHDs and DHOs.
5) By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified respectively at PHDs and DHOs.
6) The DHIS is adequately coordinated among the stakeholders.

(4) Inputs
Japanese Side: 5 Long-term Experts, Operational Cost
Pakistani Side: Counterpart, Office Space for Japanese Experts, Local Cost

II. Evaluation Team

<table>
<thead>
<tr>
<th>Members of Evaluation Team</th>
<th>Team Leader: Mr. Toshiya Sato, Senior Representative, JICA Pakistan Office</th>
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<tr>
<td>Evaluation Team</td>
<td>Evaluation and Analysis: Mr. Kunio Nishimura, ICONS Inc.</td>
</tr>
<tr>
<td>Team</td>
<td>Cooperation Planning: Mr. Tomoyuki Nagita, JICA Pakistan Office</td>
</tr>
<tr>
<td>Type of Evaluation:</td>
<td>Terminal Evaluation</td>
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III. Results of Evaluation

1. Confirmation of Outputs
(1) Project Purpose: Almost achieved
   In 87 DHOs of 100 target districts, routine operation (resource allocation) and budget planning have been practiced based on the analysis of DHIS data which has been collected for more than 3 consecutive months.

(2) Outputs
Output 1: Achieved
   Strategic planning for scaling up DHIS was approved at the first JCC meeting held on June 2010, as a result of collection of basic information through base-line survey and interviews with relevant stakeholders.

Output 2: Achieved
   At all PHDs (including AJK and FATA) and 100 target DHOs, the revised DHIS software, a platform for DHIS data input, was installed. Training on collection of information related to medical facilities was conducted through Cascade Training Method and 173 master trainers at the district level 9,586 staff at the primary and secondary level medical facilities has been trained. Moreover, for the purpose of DHIS data input, analysis and use at PHD and DHO, 81 provincial master trainers and 129 district master trainers were trained. Through these trainings, each province successfully established the training system involving master trainers at the provincial and district levels.

Output 3: Partially achieved
   According to each PHD, new DHIS tools and instruments have been properly distributed. Even though the Japanese experts found through their monitoring activities that the distribution was not done in a proper manner in some areas, it can be said that the goal of proper distribution has almost been achieved.

   Compliance rates of DHIS monthly report from public primary and secondary level medical facilities to DHOs were kept more than 90% at the last 6 months of the project in 39 districts (39 %) out of 100 target districts. The low compliance seems to be caused by shortage of DHIS tools and instruments due to delay in release of the required budget for printing, lack of coordination with stakeholders and delay of date input.

Output 4: Achieved
As a result of training on data input/process/analysis, one or more staff in each PHD and each target DHO has been able to enter the collected DHIS data, process, analyze, and make necessary tables and charts for analysis.

Output 5: Almost achieved
Staff in 99 DHOs out of 100 target DHOs as well as all PHDs has been trained on use of DHIS data. By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting have been identified in 87 DHOs.

Output 6: Achieved
Federal level meetings (1 S/C, 4 JCC, 2 TAG), provincial level meetings (3 PMC, 12 WG) and 2 Partner Meetings were conducted for discussion for scaling up DHIS.

2. Summary of Evaluation Results
(1) Relevance: Almost high
It has been found that Project Purpose and Overall Goal are consistent with National Health Policy 2009 (Final Draft) as well as Japan's Assistance Policy for Pakistan; therefore, their level of coherence with development policy seems to be high. As the devolution of the Ministry of Health was executed in June 2011, scaling up DHIS will be continued in each province based on provincial health strategy, Moreover, as a project in the field of health information in which Japan has maintained advantage through the Study on Improvement of Management Information Systems, the project was implemented keeping in close touch with donors and NGOs involved in health issues, which contributed to the high level of Relevance in the evaluation.

(2) Effectiveness: Almost high
As 6 Outputs were prepared in a way that the achievement of each output leads smoothly to the achievement of Project Purpose, Taking Output 1 as a base of formulation of consensus among the Project stakeholders, installation of software (output2), training staff of PHD and DHO on data input, aggregation, analysis (output 3 and 4), and utilization of analyzed data (output5) have been implemented and contributed to achievement of the Project Purpose. Output 6 aimed at coordination with relevant government authorities and development partners, it facilitated smooth implementation of the Project.
Project Purpose has almost been achieved in spite of such difficulties as the postponement of activities by flood disaster 2010, the devolution of the Ministry of Health, and the restriction of the project members’ activities in particular areas due to security reasons.

(3) Efficiency: Moderate
Inputs by Japanese side were almost appropriate, while those of Pakistani side were not always appropriate, the reason of which includes the decrease of number of the targeted districts following the fact that some of the districts have not secured sufficient budget for the project activities.

(4) Impact: Moderate
As there is no organization responsible for scaling up DHIS nationwide, the achievement of Overall Goal, which is to use DHIS directly as a tool for formulating a federal health policy, will be difficult to be realized. However, the fact that DHIS data has been used for budget planning and decision-making in targeted provinces and districts, indicates that it is expected that DHIS data will be utilized in other districts in case DHIS software is installed in those districts in the future. No negative impact will be foreseen at the moment.

(5) Sustainability: Federal level- Low, Provincial level- Moderate
Even though it is desirable that a federal organization keeps involvement in DHIS activities, there is no single organization that is responsible for health administration in an integrated fashion at the federal
level as due to the devolution of the Ministry of Health in June 2011, which keeps the level of sustainability at the federal level low at the moment. However, PHDs show their intention to formulate their health policy and scale up DHIS by using their own budget after the termination of the project, which will be a positive implementation for sustainable use of DHIS.

3. Factors that promoted realization of effects
(1) Factors concerning to Planning
- As a way to achieve the Project Purpose, training was planned and implemented in a logical manner (1. Data Collection, 2. Data Analysis, 3. Data Use) to ensure the effectiveness of the project.

(2) Factors concerning to the Implementation Process
- Information related to DHIS was exchanged among PHDs through monthly-held WG meetings, which contributed to fostering awareness among PHDs considering the prevalent friendly rivalry and improving the possibility of the sustainable use of DHIS.
- Cascade training system was adopted as a sustainable system so that PHD staff who got trainings from Japanese Experts can conduct the same trainings for DHO staff. The PHD and DHO staff was trained in an efficient and effective manner by the training system.

4. Factors that impeded realization of effects
(1) Factors concerning to Planning
- As some districts have failed to allocate adequate budget for the implementation of the project, the number of target districts was decreased.

(2) Factors concerning to the Implementation Process
- NHIRC’s uncooperative attitude throughout the project period of three years affected the achievement of the project including the delay of the project.
- C/P at the federal level has not been officially appointed for some months since the devolution of the Ministry of Health, due to which the federal government was not involved with DHIS during the post devolution period and Japanese Experts made efforts to maintain a good relationship with PHDs to ensure the sustainability.
- Due to the security constraint, the project activities in some provinces and districts, including FATA and AJK were restricted. The visits to those restricted areas have been replaced with inviting those people living in the area to their neighboring area thought to be security-wise safe in order to mitigate the risk against efficient implementation of the project.

5. Conclusion
Project Purpose has almost been achieved by efforts by staff in Provinces/Districts/Health facilities and flexible judgment for change of plan by Japanese experts, including the decision that those districts which failed to secure budget enough for the implementation of the project shall be excluded from the target districts.
Though it is not clear whether national health policy will be finalized due to the devolution of the Ministry of Health, it is expected that PHDs can scale up DHIS if they secure budget necessary for DHIS because each province definitely requires DHIS data for their policy and planning at the district level.

6. Recommendations
(1) Sustainable use of DHIS
As mentioned in 2 (3), insufficient budget, including cost for DHIS software maintenance, will negatively affect the implementation of the project; therefore, even after the completion of the project each province is requested to secure the budget, including cost for DHIS software maintenance, necessary for the operation of DHIS, for the sustainable use of DHIS.
(2) DHIS in the non-targeted districts
As mentioned in 2 (4), it is expected that DHIS data will be utilized nationwide in case DHIS software is installed in all the districts; therefore, DHIS software should be installed in those districts in which DHIS software was not installed during the project period as soon as possible after concerned PHDs arrange hardware required for each DHO.

(3) Involvement of Federal Government on DHIS
As mentioned in 2 (5), there is no federal level organization that is clearly designated as an organization responsible for DHIS due to the devolution of the Ministry of Health in June 2011, which will negatively affect the level of sustainability. It is strongly hoped that the involvement of federal government should be strengthened in order to utilize DHIS as a nationwide unified health system in the long term.

7. Lessons Learned
(1) Conditions necessary for the start of the project
As mentioned in 4. (1), the number of target districts was decreased because some districts did not allocate adequate budget for the implementation of the project. We need to be noted that all the prerequisites for the commencement of the project shall be clarified and shared with stakeholders in order to avoid any unnecessary change in the scope of the project during the project implementation period.

(2) Appropriate Response to Problematic Implementation Organization
As mentioned in 4. (2), NHIRC’s uncooperative attitude led to the serious delay of the implementation schedule of the project. Any issue over Implementation Organization’s attitude should have been resolved through the involvement of high-ranking officers of their parent ministry as well as ODA counterpart organization (e.g. Ministry of Health and EAD in Pakistan).

8. Follow-up Situation
Following the request from the Government of Pakistan, JICA will plan to make a contract with a software company, asking them for the maintenance of the latest DHIS software (Ver. 1.03) up to March 2013 at the longest.