パキスタン・イスラム共和国
根拠に基づく意思決定及び管理のための
県保健情報システムプロジェクト
終了時評価調査報告書

平成 25 年 2 月
（2013年）

独立行政法人国際協力機構
パキスタン事務所

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序　　文

パキスタン・イスラム共和国（以下、パキスタン）における全国規模の保健情報システムの導入に関して、独立行政法人国際協力機構（JICA）は2000年代以降、主導的な役割を果たしてまいりました。とりわけ、2004年から3年間にわたって実施した「保健管理情報システム整備計画調査（開発調査）」を通じ、保健管理情報システム再構築のための国家行動計画（NAP）を策定し、最新の保健情報に基づく保健行政の運営・計画・政策を県保健事務所（DHO）が実行するための「県保健情報システム（DHIS）」を開発したことは、大きな成果といえます。その後、パキスタン政府からの要請に基づき、NAPにのっとったDHISの全国展開、及び、根拠に基づく政策決定及び管理の実現に向け、2009年7月以来、本技術協力プロジェクトを実施してまいりました。

3年にわたる本プロジェクトの終了を間近に控え、今般、これまでの活動の達成度を確認し、DHISの今後の方向性について提言することを目的に、終了時評価調査を実施しました。本報告書は、調査結果を取りまとめたものです。

調査を通じて、2011年の保健省解体に伴い、プロジェクト実施体制の再構築に多大な労力が費やされたものの、州政府の努力により、プロジェクトの成果はおおむね達成できたことが確認されました。本プロジェクト終了後は、DHISが将来にわたってパキスタンで有意義に活用されるべく、①州政府がDHIS関連予算を確保すること、及び、②州間の調整役として連邦政府がDHISに積極的に関与していくこと、が望まれます。

本調査の実施にあたり、ご協力頂きましたパキスタン政府関係機関及びわが国の関係各位に深く謝意を表するとともに、引き続き一層のご支援を頂けますよう、お願い申し上げます。本技術協力プロジェクトによる経験と教訓が、広く関係者に共有され、今後の国際協力に活用されることを祈念いたします。

平成25年2月

独立行政法人国際協力機構
パキスタン事務所長　**西片　高俊**

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地　　図

Islamic Republic of Pakistan
Russia
Mongolia
China
Japan
Iran
Afganistan
Saudi Arabia
India
Philippine
TAJIKISTAN
CHINA
AFGHANISTAN
IRAN
INDIA
Arabian Sea
Gilgit
GILGIT BALTISTAN
KPK
ISLAMABAD CAPITAL TERRITORY
Peshawer
ISLAMABAD
AJK
FATA
Lahore
PUNJAB
Quetta
BALOCHISTAN
SINDH
Hyderabad
Karachi
LEGEND
: Study Area (Nationwide)
: International Boundary
: Internal Boundary
: Main River
: Capital
: Province Capital
0
500Km

略　語　表

略　語	正式名称	和　訳
AJK	Azad and Jammu Kashmir	アジャド・ジャム・カシミール
CDA	Capital Development Authority	首都圏開発庁
C/P	Counterpart	カウンターパート
DHIS	District Health Information System	県保健情報システム
DHO	District Health Office	県保健事務所
EAD	Economic Affairs Division	経済協力局
EPI	Expanded Programme on Immunization	拡大予防接種プログラム
FATA	Federally Administered Tribal Area	連邦直轄部族地域
G/B	Gilgit-Baltistan	ギルギット・バロチスタン（州）
GIZ	Gesellschaft für Internationale Zusammenarbeit	ドイツ国際協力公社
HMIS	Health Management Information System	保健管理情報システム
ICT	Islamabad Central Territory	イスラマバード中心区域
JCC	Joint Coordinating Committee	合同調整委員会
JICA	Japan International Cooperation Agency	国際協力機構
KP	Khyber Pakhtunkhwa	ハイバル・パフトゥンハー（州）
MDGs	Millennium Development Goals	ミレニアム開発目標
MNCH	Maternal, Newborn and Child Health	母子・新生児保健プログラム
NAP	National Action Plan	国家行動計画
NHIRC	National Health Information Resource Centre	国家保健情報資源センター
NIH	National Institute of Health	国立衛生研究所
NPPI	Norway, Pakistan Partnership Initiative	ノルウェー及びパキスタン連携イニシアティブ
OJT	On-the-Job Training	実地研修
PAIMAN	Pakistan Initiative for Mothers and Newborns	パキスタン母親及び新生児保健イニシアティブ
PDM	Project Design Matrix	プロジェクト・デザイン・マトリックス
PHD	Provincial Health Department	州保健局
PMC	Project Management Committee	プロジェクト運営委員会
PO	Plan of Operations	活動計画
PPHI	People’s Primary Healthcare Initiative	プライマリー・ヘルスケア・イニシアティブ
PRSP	Poverty Reduction Strategy Paper	貧困削減戦略文書

R/D	Record of Discussions	討議議事録
S/C	National Health Information System Steering Committee	国家保健情報システム運営委員会
TAG	Technical Advisory Group	技術諮問グループ
TWG	Technical Working Group	技術ワーキンググループ
UNFPA	United Nations Population Fund	国連人口基金
USAID	United States Agency for International Development	米国国際開発庁
WHO	World Health Organization	世界保健機関

評価調査結果要約表

１．　案件の概要		
国名：パキスタン・イスラム共和国（以下、パキスタン国）		案件名：根拠に基づく意思決定及び管理のための県保健情報システムプロジェクト
分野：保健		援助形態：技術協力プロジェクト
所轄部署：パキスタン事務所		協力金額（評価時点）：約 3.2 億円
協力期間	R/D 締結: 2009 年 4 月 25 日 プロジェクト実施期間：2009 年 7 月 15 日～2012 年 7 月 14 日	先方関係機関： 国家保健情報資源センター（NHIRC）（2011 年 6 月まで） 国立衛生研究所（NIH）（2011 年 7 月以降）
		日本側協力機関：システム科学コンサルタンツ株式会社

１-１　協力の背景と概要

パキスタン国では、1992 年に USAID の支援により、保健管理情報システム（HMIS）が開発されたが、2001 年以降、地方分権化の進展により、同システムは、州及び県レベルに軸足を置くものとすべく見直しの必要に迫られた。このため、パキスタン国政府の要請により、JICA は開発調査「保健管理情報システム整備計画調査」（2004 年～2007 年）を実施し、最新の保健情報に基づく保健行政の運営・計画・政策を県保健事務所（DHO）が実行するための県保健情報システム（DHIS）を開発した。

開発調査の終了後、パキスタン国保健省の担当部局である国家保健情報資源センター（NHIRC）は NAP に基づき、DHIS 全国展開にかかる推進計画を策定した。しかし、一次・二次保健施設における HMIS と DHIS の混在状況が長期化したため、DHIS が適切に利用されない状態が長く続いてきた。

かかる状況を憂慮し、パキスタン国政府は、NHIRC の DHIS 監理能力強化を通じ、国家行動計画（NAP）に則った DHIS の全国展開と根拠に基づく政策決定及び管理を目指す技術協力プロジェクトを我が国政府に要請した。

１－２　協力内容

DHIS ソフトウェアをパキスタン国内の各州・県にインストールし、DHIS に関する各種訓練（データ収集、データ入力、データ利用等）及び訓練後のモニタリングを通じて、州保健局（PHD）及び DHO をはじめとするパキスタン国政府の関係者が、DHIS を適切に運用・維持管理できるようになることを目指す。

（１）上位目標

パキスタン国において DHIS を通じて根拠に基づく国家保健政策／戦略が策定される。

（２）プロジェクト目標

プロジェクト対象県において、DHIS を通じて根拠に基づいた定型業務及び予算計画立案が実践される。

（３）成果

成果１： DHIS 展開計画が策定され、合同調整委員会（JCC）会議にて承認される。
成果２： PHD 及び DHO の関係職員が DHIS 推進のための研修の受講を完了する。
成果３：公的な一次・二次医療施設から DHO へ DHIS のデータが完全、正確かつ適時に収集される。
成果４：PHD 及び DHO が収集データを DHIS ソフトウェアに入力、集計、分析される。
成果５：PHD 及び DHO において DHIS の分析結果を利用した根拠に基づく資源（※人的資源及び物的資源）分配計画及び予算計画のための項目が特定され、活用される。
成果６：政府関係機関及び開発パートナーとの間で DHIS 推進にかかる調整が適切に行われる。

（４）投入

日本側：
　専門家派遣　5 名（業務調整除く）、現地活動費
パキスタン国側：
　カウンターパート配置、専門家用執務スペース（イスラマバード）提供、事業運営費

２．　評価調査団の概要		
調査者	１．佐藤俊也（団長）JICA パキスタン事務所次長 ２．西村邦雄（評価分析）株式会社アイコンズ ３．名木田朋幸（協力企画）JICA パキスタン事務所	
調査期間	2012 年 6 月 4 日～2012 年 6 月 15 日	評価種類：終了時評価

３.評価結果の概要

３-１　実績の確認

（１）プロジェクト目標：概ね達成された。

対象100県のうち87県のDHOにおいて、3か月以上にわたって収集されたDHISデータの分析に基づき、定型業務における資源配分計画及び予算計画の作成がなされている。

（２）成果

成果１：達成された。

DHIS展開のための戦略計画に関して、ベースライン調査、関係者へのインタビュー調査などによる基礎情報の収集を行い、第1回JCC会議（2010年6月）にて承認された。

成果２：達成された。

全 PHD（全 5 州、アジャド・ジャム・カシミール（AJK）及び連邦直轄部族地域（FATA））及び対象 100 県の DHO において、データ入力の基盤となる最新版 DHIS ソフトウェアがインストールされた。医療施設情報収集にかかる研修がカスケード方式によって実施され、県マスタートレーナー173 人及び一次・二次医療施設スタッフ 9,586 人が育成された。また、PHD 及び DHO におけるデータ入力・分析及び利用のために、州マスタートレーナー81 名、県マスタートレーナー129 名が研修の受講を完了した。これにより、マスタートレーナーを通じた指導体制が各州内に構築された。

成果３：部分的に達成された。

保健医療情報収集のための月例報告書様式の統一は、各州からは100%完了との報告を受けているが、一部プロジェクトモニタリングにて報告書様式の一次・二次医療施設への配布が十分に行われていない地域が確認されたことなどから、完全ではないものの概ね達成されていると判断される。

公的一次・二次医療施設からDHOへのDHIS報告書が完全・正確・適時に提出された率が、プロジェクト終了前の6ヵ月間連続して90%以上となった県は、100対象県中、39県（39%）であった。低率の原因は、報告用紙の不足、関係者との調整不足、データ入力作業の遅れなどが挙げられる。

成果４：達成された。

データ入力・集計・分析の研修を実施した結果、全 PHD 及び 100 対象県の DHO において、少なくとも 1 名以上の担当者が収集した DHIS データを DHIS ソフトウェアに入力・集計し、分析のために図表を作成できるようになった。

成果５：概ね達成された。

全 PHD 及び 100 対象県のうち 99 県の DHO の職員が、データ利用にかかる研修の受講を完了した。その後、87 県の DHO において、収集した DHIS データの分析結果が、資源配分計画及び予算計画作成に活用されていることを確認した。

成果６：達成された。

連邦レベル（国家保健情報システム運営委員会（S/C）会議1回、JCC会議 4回、技術諮問グループ（TAG）会議 2回）、州レベル（プロジェクト運営員会（PMC）会議3回、技術ワーキンググループ（TWG）会議12回）、ドナー間（開発パートナー会議2回）で会議を開催し、DHIS展開に係る協議／調整を行った。

３-２　評価結果の要約

（１）妥当性：概ね高い

本プロジェクトの目標・上位目標は保健省が作成した『国家保健政策 2009』（最終ドラフト版）及び我が国の対パキスタン国別援助方針に合致するものであるため、開発政策との整合性は高い。2011 年 6 月の保健省の解体に伴い、保健行政の責任が州レベルに移行したことにより、DHIS 展開は各州で継続するものと考えられる。

また、開発調査「保健管理情報システム整備計画」の支援実績により、日本にとってパキスタン国において優位性が認められる情報システム分野への取り組みを、保健分野を取り巻く他ドナーや NGO との情報交換を保ちつつ継続したことも、本プロジェクトの妥当性の高さの根拠として挙げられる。

（２）有効性：概ね高い

プロジェクト目標の達成に向けた道筋に 6 つの成果を適切に配置したことで、各成果の達成状況がプロジェクト目標の達成度に結びついたことから、有効性が確保できたと判断される。
具体的には、プロジェクトとしての方向性を一致させる基盤となる成果１のもと、必要ソフトウェアのインストール（成果２）、PHD 及び DHO への関係職員・トレーナーへの研修によるデータ入力・集計・分析（成果 3、4）及び分析データの活用（成果 5）を論理的に展開し、プロジェクト目標の達成へと貢献した。また、その過程においては、政府関係機関及び開発パートナーとの間で DHIS 推進にかかる調整を行い（成果 6）、目標達成を円滑に進めることとなった。
その結果、プロジェクト目標は、2010 年 7 月の大洪水による活動一時停止、保健省解体、邦人の活動地域の制限等の制約はあったが、概ね達成された。

（３）効率性：普通
日本側の投入のタイミングや質、量は概ね適切であった。他方、パキスタン国側の投入に関しては、事業運営費を十分に計上していない州があったことで、プロジェクト実施期間中に対象県数を削減することになる等、投入のタイミング及び量が不適切な部分があった。

（４）インパクト：普通
プロジェクト終期（2011 年 6 月末）に行われた連邦保健省の解体により、全国レベルで DHIS 展開を実施する機関がなくなったため、上位目標で掲げられているパキスタン国政府の国家保健政策策定に DHIS が直接的に用いられることは困難である。一方で、本プロジェクトを通じて、DHIS データはプロジェクト対象の州や県の予算作成や意思決定等に使用されるようになったことで、対象県以外の地域での DHIS ソフトウェア導入が進めば、今後、DHIS データ利用の動きが多くの県に広まることが期待される。負のインパクトは現時点では想定されない。

（５）持続性：連邦レベル：低い、州レベル：普通
連邦レベルの機関が長期的に DHIS に関与していくことが望まれるものの、保健省の解体後、保健行政を一元的に担う連邦レベルの機関が存在しないため、連邦レベルでの持続性は現時点では低い。しかし、州レベルでは各 PHD が保健戦略を作成し、州の予算に応じて DHIS 展開を引き続き行う意欲を示しており、一定の持続性は期待できる。

３-３　効果発現に貢献した要因
（１）計画内容に関すること
・プロジェクト目標達成に向けて、研修の計画及び実施を論理的に行うことで、プロジェクトの有効性を確保した。（データ収集⇒データ分析⇒データ利用）

（２）実施プロセスに関すること
・実務者グループ会議における PHD 同士の情報交換を通じて、積極的な DHIS 活用に向けた州間の前向きな競争意識を醸成し、持続性の向上に寄与した。
・カスケード方式で各種研修を実施し、研修を受講した州レベルの職員が講師となり、県レベルの職員に研修を実施するようにしたことで、効率的かつ効果的に職員が育成された。

３-４　問題点及び問題を惹起した要因
（１）計画内容に関すること
・プロジェクトの実施に必要な予算措置が一部の県で不十分であったため、プロジェクト実施期間中に、プロジェクト対象県を削減することとなった。

（２）実施プロセスに関すること
・NHIRC がプロジェクト活動に非協力的であったため、プロジェクト活動が遅延し、目標達成に影響した。
・保健省解体後、NIH が連邦のカウンターパート機関と正式に確定するまで時間を要した。その間、連邦政府がプロジェクト活動に深く関与することがなかったため、州政府との協力関係維持に努めたことで、持続性をある程度確保することにつながった。
・パキスタン国内の安全事情により一部州及び県（FATA 及び AJK を含む）では邦人専門家の活動が制限された。当該州・県に訪問できない場合は、近隣の州・県に関係者を集め、プロジェクトの効率

的な実施に及ぼす悪影響を最小限に留めるよう努めた。

３-５　結論

PHD 及び DHO など保健業務関係者の努力、及び、日本人専門家が活動の時期や内容を臨機応変に状況判断して本プロジェクトを実施したことにより、プロジェクト目標は概ね達成された。しかし、対象 100 県の全てで、DHIS データの分析に基づき、保健サービスの少なくとも 1 項目に関して定型業務（資源配分計画）及び予算計画が作成されるにはプロジェクト終了後、ある程度の時間を要することが想定される。

パキスタン国政府の地方分権化に伴って保健省が解体されたため、国家レベルで保健政策が作成されるかは不明であるが、各州では DHIS データが必要とされているため、州が主体となって DHIS に必要な予算を確保することができれば、州レベルでの DHIS の今後の展開に対して一定の期待の余地はあると思料する。

３-６　提言

（１）DHIS の持続的な活用

３－２（３）に記載のとおり、各州の DHIS に関する予算措置（DHIS ソフトウェア維持管理費用等）が不十分の場合、全国規模での DHIS の活用に支障をきたすことは必至である。プロジェクト完了後も DHIS が長期的に活用されるよう、各州は、DHIS の運用に必要な予算措置を積極的に行うことが求められる。

（２）プロジェクト対象県以外での DHIS 展開

３－２（４）に記載のとおり、全ての県で DHIS ソフトウェアの導入が進めば、全国規模での DHIS データの利用が可能になる。そのために、本プロジェクト期間中に DHIS ソフトウェアがインストールされなかった県に対し、今後はパキスタン国、特に PHD の自助努力で各 DHO のハードウェアを整備し、DHIS ソフトウェアを可能な限り早期にインストールすることが望まれる。

（３）連邦レベルの DHIS への積極的関与

３－２（５）に記載のとおり、保健省解体後、連邦における DHIS 運営機関が明確に定められていないため、持続的な DHIS 利用に負の影響が及ぶことが懸念される。DHIS を国家の統一保健システムとして長期的に利用していくために、連邦レベルの機関が DHIS に対して積極的に関与していくことが強く望まれる。

３-７　教訓

（１）プロジェクト開始の条件の明確化

本プロジェクトでは、３－４（１）に記載のとおり、プロジェクトの実施に必要な予算措置が一部の県で不十分であったため、プロジェクト対象地域を狭めることとなってしまった。不必要なプロジェクトのスコープ変更や遅延を生じさせることのないよう、プロジェクト開始のための前提条件を明確にし、それらを開始までにクリアしておく必要があることを、留意する必要がある。

（２）問題があるカウンターパート機関への適切な対応

本プロジェクトでは、３－４（２）に記載のとおり、NHIRC がプロジェクト活動に非協力的であったきことで、プロジェクト活動が遅延することにつながった。カウンターパート機関に問題がある場合、早期にカウンターパート機関の上位機関及び政府援助窓口（パキスタンでは保健省及び経済局（EAD））を巻き込みつつ、問題の解決を図る必要がある。

３-８　フォローアップ状況

パキスタン側の要請を受け、最新（Ver.1.03）の DHIS ソフトウェアの維持管理業務を、一定期間（長くとも 2013 年 3 月末まで）日本側の費用負担で実施する予定である。

Summary of Terminal Evaluation Study of the Project

<table>
<tr><td colspan="3">I. Outline of the Project</td></tr>
<tr><td colspan="2">Country：Islamic Republic of Pakistan</td><td>Project Title：
District Health Information System Project for Evidence-Based Decision Making and Management</td></tr>
<tr><td colspan="2">Issue/Sector：Health</td><td>Cooperation Scheme:
Technical Cooperation Project</td></tr>
<tr><td colspan="2">Division in charge：Pakistan Office</td><td>Total Project Cost: Approx. 320 million JPY</td></tr>
<tr><td rowspan="2">Period of Cooperation</td><td rowspan="2">(R/D): April 25, 2009
*Project period: July 15, 2009 – July 14, 2012</td><td>Partner Country's Implementing Organization:
National Health Information Resource Center (NHIRC) (up to June 2011)
National Institute of Health (NIH) (after July 2011)</td></tr>
<tr><td>Supporting Organization in Japan：
System Science Consultants Inc.</td></tr>
</table>

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		
Members of Evaluation Team	Team Leader: Mr. Toshiya Sato, Senior Representative, JICA Pakistan Office Evaluation and Analysis: Mr. Kunio Nishimura, ICONS Inc. Cooperation Planning; Mr. Tomoyuki Nagita, JICA Pakistan Office	
Period of Evaluation	June 4, 2012~ June 15, 2012	Type of Evaluation: Terminal Evaluation

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 (outpu5) 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.

第１章　終了時評価調査団の派遣

１－１　調査団派遣の経緯と目的

１－１－１　経　緯

パキスタン・イスラム共和国（以下、パキスタン）では、1992年に米国国際開発庁（USAID）の支援により、保健管理情報システム（HMIS）が開発されたが、2001年以降、地方分権化の進展により、同システムは、州及び県レベルに軸足を置くものとすべく、見直しの必要に迫られた。このためパキスタン政府は、地方分権化に即したHMISを導入するための「保健管理情報システム整備計画調査（開発調査）」をわが国に要請した。2004年1月から2007年1月にかけてJICAが実施した同調査では、①保健情報の集約・分析・活用のためのソフトウェア開発、②HMIS再構築のための国家行動計画（NAP）策定、③パイロット4県（各州より1県）における試行、が行われた。その結果、最新の保健情報に基づく保健行政の運営・計画・政策を県保健事務所（DHO）が実行するための県保健情報システム（DHIS）が開発された。

開発調査の終了後、パキスタン保健省の担当部局である国家保健情報資源センター（NHIRC）は、NAPに基づき、DHISに係る①ソフトウェアのインストール、②データ収集・分析・利用のトレーニング、③研修マニュアル印刷及び配布といった全国展開に係る推進計画を策定した。しかし、一次・二次保健施設におけるHMISとDHISの混在状況が長期化したため、パキスタン政府が政策決定する際に必要不可欠な保健情報が適切に収集・分析・利用されない状態が長く続いてきた。

かかる背景の下、パキスタン政府は、NHIRCのDHIS監理能力強化を通じ、NAPにのっとったDHISの全国展開と根拠に基づく政策決定及び管理をめざす技術協力プロジェクトをわが国政府に要請した。JICAは、2008年7月にプロジェクト形成調査、2009年1月に事前評価調査を実施し、パキスタン側のプロジェクト実施体制を確認するとともにプロジェクト協力内容に係る関係者の合意形成を行ったうえで、2009年4月に討議議事録（R/D）の署名・交換を行い、本プロジェクトを開始することでパキスタン政府と合意した。

本プロジェクトは、NHIRCをカウンターパート（C/P）機関として、2009年7月より2012年7月までの3年間の予定で実施された（パキスタンの憲法改正により、2011年7月よりC/P機関は内閣府に変更となった）。日本からは、短・中期間の派遣を繰り返すシャトル型で、5名の専門家（総括、副総括、データ収集、データ分析、データ利用）が派遣された。

１－１－２　調査の目的

（1）これまで実施した協力活動について、改訂最新プロジェクト・デザイン・マトリックス（PDM）に照らし、計画達成度（投入実績、活動実績、プロジェクト成果の達成状況）を把握する。

（2）上記（1）を踏まえたうえで、「新JICA事業評価ガイドライン第1版」に沿って評価5項目の観点からプロジェクトの評価を行う。

（3）今後のDHISの発展に必要な戦略、未達成部分のレビューを行う。

（4）調査の結果を第2回技術諮問グループ（TAG）会議において承認する。

１－２　対象プロジェクトの概要

案 件 名	根拠に基づく意思決定及び管理のための県保健情報システムプロジェクト
英文案件名	District Health Information System Project for Evidence-Based Decision Making and Management
協力期間	2009年7月15日～2012年7月14日
協力概算額	約3億2,000万円

案件開始時（R/D署名時）PDM（Ver. 1）

上位目標	パキスタンにおいてDHISを通じて根拠に基づく国家保健政策/戦略が策定される。
プロジェクト目標	パキスタンにおいて、DHISを通じて根拠に基づいた定型業務及び予算計画立案が実践される。
成　果	（1）DHIS国家展開計画が策定され、S/C会議にて承認される。 （2）保健省及びNHIRCの関係職員がDHIS推進のための研修の受講を完了する。 （3）公的な一次・二次医療施設からDHOへDHISのデータが完全、正確かつ適時に収集される。 （4）DHOにおいて収集データがDHISソフトウェアに入力、集計、分析され、更にPHD及び保健省/NHIRCにおいて集計、分析される。 （5）PHD及びDHOにおいてDHISの分析結果を利用した根拠に基づく資源分配計画及び予算計画のための項目が特定され、活用される。 （6）政府関係機関及び開発パートナーとの間でDHIS推進に係る調整が適切に行われる。

S/C：国家保健情報システム運営委員会、PHD：州保健局

最新PDM（Ver. 4）（2012年1月開催の第1回TAG会議にて承認済み）

上位目標	パキスタンにおいてDHISを通じて根拠に基づく国家保健政策/戦略が策定される。
プロジェクト目標	プロジェクト対象県において、DHISを通じて根拠に基づいた定型業務及び予算計画立案が実践される。
成　果	（1）DHIS展開計画が策定され、JCC会議にて承認される。 （2）PHD及びDHOの関係職員がDHIS推進のための研修の受講を完了する。 （3）公的な一次・二次医療施設からDHOへDHISのデータが完全、正確かつ適時に収集される。 （4）PHD及びDHOにおいて収集データがDHISソフトウェアに入力、集計、分析される。 （5）PHD及びDHOにおいてDHISの分析結果を利用した根拠に基づく資源分配計画及び予算計画のための項目が特定され、活用される。 （6）政府関係機関及び開発パートナーとの間でDHIS推進に係る調整が適切に行われる。

JCC：合同調整委員会

※下線箇所は、案件開始時PDMからの変更箇所を示す。

１－３　調査団の構成

担　当	氏　名	所　属
団　　長	佐藤　俊也	JICAパキスタン事務所次長
評価分析	西村　邦雄	株式会社アイコンズ
協力企画	名木田　朋幸	JICAパキスタン事務所

１－４　調査日程

現地調査期間：2012年6月4日（月）～6月15日（金）

月　日	曜	活　動
6月4日	月	移動（日本⇒パキスタン）
6月5日	火	団内協議、国立衛生研究所（NIH）との協議
6月6日	水	ハイバル・パフトゥンハー（KP）州Haripur県視察
6月7日	木	パンジャブ州政府視察 パンジャブ州Sheikhupura県視察
6月8日	金	パンジャブ州Kasur県視察
6月9日	土	終了時評価報告書（英文）作成
6月10日	日	終了時評価報告書（英文）作成 PHDsへのインタビュー
6月11日	月	終了時評価報告書（英文）作成 ドイツ国際協力公社（GIZ）へのインタビュー
6月12日	火	終了時評価報告書（英文）作成 Save the Childrenへのインタビュー
6月13日	水	終了時評価報告書（英文）団内最終協議 PHDsへのインタビュー
6月14日	木	6月度技術ワーキンググループ（TWG）会議
6月15日	金	第2回TAG会議

１－５　評価調査の方法

１－５－１　評価枠組み

PDM（Ver.4）と活動計画（PO）に基づき、以下について評価を行った。

（1）PDMの指標に基づくプロジェクトの実績

（2）実施プロセス

（3）評価5項目による分析

評価5項目の定義は以下のとおりである。

項目名	概　要
妥当性	評価時点においても、プロジェクト目標、上位目標が妥当であるかどうかを、パキスタン政府の政策、裨益者のニーズ、日本の援助政策との整合性、プロジェクト・デザインの観点から検討する。
有効性	プロジェクト目標の達成の度合い、及び成果がプロジェクト目標の達成度にどの程度結びついているかを検討する。
効率性	プロジェクトの投入から生み出される成果の程度は、投入のタイミング、質、量の観点から妥当であったかどうかを分析する。
インパクト	プロジェクトが実施されたことにより生じる波及効果の正・負の効果を、当初予期しなかった効果も含め検討する。
持続性	協力終了後、プロジェクトによってもたらされた成果や効果が持続されるか、あるいは拡大されていく可能性があるかどうかを予想するために、制度的（政策的）側面、財政的側面、技術的側面からプロジェクトの持続性の見込みを考察する。

１－５－２　データ・情報の収集方法

本調査の主なデータ・情報の収集方法は、プロジェクト関係書類の分析（文献調査）、現地視察、プロジェクト関係者へのインタビューである。

調査結果については、2012年6月15日（金）に開催された第2回TAG会議において報告のうえ、議事録として取りまとめて署名・交換を行った（詳細は付属資料を参照のこと）。

第２章　実績と実施プロセス

２－１　投　入

２－１－１　日本側

日本人専門家	日本人専門家（業務調整除く）を5名派遣。 詳細は、付属資料の議事録Annex 3-2参照。
現地活動費	付属資料の議事録Annex 3-3上部参照。

２－１－２　パキスタン側

カウンターパート	付属資料の議事録Annex 3-1参照。
執務スペース	日本人専門家の執務用に、NIH内の一室を貸与。
事業運営費	付属資料の議事録Annex 3-3下部参照。

２－２　活動実績

PDMの指標の達成度は以下のとおりである。

２－２－１　成　果

成果1.　DHIS展開計画が策定され、JCC会議にて承認される。

⇒以下のとおり、本プロジェクトの成果1は「達成」された。

指標1.　DHIS展開計画が策定され、JCC会議にて承認される。

日本人専門家は2009年8月に派遣されたが、パキスタン側の手続き上、S/CでJCC設置の承認を得る必要があった。しかし、S/C及びJCCの開催がパキスタン側関係者の出張等のために遅れ、結局、DHIS展開のための戦略計画の承認は、第1回JCC会議（2010年6月1日）まで持ち越された。

第1回JCC会議までの期間中、日本人専門家は、ベースライン調査やPHDでのインタビュー調査を通じて、DHIS展開に係る基礎情報を収集した。

DHIS展開のための戦略計画の承認後、PDM（Ver.1）は、本プロジェクト期間中に以下のとおり3回変更された。

① PDM（Ver.2）：第2回JCC会議（2010年7月7日）にて承認
② PDM（Ver.3）：第3回JCC会議（2011年2月8日）にて承認
③ PDM（Ver.4）：第1回TAG会議（2012年1月24日）にて承認

成果2.　PHD及びDHOの関係職員がDHIS推進のための研修を完了する。

⇒以下のとおり、本プロジェクトの成果2は「達成」された。

指標2-1.　PHD及びDHOにおいて、改修されたDHISソフトウェアがインストールされる（100%）。

2011年〔2月（57県）、7月（37県）及び10月（6県）〕に実施したワークショップにおいて、対象県100県（表２－１）のDHO、並びに各PHDに最新版DHISソフトウェアがインストールされた。

表２－１　本プロジェクトの対象県

州　名	対象県名	対象県数
パンジャブ	Attock, Bahawalnagar, Bahawalpur, Bhakkar, Chakwal, Chiniot, Dera Ghazi Khan, Faisalabad, Gujranwala, Gujrat, Hafizabad, Jhang, Jhelum, Kasur, Khanewal, Khushab, Lahore, Layyah, Lodhran, Mandi Bahauddin, Mianwali, Multan, Muzaffargarh, Narowal, Nankana Sahib, Okara, Pakpattan, Rahim Yar Khan, Rajanpur, Rawalpindi, Sahiwal, Sargodha, Sheikhupura, Sialkot, Toba Tek Singh, Vehari	36
シンド	Dadu, Hyderabad, Khairpur, Mattiari, Mirpurkhas, N.S. Feroze, Sanghar, Sukkur, T. Allahyar, T.M. Khan, Thatta	11
KP	Abbotabad, Bannu, Batagram, Buner, Charsadda, Chitral, Dera Ismail Khan, Dir Lower, Manshera, Nowshera, Hangu, Haripur, Karak, Kohat, Kohistan, Lakki Marwat, Malakand, Mardan, Peshawar, Shangla, Swabi, Swat, Tank, Upper Dir	24
バロチスタン	Gwadar, Jaffarabad, Kech, Killa Abdullah, Killa Saifullah, Lesbela, Mastung, Noshki, Panjgur, Pishin, Quetta, Sibi, Zhob, Ziarat	14
AJK	Bhimber, Hattian, Kotli, Muzaffarabad, Sudhnoti	5
FATA	Bajaur, Khyber, Kurram, Mohmand, North Waziristan, Orakzai, South Waziristan, FR D. I. Khan & FR Tank, FR Lakki & FR Bannu, FR Peshawar & FR Kohat	10

AJK：アジャド・ジャム・カシミール、FATA：連邦直轄部族地域
※本プロジェクトの対象100県は、2012年1月開催の第1回TAG会議にて決定された。

指標2-2.　DHOのトレーナーが「データ収集及びDHIS推進のための監理・指導に関する研修」、「データ入力・集計・分析に関する研修」、及び「データ利用に関する研修」の受講を完了する（100%）。

カスケード方式により、PHDによって県マスタートレーナー173名、及び医療施設スタッフ9,586名に対し、「データ収集及びDHIS推進のための監理・指導に関する研修」が実施された。また、本プロジェクトによって、PHD及び対象県100県のDHOにおいて「データ入力・集計・分析に関する研修」、並びに「データ利用に関する研修」が実施された。

なお、2011年6月末の保健省解体後も、州・県においては当初のプロジェクトの合意に基づきプロジェクト活動は実施された（表２－２）。

表２－２　プロジェクトで実施したDHIS研修一覧

研修コース	開催期間	対象（受講者数）	備　考
データ収集及びDHIS推進のためのモニタリング・指導に関する研修	2010年7月	パンジャブを除く各州マスタートレーナー（28名）	パンジャブ州職員は講師として参加。
	2010年8月	KP州12県（48名）、バロチスタン州13県（39名）の県マスタートレーナー	他の対象県は各PHDにより実施。

データ入力・集計・分析に関する研修	2011年2月 2011年7月 2011年10月 2012年3月	PHD及びDHOのマスタートレーナー及び統計担当職員（州レベル21名、県レベル237名）	PDM変更により全対象県に対して実施。2012年3月はCDAを対象に研修を実施。
	2011年11月以降	PHDコーディネーター（G/B州及びICTを除く7名）	ソフトウェアの維持管理で確認された問題への対応に関するOJTを実施。
	2011年12月～2012年1月	対象県DHOの職員（251名）	各県で収集したデータを用いた研修を再委託により実施。
データ利用に関する研修	2010年8月	パンジャブ州PHD及びDHO職員（9名）	教材等の見直しを兼ねる。
	2011年8月	PHDマスタートレーナー（36名）	
	2011年11月 2012年4月	対象県DHOの意思決定者（101名）	各県で入力したデータを用いて研修を実施。

CDA：首都圏開発庁、G/B：ギルギット・バロチスタン、ICT：イスラマバード中心区域、OJT：実地研修

指標2-3.　PHDのトレーナーが「データ収集及びDHIS推進のための監理・指導に関する研修」、「データ入力･集計･分析に関する研修」､「データ利用に関する研修」の受講を完了する（100%）。

2011年3月時点までに各州へのマスタートレーナー延べ81名（内訳：DHIS推進のための監理・指導に関する研修24名、データ入力・集計・分析研修21名、データ利用研修36名）、県マスタートレーナー129名が受講し、DHIS操作のための研修が完了した。

上記81名の研修前・後のテスト結果（10点満点）に関し、受講者全体として成績（＝スキル/能力）は向上している（表２－３）。

表２－３　研修前・後のテスト結果

研修前テストの平均点	4.8
研修後テストの平均点	7.7
研修前・後テストの違い	＋2.9

成果3.　公的な一次・二次医療施設からDHOsへDHISのデータが完全、正確かつ適時に収集される。

⇒以下のとおり、本プロジェクトの成果3は「部分的に達成」された。

指標3-1.　公的な一次・二次医療施設において月例報告様式がDHISに統一される。

2012年1月時点で、PHDからは月例報告書様式が（HMIS様式から）DHISに100%交換済みと報告された。しかし、本プロジェクトスタッフが検証できない県が実際にあること、また、本プロジェクトによるモニタリング調査結果により一部の県ではまだ完全には達成されていないと判断される。

例えば、シンド州において母子・新生児保健プログラム（MNCH）の支援7県では2011年7月時点で既にMNCHからDHIS報告用紙が配布されているとPHDから報告を受けていたが、実際には一部用紙の不足があり、全セットが揃ったのは2011年12月であることが判明した。更にシンド州の他県でもDHIS報告用紙の不足が2011年12月まで続き、DHIS活動に支障が生じていた。また、KP州でも2012年1月の本プロジェクトのモニタリングの結果、依然としてHMIS報告用紙を用いている保健施設が確認されている。

指標3-2.　公的な一次・二次医療施設からのDHIS報告書提出率が6カ月間連続して90％以上となる。

2011年11月から2012年4月までの6カ月間に保健施設から90％以上の報告書提出率（期日どおりに提出）を示した県は100県中39県であった（39％の提出率）。しかし、期日どおりに提出できず遅れて提出した県も含めると45県となる（表２－４）。

また、「4カ月間」と短くし、「期日まで」と限定すると54県（54％）、「遅れて提出した保健施設を含める」と57県（57％）となる。

このような提出率の低い原因としては、①DHIS報告用紙の不足、②プライマリー・ヘルスケア・イニシアティブ（PPHI）との協調不足、③頻繁な停電、④ポリオデー（ポリオワクチンの一斉投与を行うイベント）等の行事によるデータ入力作業の遅れなどが挙げられる。

表２－４　過去6カ月間/4カ月間に保健施設から90％以上の報告書提出率の県

州　名	期日までに提出した県（遅延した施設を含まない）		遅延提出した施設も含めた提出県	
	過去6カ月	過去4カ月	過去6カ月	過去4カ月
パンジャブ	33	34	33	34
シンド	0	2	1	3
KP	4	10	5	10
バロチスタン	1	2	3	3
AJK	0	4	1	4
FATA	1	2	2	3
計（県数）	39	54	45	57

さらに、2011年11月から2012年4月までの6カ月間に主要保健施設から90％以上の報告書提出率を示した県は100県中48県であった（48％の提出率）。また、「4カ月間」と期間を短くすると63県（63％）となる（表２－５）。

表２－５　過去6カ月間/4カ月間に主要保健施設から90%以上の報告書提出率の県

州　名	過去6カ月	過去4カ月
パンジャブ	33	34
シンド	1	4
KP	6	11
バロチスタン	2	5
AJK	2	4
FATA	4	5
計（県数）	48	63

また、主要保健施設から90％以上の報告書提出率の県に関して、2011年11月では65県（65％）になっている。表２－６に示すように2011年11月から2012年4月にかけての提出県数は増加傾向にある。

表２－６　主要保健施設から90%以上の報告書提出率の県（2011年11月～2012年4月）

州　名	対象県数	2011年		2012年			
		11月	12月	1月	2月	3月	4月
パンジャブ	36	35	33	34	34	35	35
シンド	11	3	4	6	5	8	7
KP	24	11	15	19	18	16	14
バロチスタン	14	6	7	8	6	4	5
AJK	5	3	3	5	4	4	5
FATA	10	7	8	9	9	9	9
計（県数）	100	65	70	81	76	76	75

成果4.　PHDs及びDHOsが収集データをDHISソフトウェアに入力、集計、分析する。

⇒以下のとおり、本プロジェクトの成果4は「達成」された。

指標4-1.　PHDs及びDHOsでDHISの3種以上の項目に関する図表が作成され、利用可能になる。

PHD職員21名に対し、データ入力・集計・分析研修を実施し、当該研修で図表類の作成方法を習得した。

また、DHO職員237名に対しデータ入力・集計・分析研修を実施し、当該研修で図表類の作成方法を習得した。さらに、DHO職員95名に対しデータ利用研修を実施しており（2011年11月、12月）、各県のデータを用いた研修では5種類以上の表やチャート類を作成し分析できるようになった。

さらに、DHIS月例報告用紙の配布不足によりDHIS活動の開始が遅れたシンド州8県（Hyderabad県を含む）に関し、本プロジェクトがモニタリング調査した結果、8県のDHO職員が表やチャート類を実際に作成できることを確認している。

成果5.　PHDs及びDHOsにおいてDHISの分析結果を利用した根拠に基づく資源分配計画及び予算計画のための項目が特定され、活用される。

⇒以下のとおり、本プロジェクトの成果5は「おおむね達成」された。

指標5-1.　PHD及びDHOsにおいて、根拠に基づく資源分配計画のために必要な項目リストが利用可能な状態となる。

指標5-2.　PHD及びDHOsにおいて、根拠に基づく予算計画策定のために必要な項目リストが利用可能な状態となる。

本プロジェクトの対象県は100県であるが、実際にDHISデータ利用研修に参加できたのは91県である。残り9県のうち、5県はパンジャブ州にあり、それらの県は既にDHIS研修が終了しており、他4県は安全上や気候の理由から研修受講者を出せなかった（同4県のうち、KP州の3県に対してはPHDが研修を実施したが、FATAの1県には実施されていない）。

2011年11月、12月に実施されたデータ利用研修でDHOは各自が収集したDHISデータを用いて根拠に基づく資源分配計画、及び予算計画のために必要な項目リストを策定した。研修に参加した91県のうち、89県が研修を完了した。やむを得ない事情で途中離脱した2県に対しては、2012年4月に追加で研修を実施した。

本プロジェクトが2012年に実施した質問票調査結果により、2011年12月以前にDHISデータを3カ月以上収集していた87県すべてで、DHISデータを分析して資源配分計画、予算計画策定、及び政策策定に利用していることを確認した（表２－７及び表２－８）。

表２－７　質問票調査に回答した県

州　名	年次予算の策定
パンジャブ	36
シンド	3
KP	24
バロチスタン	12
AJK	5
FATA	7
計	87

表２－８　DHIS情報の使用目的

州　名	年次予算の策定	保健政策/戦略の策定	資源配分
パンジャブ	20	21	23
シンド	3	3	2
KP	9	12	20
バロチスタン	11	11	11
AJK	1	2	4
FATA	6	1	7
計（県数）	50	50	67

成果6.　政府関係機関及び開発パートナーとの間でDHIS推進に係る調整が適切に行われる。

⇒以下のとおり、本プロジェクトの成果6は「達成」された。

指標6-1.　政府関係機関もしくは開発パートナーとの会議が開催される。

本プロジェクト開始以降2012年6月まで、以下の会議を開催し、DHIS展開に係る協議/調整を行った（表２－９）。

表２－９　DHIS推進に係る会議開催状況

会議名	開催回数	開催日時
S/C会議	1回	2009年11月4日
JCC会議	4回	2010年6月1日、2010年7月7日 2011年2月8日、2011年3月19日
TAG 会議	2回	2012年1月24日、2012年6月15日
PMC	3回	2010年2月10日、2011年2月8日 2011年3月19日
TWG	12回	2010年2月3日、2010年6月24日 2011年7月21日、2011年8月2日 2011年11月3日、2011年12月22日 2012年1月23日、2012年2月23日&24日 2012年3月20日、2012年4月24日 2012年5月28日、2012年6月14日
開発パートナー会議	2回	2010年12月6日、2011年7月28日

PMC：プロジェクト運営委員会

２－２－２　プロジェクト目標

プロジェクト目標：プロジェクト対象県において、DHISを通じて根拠に基づいた定型業務及び予算計画立案が実践される。

⇒以下のとおり、本プロジェクト目標は「おおむね達成」された。

指標1.　関連するPHD及びDHOにおいて、保健サービスの少なくとも1項目について、予算計画がDHISに基づいて策定される（＝100%）。

指標2.　関連するPHD及びDHOにおいて、保健サービスの少なくとも1項目について、定型業務における資源配分計画がDHISに基づいて策定される（100%）。

本プロジェクトの対象100県のうち、87県のDHOにおいて、2011年12月以前に3カ月以上にわたって収集されたDHISデータの分析に基づき、保健サービスの少なくとも1項目に関して定型業務（資源配分計画）及び予算計画が作成されていることが確認された。

２－２－３　上位目標

上位目標：パキスタンにおいてDHISを通じて根拠に基づく国家保健政策/戦略が策定される。

指標1.　国家保健政策/戦略の少なくとも1つの項目が、DHISにより反映される。

2011年6月30日にパキスタン保健省が解体され、それまで省が保持していた保健行政業務の多くがPHDに移譲された。そのため、評価調査時点（2012年6月）では、国家保健政策/戦略を策定

する機関が不明であるため、上位目標の達成について言及することは困難である。しかし、財政的に豊かな州（例えばパンジャブ州）では、州独自の保健政策/戦略の作成は可能であると推測される。

２－３　プロジェクトの実施プロセス

２－３－１　効果発現に貢献した要因

（1）計画内容に関すること

- ✓ 2009年4月に作成されたPDM（Ver.1）を基に、本プロジェクト開始後に判明した一部州・県を除いてDHISの全国普及に係る研修参加経費、研修教材の印刷・製本・配布に係る予算、新DHIS月例・年間報告用紙の印刷に係る経費、DHISソフトウェアの入れ替えに必要なコンピュータとその周辺機器購入費などの負担すべき予算を実質的に有していないこと、2010年7月に発生した洪水の影響などにより、PDMを3回修正し、それに伴いPOも修正したこと。
- ✓ 前述したようにPDMの修正をしたが、本プロジェクト目標を達成するため、論理的に活動を計画し実施したこと（DHISソフトインストール研修、DHISデータの正確な収集/記入方法の研修→DHISソフトへのDHISデータ入力・分析→分析結果の利用→プロジェクト目標）。
- ✓ 開発調査で作成したDHISソフトのバグを見つけ、本プロジェクト期間内で可能な限り除去し配布したこと（01-01ver, 01-02ver, 01-03verを配布）。

（2）実施プロセスに関すること

- ✓ PHDから選出されているTWG会議をほぼ定期的に開催することによって、それまではどちらかと言えばお互い疎遠であったPHD幹部職員の交流を図り、幹部職員同士の情報交換を図った。
- ✓ 州レベルの職員に研修を実施し、州レベルの職員が県レベルの職員に研修を実施し、県レベルの職員が県内施設の医療従事者へ研修を実施する、というように、カスケード方式を採用し、持続性を視野に入れながら、効率的に研修を実施した。
- ✓ DHISソフトウェアの維持管理のため、再委託先業者に対し、イスラマバードにおけるメインオフィスの設置、並びに、パンジャブ州、シンド州、KP州及びバロチスタン州におけるブランチオフィスの設置を求め、州・県保健職員との維持管理に関するやりとりの円滑化を図った。

２－３－２　問題点及び問題を惹起した要因

（1）計画内容に関すること

- ✓ 最初のC/PであるNHIRCはプロジェクト遂行能力が不足していたこと、プロジェクト合意事項に反して、異なるバージョンのソフトウェアを独自にインストールした等のためにC/Pを含む保健省と度重なる議論をし、またJICAから公式レターを送付して対応したが、プロジェクト活動に影響し、結局、目標達成にも影響を及ぼした。
- ✓ R/Dに州は予算措置をするように明記されているにもかかわらず、一部州・県の予算措置が不十分であったため、当初の対象地域は全国であったが結局対象県を100県まで減

数した。

- ✓ 2011年6月末の保健省解体に伴うC/P不在期間がおよそ6カ月に及んだこと。州レベルでの活動は解体前にJCCで承認されていたので、予定どおり実施することができた。

（2）実施プロセスに関すること

- ✓ パキスタン内の安全事情により一部州及び県ではプロジェクトメンバーの活動が制限されたが、本プロジェクトで開いた会議、あるいは電話や電子メールなどでPHD及びDHO関係者から情報を得ざるを得なかった。

第３章　評価5項目による評価結果

３－１　妥当性

⇒以下の理由により、本プロジェクトの妥当性は「おおむね高い」と判断される。

（1）必要性

- ✓ 保健省は『国家保健政策2009』（最終ドラフト版）の6つの目標の1つとして、「保健サービスを管理・評価するための信頼性のある保健情報の創設」を挙げており、本プロジェクトの目標・上位目標はその保健政策に整合するものである。2011年6月の保健省の解体に伴い、保健行政の責任が州レベルにして移行したことにより、DHIS展開は各州で継続するものと考えられる。

（2）優先度

- ✓ 上位目標とプロジェクト目標はNAPに一致するものである。
- ✓ わが国の対パキスタン国別援助方針のひとつである「人間の安全保障の確保と社会基盤の改善」のための「地域コミュニティ保健の改善」は、パキスタンの対象県及び地域住民の保健ニーズに貢献するものである。

（3）手段としての適切性

- ✓ 本プロジェクトの先方負担事項を満たす州/県を対象にして研修等を実施しており、研修実施県の選定方法は適切である。
- ✓ パキスタンの公衆保健従事者に対し、講習短期間に研修を実施するためにカスケード方式（州マスタートレーナーが県マスタートレーナーに研修を実施し、県マスタートレーナーが県内保健施設職員に研修を実施するという方法）を採用していることが、研修効率性を上げている。
- ✓ JICAはパキスタンにおいて2004年から2007年まで開発調査「保健管理情報システム整備計画調査」を実施しており、わが国として情報システム分野におけるプロジェクト実施経験をもっている。
- ✓ パキスタンでは他ドナーやNGOがさまざまな分野で活動を実施しており、本プロジェクトにおいても世界保健機関（WHO）、国連児童基金（UNICEF）、国連人口基金（UNFPA）、GIZ、Save the Children等と情報を交換しつつ本プロジェクトを実施した。

３－２　有効性

⇒以下の理由により、本プロジェクトの有効性は「おおむね高い」と判断される。

（1）プロジェクト目標の達成

本プロジェクト開始後のDHIS展開のための戦略計画承認の遅れ、一部州・県の不十分な予算措置、2010年7月の大洪水による活動延期、プロジェクトメンバーの活動地域の制限、保健省解体によるC/P機関不在等により、現地活動期間や活動地域の変更を行わざるを得なかったが、プロジェクト目標はおおむね達成された。

（2）因果関係

プロジェクト目標である「プロジェクト対象県においてDHISを通じて根拠に基づいた定型業務及び予算計画立案が実践される」ために、本プロジェクトでは順次段階を踏みながら下図のとおりプロジェクト活動を実施した。なお、諸活動を開始するために、「DHIS展開計画が策定され、JCC会議にて承認される」（成果1）、及びパキスタンの「政府関係機関及び開発パートナーとの間でDHIS推進に係る調整が適切に行われる」（成果6）は当然、必要不可欠な事項である。このように、6つの成果はプロジェクト目標の達成に十分貢献するものである。

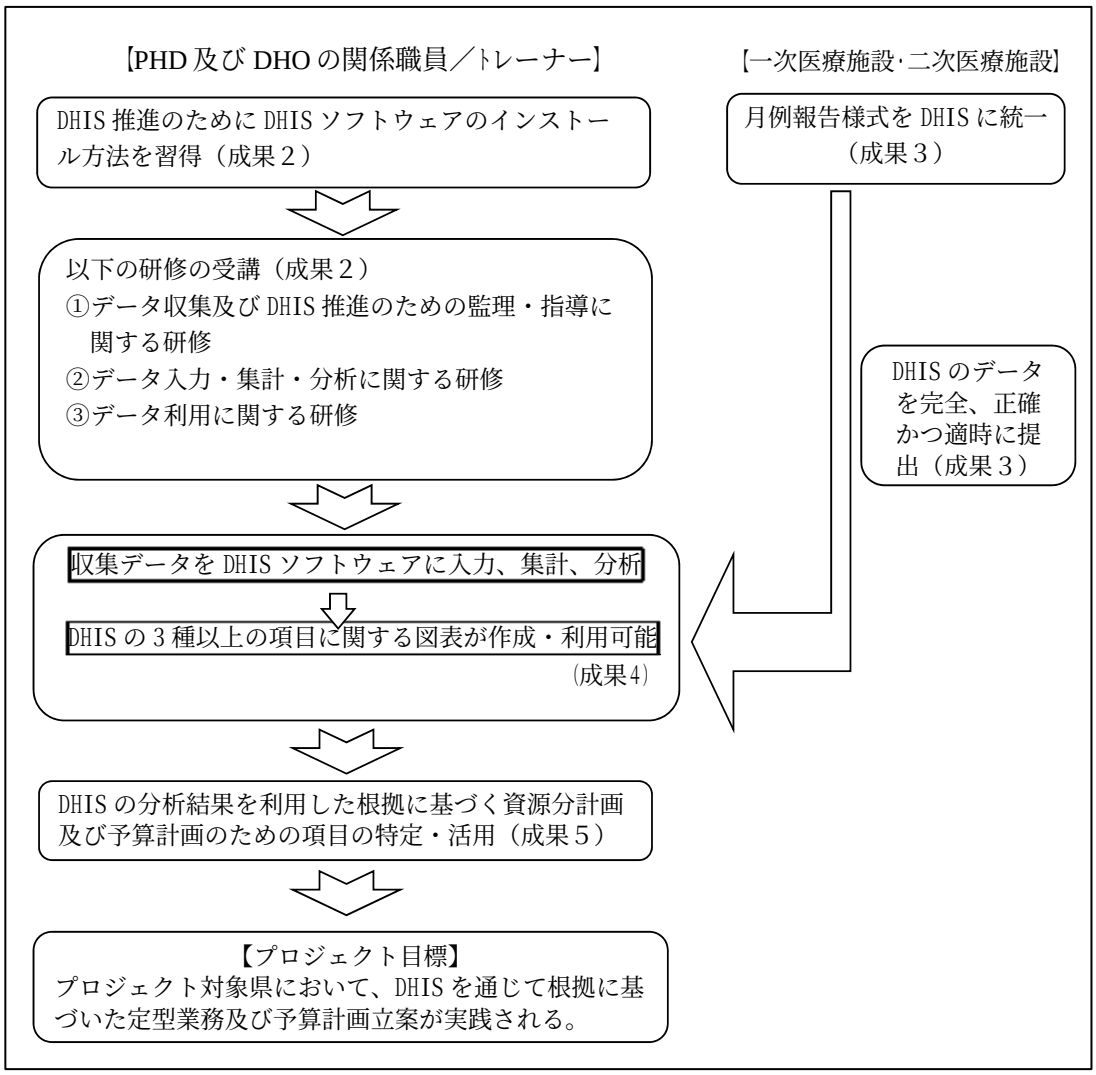

図３－１　本プロジェクトの成果からプロジェクト目標への流れ

３－３　効率性

⇒以下の理由により、本プロジェクトの効率性は「普通」と判断される。

（1）日本側投入

既述のように、DHIS展開のための戦略の承認の遅れや一部州・県の不十分な予算措置等によって、本プロジェクトではPDMとPOを修正して活動期間や対象県を設定しており、日本側の投入のタイミングや質、量はおおむね適切であった。

（2）パキスタン側投入

パキスタン側の負担として本プロジェクト用予算を十分計上していなかった一部州・県があったため、当初の対象県数を制限せざるを得なかったこと、日本人専門家用執務室を当初のNHIRCが確保できずNIHの執務室を使用したこと、不十分なDHIS月例報告用紙印刷予算、C/PであるNHIRCによるプロジェクト合意事項と異なる対応（インストールすべきバージョンとは異なるソフトウェアの導入）、保健省解体後の長期にわたる連邦政府レベルC/Pの不在など、パキスタン側の投入のタイミングや量は不適切なところがあった。また、パキスタン側の投入ではないが、安全上の制約のため、FATA、AJK、KP州、バロチスタン州では活動制限が生じた。

３－４　インパクト

⇒以下の理由により、本プロジェクトのインパクトは「普通」と判断される。

（1）上位目標の達成見込み

2011年6月に保健省が解体したため、連邦レベルで保健政策/戦略を作成する機関が不明であり、かつ全国にわたってDHIS展開を実施する機関がなくなったため、上位目標の達成は困難である。しかし、本プロジェクトの結果、DHISデータは州や県の予算作成や既存資源の配分計画、意思決定などに使用されるようになったことで、対象県以外の地域でのDHISソフトウェア導入が進めば、今後、DHISデータ利用の動きが多くの県に広まることが期待される。

（2）ポジティブ/ネガティブインパクト

本プロジェクトの非協力対象県（43県）のうち、25県が独力でDHIS展開を実施しており、これはポジティブインパクトである。ネガティブインパクトは特にない。

３－５　持続性

⇒以下の理由により、本プロジェクトの持続性は、連邦レベルでは「低い」、州レベルでは「普通」と判断される。

（1）連邦レベル

既述のとおり、パキスタン政府としては、貧困削減戦略文書（PRSP）やミレニアム開発目標（MDGs）などのために保健データが必要とされ、DHISデータの有用性はあるにもかかわらず、保健省の解体に伴い、連邦政府レベルでの保健行政機関が終了時評価現時点（2012年6

月）で存在しないため、連邦レベルでの本プロジェクトの持続性は低い。

（2）州レベル

本プロジェクト終了後も、州レベルでは各PHDが独自に保健政策/戦略を作成し、PHDが州予算に応じてDHIS展開を行い、DHIS展開を継続するものと期待できる。さらに、州・県独自にDHIS研修を実施しているところもあり、またDHIS研修方法や内容を展開・改訂することもできる。

３－６　結　論

PHD及びDHOなど保健業務関係者の努力、及び、日本人専門家が活動の時期や内容を臨機応変に状況判断して本プロジェクトを実施したことにより、プロジェクト目標はおおむね達成された。しかし、対象100県のすべてで、DHISデータの分析に基づき、保健サービスの少なくとも1項目に関して定型業務（資源配分計画）及び予算計画が作成されるにはプロジェクト終了後、ある程度の時間を要することが想定される。

パキスタン政府の地方分権化に伴って保健省が解体されたため、国家レベルで保健政策/戦略が作成されるのかは（終了時評価現時点では）不明であり、更に連邦政府から州への保健予算配分も期待できない。しかし、各州ではDHISデータは有用であり、その分析結果は必要とされているため、各州の予算措置の規模、及び、他ドナー/NGO等の支援規模に応じて、州内でのDHIS展開は期待できる。

第４章　提言と教訓

４－１　提　言

（1）DHISの持続的な活用

本プロジェクトを通じてDHISの初期導入に係る技術移転は完了し、各州でDHISを使用するための素地は整った。今後、各州は、以下の点に留意しながら、DHISを運用していくことが望まれる。

① DHISの運用に必要な予算措置（DHISソフトウェア維持管理費用、DHIS報告用紙の印刷費用、DHISソフトウェアインストール用PC費用等）を実施すること

② DHIS運用に必要な人材育成を継続して行うこと

（2）プロジェクト対象県以外でのDHIS展開

本プロジェクト期間中にDHISソフトウェアがインストールされなかった県に対し、今後はパキスタン側の自助努力でDHISソフトウェアをインストールし、州ごとに、保健行政に係る意思決定を、統一された保健情報システムに基づいて行っていくことが望まれる。

（3）連邦レベルのDHISへの積極的関与

保健省解体前には、DHISの運営は連邦政府（NHIRC）が主導的に行っていたが、保健省解体後は、連邦におけるDHIS運営機関が明確に定められていない（第2回TAG会議において、内閣府及びNIHがDHISに係る州間調整機能を果たす旨、決定されたが、実際に彼らが主体的に動くかは不透明である）。以下の目的のため、連邦レベルのDHISの積極的関与が強く望まれる。

① DHISを国家の統一保健システムとして利用していくこと

② 各州からの保健情報を連邦が吸い上げ、国家レベルの保健政策/戦略を策定していくこと

③ 各州におけるDHIS使用状況を共有するためのフォーラムを設定し、活発な意見交換を行い、現場レベルに適切にフィードバックさせていくこと

とりわけ①に関し、各州が独自にDHISソフトウェアを改良するような事態になった場合、国家として統一したシステムが崩壊していくことが懸念される。

４－２　教　訓

（1）プロジェクト開始の条件の明確化

本プロジェクトは、当初は「統一のDHISソフトウェアを全国に導入し運用する」という枠組みであった。しかしながら、パキスタン側の負担事項であった①DHISを稼働させるために必要なハードウェアをDHOに設置する、②DHISに必要なデータを入力するための報告用紙を各県で一次・二次医療施設に配布する、という前提条件が、当初の対象地域であった142県（全県）で担保されず、結果としてこれらの条件を担保できた100県のみが対象地域となった。

これを当初から回避するためには、プロジェクト開始のための前提条件を明確にし、それらを開始までにクリアしておく必要があること〔本プロジェクトの場合、すべての州で上記予算を網羅したPC-Iを作成・承認（または、PC-Iによらないリカレントコストからの支出、ドナーからの支援）すること〕に留意する必要がある。

（2）問題があるC/P機関への適切な対応

保健省解体前の連邦レベルのC/P機関は、NHIRCであったが、プロジェクト実施に関し、数々の妨害行為と思われる阻害活動を行った。突然NHIRCの長がJICAによる技術支援は不要であると発言したり、各州のDHISコーディネーターを招集する会議の招待状の発出を遅延させたり、邦人コンサルタントによる現地再委託業者の選定に関し無理難題な要求を行う等、である。C/P機関に問題がある場合、早期にC/P機関の上位機関及び政府援助窓口〔パキスタンでは保健省及び経済協力局（EAD)〕を巻き込みつつ、問題の解決を図る必要がある。

４－３　総　括

（1）連邦レベルにおけるDHISのニーズ

保健省解体後、NHIRCに取って代わる連邦レベルにおけるDHIS取りまとめ及びコーディネーション機関が任命されるまでに、多大な時間を要した。それはつまり、連邦レベルにおいて、DHISのニーズが少ないことを一面で意味していると思われる。DHISはその名が示すとおり、「District」Health Information Systemであり、州及び県が主体となり、根拠に基づいて人的・物的資源の配分を行うことを意図して設計されたものである。しかしながら、県から州に吸い上げられるさまざまな保健情報を更に連邦レベルが吸い上げ、国家としての戦略を策定するためには最適なツールであることから、連邦におけるこのアクションが求められる。保健省自体が州に分権されたことから、このようなニーズ、つまり国家としての戦略を策定する、というような活動は、優先順位が低いものとも考えられる。

（2）プロジェクトの達成レベルと今後の展開

PDMの指標に示された数値目標はほぼ達成し、DHISの運用に係る基礎はこのプロジェクトで築いた、と考えられる。一方、今後の持続性に関しては、前述したとおりパキスタン側の自助努力によるところが非常に大きいが、幸いにも、プロジェクトを通じて、DHISの必要性を各州が認識したので、各州の関係オフィサーがイニシアティブを取って継続していくことを期待する。

４－４　留意事項

パキスタンでは、州・地域ごとに予算確保の手続きが異なり、特定の州・地域が右代表し、一括して予算を取得することは不可能である。そのため、今回のプロジェクトのような全国展開型の技術協力プロジェクトを実施する場合、各地域において各々必要な予算確保の手続きを完了させる必要があるが、これらの手続きを限られた期間（例：詳細計画策定調査からプロジェクト開始まで）で足並みを揃えて行うことは、例えばそれらの取りまとめを実施する連邦の極めて強力なリーダーシップ等がない限り、困難である。

したがって、パキスタンにおいて、連邦の極めて強力なリーダーシップが確認できない限り、全国展開型の技術協力プロジェクトを実施するのは避けた方がよい。

付　属　資　料

終了時評価に係る議事録

MINUTES OF MEETINGS BETWEEN THE JAPAN INTERNATIONAL COOPERATION AGENCY AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF ISLAMIC REPUBLIC OF PAKISTAN ON JAPANESE TECHNICAL COOPERATION FOR THE DISTRICT HEALTH INFORMATION SYSTEM PROJECT FOR EVIDENCE-BASED DECISION MAKING AND MANAGEMENT

The Japanese Terminal Evaluation Study Team organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Mr. Toshiya Sato, Senior Representative of JICA Pakistan Office, carried out the review and evaluation with the authorities concerned of the Government of Islamic Republic of Pakistan on the final result of the District Health Information System (DHIS) Project for Evidence-Based Decision Making and Management (hereinafter referred to as "the Project") on the basis of the Record of Discussions signed on April 25, 2009 (hereinafter referred to as "the R/D"). The terminal evaluation was implemented by the Team which held a series of discussions on the Project progress, achievement and matters pertaining to a sustainable use of DHIS.
As a result of the discussions in the 2nd Technical Advisory Group meeting held on June 15, 2012, both the Japanese and Pakistani side agreed on the matters referred to in the document attached hereto.

Islamabad, June 15, 2012

Toshiya Sato
Terminal Evaluation Study Team Leader
Senior Representative (OP)
JICA Pakistan Office

Amjad Mahmood
Senior Joint Secretary (CMA)
Cabinet Division
Government of Pakistan

05/11/12

Birjees Mazhar Kazi
Executive Director
National Institute of Health
Government of Pakistan

Syed Zain Gillani
Deputy Secretary (Japan)
Economic Affairs Division
Government of Pakistan

Saima Rashid
Deputy Director
Ministry of Inter Provincial Coordination
Government of Pakistan

THE ATTACHED DOCUMENT

1. Achievement of DHIS Project

The both Japanese and Pakistani sides confirmed the contents of the presentation material prepared by JICA DHIS Project, which is given in ANNEX I.

2. Result of Terminal Evaluation Study

The both Japanese and Pakistani sides confirmed the contents of the Joint Evaluation Report, which is given in ANNEX II.

3. Latest DHIS Software (Version 1. 03)

(1) The copyright to the latest DHIS software belongs to JICA and Cabinet Division/National Institute Health as well as all Provincial Health Departments (PHDs).

(2) JICA agreed to allow all PHDs to utilize and revise, if necessary, the latest DHIS software only in Pakistan and only for public purposes, without any prior consent of JICA.

(3) The Pakistani sides strongly requested JICA to provide the warranty services for the latest DHIS software. JICA showed his intention to make a contract with AZM for such warranty services to be provided through the AZM main support center in Islamabad. The warranty period will be decided after internal consultation by JICA.

4. Measures to be Taken by the Pakistani Side for Sustainable Use of DHIS

It was agreed that in accordance with the health devolution under 18th constitutional amendment, the DHIS implementation shall be carried out solely by the respective provincial health departments whereas the National Institute of Health (NIH) under the supervision of the Cabinet Division shall act as supervisory body without involvement of any financial resources from the federal Government / NIH.

5. Measures to be Taken by the Japanese Side for Sustainable Use of DHIS

In addition to 3 (3), the Pakistani side also requested JICA to extend their technical assistance for another one year. While JICA agreed to discuss the issue internally and inform the Pakistani side of the result of the discussion accordingly, JICA reiterated that the following conditions for a new project should be understood by the Pakistani side:

1) The new project (extension of technical assistance) might happen but it can be started one year later at earliest.

2) Taking into consideration one of the lessons learned from the current project, which is "to arrange the necessary conditions to commence the project" (See 3-2 a) of ANNEX II for details), the new project can be started only after confirmation of necessary conditions required for targeted province(s) and district(s) such as the provision of hardware, the contract on software maintenance with a software company.

ANNEX I ACHIEVEMENT OF PROJECT

ANNEX II JOINT EVALUATION REPORT

ANNEX I

Technical Advisory Group Meeting for National Health Information System Project for Evidence Based Decision Making & Management

Major Activities & Achievements

DHIS Trainings Implemented by the Project

Causes	Periods	Target (Nos of participants)
• Training on data collection, monitoring and instruction	July 2010	Provincial Master Trainers excluding Punjab (28)
	August 2010	12 DHOs from KP (48 master trainers) and 13 DHOs (39) from Balochistan
• Training on data entry, processing and analysis	February 2011 July 2011 October 2011 March 2012	Master trainers and statistical officials of PHDs and DHOs (18 from PHDs and 237 from DHOs)
	From Nov. 2011	Provincial coordinators DHIS
	December 2011 to January 2012	Staffs in DHOs
• Training on Use of Information	August 2010	Officials from PHD Punjab and DHOs in Punjab (9)
	August 2011	Provincial master trainers (36)
	November 2011 April 2012	Decision makers in DHOs (101)

Nos. of Trainees Trained by PHDs (including Donors Trainees)

	Nos of Districts	Nos. of Provincial Master Trainers Trained	Number of District Master Trainers Trained	Number of Health Facility Staff Trained
Sindh	11	5	33	2,483
Khyber Pakhtunkhwa	24	10	91	5,062
Balochistan	2	3	5	255
AJK	5	4	14	1,294
FATA	10	3	30	792
Total	52	25	173	9,886

Installation of DHIS Software

Phase	1st workshop	2nd workshop	Additional workshop
Periods	➢ 17th to 19th February 2011 ➢ 21st to 23rd February 2011 ➢ 24th to 26th February 2011 ➢ 28th February to 2 March 2011	➢ 11th to 13th July 2011 ➢ 18th to 20th July 2011 ➢ 25th to 28th July 2011	➢ 12th to 14th October 2011 ➢ 26th to 27th March 2012
Participants	➢ 17 districts in KPK ➢ 10 districts in FATA ➢ 5 in AJK ➢ 5 districts in Sindh ➢ 2 districts in Baluchistan ➢ 18 district in Punjab	➢ 7 districts in KPK ➢ 5 districts in Sindh ➢ 12 districts in Baluchistan ➢ 13 district in Punjab ➢ ITC	➢ 1 district of Sindh ➢ 6 districts of Punjab ➢ PHD Gilgit & Baltistan ➢ CDA

Number of Districts kept more than 90% of compliance rate from main health [illegible]

Provinces	In last 6 months	In last 4 months
Punjab	33	34
Sindh	1	4
Khyber Pakhtunkhwa	6	11
Blochistan	2	5
AJK	2	4
FATA	4	5
Total	48	63

Number of districts show more than 90% of compliance rate from national [illegible]

Province	Nos. of target districts	2011		2012			
		Nov	Dec	Jan	Feb	Mar	Apr
Punjab	36	35	33	34	34	35	35
Sindh	11	3	4	6	5	8	7
Khyber Pakhtunkhwa	24	11	15	19	18	16	14
Blochistan	14	6	7	8	6	4	5
AJK	5	3	3	5	4	4	5
FATA	10	7	8	9	9	9	9
Total	100	65	70	81	76	76	75

Problems on DHIS Software Raised by BHDs and DHOs

Type of Problems	2011					2012				
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar.	Apr.	May
Lack of basic computer knowledge	0	0	0	1	0	0	0	0	1	0
Lack of DHIS knowledge	5	4	12	5	2	3	10	7	4	3
Improvements of DHIS	20	2	1	2	0	1	2	3	0	0
New requirements	8	0	2	1	0	11	2	0	1	0
DHIS related support	25	19	25	34	8	12	6	22	16	9
Others (hardware, OS, virus, etc)	0	10	6	4	9	6	9	4	4	3
Total	58	35	46	47	19	33	29	36	26	15

Usage of DHIS Information

Provinces	Nos of Districts Responded	Usage of DHIS Information				Districts Using DHIS data in terms of 1) to 4)
		1) Budget preparation	2) Policies / strategies planning	3) Resource allocation	4) Others	
Punjab	36	58%	61%	69%	42%	100%
Sindh	3	100%	100%	67%	0%	100%
Khyber Pakhtunkhwa	24	38%	50%	83%	54%	100%
Balochistan	12	100%	100%	100%	17%	100%
AJK	5	40%	40%	60%	0%	100%
FATA	7	86%	14%	100%	14%	100%
Total	87	61%	60%	79%	36%	100%

Present Situation of Scaling Up of DHIS in Provinces

Present Situation of Scaling Up of DHIS in Provinces

Provinces	Total Nos. of districts	Nos. of target districts	Non target districts		Note
			DHIS districts	Non-DHIS districts	
Punjab	36	36			
Sindh	23	11	11	1	Supported by NPPI. Revised PC-I was submitted.
Khyber Pakhtunkhwa	25	24		1	Revised PC-I was submitted.
Balochistan	30	14	14	2	PC-I was approved. And revised PC-I including remained 2 districts was submitted.
AJK	10	5		5	Supported by GIZ
FATA	10	10			Supported by Save the Children
Gilgit & Baltistan	7			7	
Islamabad (ICT + CDA)	2			2	
Total	143	100	25	18	

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ANNEX II

JOINT EVALUATION REPORT

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Abbreviations

BHU	Basic Health Unit
DG	Director General
DHO	District Health Office
DHIS	District Health Information System
EDOH	Executive District Officer, Health
FLCF	First Level Care Facility
GB	Gilgit-Baltistan
GIZ	Gesellschaft für Internationale Zusammenarbeit
GoJ	Government of Japan
GoP	Government of Pakistan
HIS	Health Information System
HMIS	Health Management Information System
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
KP	Khyber Pakhtunkhwa
MDGs	Millennium Development Goals
MNCH	Maternal, Neonatal & Child Health
MoH	Ministry of Health
NAP	National Action Plan
NHIRC	National Health Information Resource Centre
NIH	National Institute of Health
NPPI	Norway, Pakistan Partnership Initiative
NSC	National Steering Committee
ODA	Official Development Assistance
PDM	Project Design Matrix
PHD	Provincial Health Department
PMC	Project Management Committee
PO	Plan of Operation
PRSP	Poverty Reduction Strategy Paper
RHC	Rural Health Center
TAG	Technical Advisory Group
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development

1. Introduction

1-1 Outline of the Project

GoP developed HMIS in 1992 with the support of USAID, however, after the devolution in 2001, GoP felt need of revamping the centralized information system covering only FLCF. Based on the request from GoP, JICA implemented the Study on Improvement of Management Information Systems in Health Sector (2004-2007). Through the study, a new health system called DHIS was developed and NAP for the nationwide prevalence of DHIS was approved at the Steering Committee.

For the purpose of timely implementation of NAP through the capacity development of NHIRC, GoJ has continued its support for the prevalence of DHIS through a technical cooperation project called "DHIS Project for Evidence-Based Decision Making and Management" since 2009.

(1) Overall Goal of the Project

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.

1-2 Objectives of Evaluation

Main objectives of the evaluation are as follows:

- To review the achievements and assess the major outputs of the Project according to the latest PDM (Its final revision was made and agreed in the 1st TAG meeting held on January 24, 2012).
- To evaluate the Project with the evaluation frame work of 5 criteria, i.e. relevance, effectiveness, efficiency, impact and sustainability.
- To recommend actions to be taken by GoP for ensuring the sustainability of the Project and to extract lessons learned through the Project.

1-3 Schedule of Evaluation

Date (Year 2012)		Activity
June 5	Tue	Internal Meeting, Meeting with NIH
June 6	Wed	Visit to Haripur District, KP Province
June 7	Thu	Visit to Provincial Health Department in Punjab Visit to Sheikhupura District, Punjab Province
June 8	Fri	Visit to Kasur District, Punjab Province
June 9	Sat	Preparation of Terminal Evaluation Report
June 10	Sun	Preparation of Terminal Evaluation Report Interview with PHD
June 11	Mon	Preparation of Terminal Evaluation Report Interview with GIZ
June 12	Tue	Preparation of Terminal Evaluation Report Interview with Save the Children
June 13	Wed	Internal Meeting on Terminal Evaluation Report Interview with PHDs
June 14	Thu	Monthly DHIS Working Group Meeting
June 15	Fri	2nd TAG Meeting and Signing of Minutes of Meetings

1-4 Members of Evaluation Team

Mr. Toshiya Sato	Team Leader Senior Representative, JICA Pakistan Office
Mr. Kunio Nishimura	Evaluation and Analysis Senior Consultant, ICONS Inc.

Mr. Tomoyuki Nagita	Cooperation Planning Representative (Health), JICA Pakistan Office

1-5 Methodology of Evaluation

Major items evaluated are the following aspects based on PDM and PO, approved in the 1st TAG meeting held in January 2012:

1) Achievements of the project based on the indicators set in the PDM
2) Implementation process
3) Analysis by the five evaluation criteria

Five evaluation criteria are as follows.

(1) Relevance

Relevance of the project plan is reviewed in terms of the validity of the project purpose and the overall goal in connection with the development policy of the GoP, aid policy of the GoJ, needs of beneficiaries, and by logical consistency of the project plan.

(2) Effectiveness

Effectiveness is assessed by evaluating the extent to which the project has achieved its purpose and by clarifying the relationship between the purpose and outputs.

(3) Efficiency

Efficiency of the project implementation is analysed with emphasis on the relationship between outputs and inputs in terms of timing, quality and quantity of inputs.

(4) Impact

Impact of the project is assessed on the basis of both positive and negative influences caused by the project.

(5) Sustainability

Sustainability of the project is assessed in terms of political, institutional, financial and technical aspects by examining the extent to which the achievements of the project would be sustained or expanded after the project period.

2. Evaluation

2-1 Achievements of the Project

The achievements of the Project are as follows. For the details, see Evaluation Grid in Annex 2.

2-1-1 Outputs

Output 1: Strategic planning for scaling up DHIS is approved at JCC.

The Output 1 has been achieved.

Though Japanese experts started their activity in Pakistan in August 2009, strategic planning for scaling up DHIS was approved at the 1st JCC held in June 2010 due to the procedure of Pakistan side.

Output 2: PHDs / DHOs staff is adequately trained on the DHIS operation.

The Output 2 has been achieved.

The latest version of DHIS software was installed in all PHDs and 100 DHOs. 81 provincial master trainers and 129 district master trainers were trained on (i) data collection, (ii) data entry/processing/analysis, data use, and (iv) other subjects as of April 2012.

Output 3: The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.

The Output 3 has been partially achieved.

PHDs reported to Japanese experts that DHIS forms were consolidated in all the target districts even though a certain lack of DHIS forms and usage of old forms (HMIS forms) were found in some districts.

While about 50% of 100 target districts achieved the indicator, "compliance rate of DHIS monthly report from health facilities are kept more than 90% at the last 6 months of the project", the compliance rate has shown consistent improvement in each province during the project period.

Output 4: The DHIS data are entered into the DHIS software, processed and analysed at PHDs and DHOs.

The Output 4 has been achieved.

Staff of PHDs and DHOs can enter DHIS data into DHIS software, process and analyze by themselves. Staff actually can create tables and charts, sort into files, and readily available,

for more than two key DHIS indicators at the PHDs and DHOs.

Output 5: By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at PHDs and DHOs.

The Output 5 has been almost achieved.

It has been confirmed by questionnaire survey that 87 districts out of 100 target districts collected DHIS data more than 3 months in 2011 and used health services budget planning and resource reallocation.

Output 6: The DHIS is adequately coordinated among the stakeholders.

The Output 6 has been achieved.

Since the beginning of the Project, NSC meeting, JCC meetings, TAG meetings, PMC meetings, and meetings with JICA/donors were held.

2-1-2 Project Purpose

Project Purpose: Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan.

Project Purpose has been almost achieved.

In 87 out of 100 target DHOs as well as PHDs, resource allocation and budget plans were prepared by using the results of analysis of the DHIS data.

2-1-3 Overall Goal

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

Prospect of Overall Goal achievement is uncertain.

After the devolution of MoH in Pakistan, it has not been decided which organization or institution takes responsibility to make national health policy and strategy at the federal level. Therefore it is difficult to prospect Overall Goal at present.

2-2 Results of the Evaluation

2-2-1 Implementation Process

(1) Progress of Activities

Due to the delay of the holdings of NSC meeting and JCC meetings and natural disaster (flood), the initial PO of the Project was modified (See Annex2-1). Despite of the above mentioned difficulties, all the activities were conducted and accomplished as per the modified PO. The tremendous efforts of staff such as provincial DG health, EDO, coordinators, etc. in provinces and districts deeply contributed to accomplishment of the activities.

(2) Management of the Project

Both sides held several meetings such as NSC meeting, JCC/TAG meetings for getting approval of the conducted/future activities as well as solving any occurred problems.

The project conducted periodical monitoring by itself and if any problems were found out, the Project gave some solutions and/or suggestions directly or through national staff. And through the main office and branch office established in Islamabad and Lahore, respectively, staff gave advice/solutions through telephone or E-mails. Working Group meetings were held 12 times during the Project and progress of activities and any issues on the project were discussed in these meetings.

Furthermore PDM was revised 3 times corresponding to the change of situation of the project.

2-2-2 Analysis by the Five Evaluation Criteria

The results of analysis by the Five Evaluation Criteria are summarized below. For the details, refer to Evaluation Grid in Annex 2.

(1) Relevance

The relevance of the Project is evaluated to be **"Almost High"** in reference to the needs and health policy of Pakistan as well as Japanese ODA policy for Pakistan.

"Generate reliable health information to manage and evaluate health services" is included in Six Policy Objectives of NATIONAL HEALTH POLICY 2009 (Final Draft). For this purpose NHIRC was envisioned. Due to the devolution of MoH in June 2011, NHIRC was absorbed into NIH. While no organization at the federal level has been / will not be ready to take a full responsibility to realize the above mentioned objective at Federal level so far,

the implementation of DHIS is expected to be continued at the provincial level. Furthermore, to gather and use reliable health information is necessary to commit the PRSP and MDGs. The project is planned to implement DHIS.

The Project is consistent with "Program for the Improvement of Regional Community Health" in "Ensuring Human Security and Human Development" as one of Japan's Assistance Policy for Pakistan. In addition, the Study on Improvement of Management Information System in Health Sector was conducted by JICA from 2004 to 2007 in Pakistan.

Project Purpose points the way to Overall Goal, however, as the devolution of MoH was executed, certain organization/institute is necessary to be nominated for dissemination of DHIS nationwide in Pakistan.

(2) Effectiveness

The Effectiveness of the Project is evaluated to be **"Almost High"**.

Despite occasional negative attitude of NHIRC, insufficient budget allocation in some provinces, natural disaster (flood) and the devolution of MoH during the Project, the project adapted to such sudden changes in circumstances in Pakistan and Project Purpose has been almost achieved.

The team confirmed with provincial DG health, EDO and district coordinators that they have started using DHIS data for resource reallocation and budget planning.

(3) Efficiency

The Efficiency of the Project is evaluated to be **"Moderate"** in total.

[Achievement of Outputs]

Almost all the Outputs have been achieved despite of the fact that some Inputs were made late or were not made. If natural disaster did not occur and Pakistan side arranged necessary budget to all districts, all Outputs might be achieved completely, without shrinking the target area.

[Causal relation]

Following sudden changes in circumstance of the Project, some activities has been modified and conducted on the modified PDM and PO.

The following Important Assumptions might have been included:

1) Counterpart Organization is not changed or new Counterpart Organization is appointed in a timely manner in the case of its change.
2) Severe natural disaster doesn't occur.

[Execution of Inputs]
The quality, quantity, timing and cost of Inputs from Japanese side are appropriate. However some Inputs from Pakistan side were delayed or insufficient mainly due to budgetary constraint. The project changed some Outputs of PDM corresponding to circumstance.

[Factors to influence on efficiency]
Though there were some difficulties such as hamper by NHIRC, deficient budget for DHIS training and printing of DHIS forms, security restrictions for visit to FATA, AJK, Balochistan and KP, the Project well discussed to judge situations and changed the previous plans, and PHDs/DHOs have tried their best in doing their duties.

(4) Impact
The Impact of the Project is evaluated to be **"Moderate"** from the followings.

Achievement of Overall Goal is difficult to be realized even after the completion of the Project. There is a gap of target areas between Overall Goal and Project Purpose because the target areas of the project are 100 districts of 5 provinces/FATA/AJK, while Overall Goal is "nationwide in Pakistan". Furthermore, there are some inhibitions to achieve Overall Goal such as unclear responsible organization/institution for scale-up DHIS nationwide, budget allocation for disseminating DHIS, maintenance of DHIS software.
A positive impact is that 24 districts, which did not meet the criteria for the target districts, have introduced DHIS on their own efforts.

(5) Sustainability
The Sustainability of the project is evaluated to be **"Low"** at Federal level and **"Moderate"** at Provincial level based on the assessments from a) Policy Aspect, b) Organizational/Institutional and Financial Aspects, and c) Technical Aspect, as below:

a) Policy Aspect
It is not clear which organization/institution makes National Health Plan/Strategy at present. As DHIS data is fundamental information to concrete commitments to the MDGs

and reduce poverty along the PRSP, a certain organization/institution is required to be nominated for the prevalence of DHIS.

b) Organizational/Institutional and Financial Aspects

As mentioned above, a responsible organization/institution for DHIS does not exist at Federal level, however, PHDs will be in a position to implement DHIS by own budget, subject to the availability of their budget.

c) Technical Aspect

At provincial and district level, trainings related to DHIS have been conducted by their effort except trainings by the Project. Therefore province/district health offices have some institutions which spread and update DHIS training method and contents.

The province health department will disseminate the results of the Project to other districts within its province.

2-2-3 Conclusions

As the conclusions, all five criteria can be reasonably evaluated. This is the results of tremendous efforts by PHDs/DHOs, and certain contributions by the Project. The Project Purpose has been almost achieved by efforts of both sides, however, it is not clear which organization or institution takes responsibility to promote DHIS at Federal level and, furthermore, commits health parts of PRSP and MDGs on world stage. Since the decentralization policy has been implemented and a financial support from Federal Level to Provincial Level is not highly expected, each province will be required to take the lead in a sustainable utilization of DHIS.

3. Recommendations and Lessons Learned

3-1 Recommendations

1) Keep the sustainability for DHIS utilization

It is strongly requested that DHIS should be kept utilized, taking into consideration the following measures for ensuring the sustainability of utilization of DHIS:

a. To secure necessary budgets for operation and maintenance for DHIS in each province, including 1) Software Maintenance (including Revision of Software) and 2) Printing of Tools and Instruments

b. To continue capacity building for DHIS operation in each province through

refresher trainings

c. To hold regular meetings in each province on the status of DHIS implementation, involving all the district DHIS coordinators

2) Extend DHIS to the remaining districts

In the project period, due to the budget constraint by GoP, DHIS could not be installed in all the districts in Pakistan. It is recommended that DHIS should be installed to the remaining districts, which helps GoP establish a unified decision making mechanism.

3) Feedback to field level by top managements

Even through DHIS itself is well operated and evidence-based information is coming from field level to district level and provincial level, efficiency and validity of DHIS will be negatively affected if feedback of necessary resource allocation from district and provincial levels to field level is not taken appropriately.

It is recommended that, in addition to keeping producing the monthly report and using it for appropriate resource allocation and budget planning, feedback to field level should be strengthened.

4) Management of DHIS in the Federal Level

NHIRC managed DHIS at Federal level before the devolution of MoH, though, DHIS has not been managed well at Federal level since the devolution occurred. If Federal level thinks that management of DHIS in Federal level is important to keep a unified DHIS and to get health related information from provinces, a federal body should be established to secure the coordination among each province to regularly discuss DHIS related matters including revision of DHIS software, and feed them back to DHIS.

3-2 Lessons Learned

1) Arrange the necessary conditions to commence the project

When the project started, necessary conditions in districts level, such as provision of personal computers, budget allocation for reporting tools, were not sufficient. Therefore, during the project implementation period, project target districts had to be changed from all districts to some districts of which budget were secured.

In that sense, necessary conditions for the project target area should have been confirmed before the commencement of the project.

2) **Strong motivation in the provincial level**

While a strong leadership has not been seen in the federal level, it has been found that the provincial level has taken an initiative for the project implementation. This indicates that the provincial level have found the necessity of DHIS and applied it to their practical works.

END

ANNEX 1-1.

PROJECT DESIGN MATRIX (Ver. 4)

Date: 24th January 2012

Project Title: District Health Information System Project for Evidence-Based Decision Making and Management	**Period of Cooperation:** 3 years (from August 2009 to July 2012
Implementing Agency in Beneficiary Country: National Institute of Health (NIH)	**Target Group:** NIH, Province Health Departments (PHDs) and District Health Office (DHOs)
Target Area: Selected Districts/Agencies (as per attached)	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
[Overall Goal] Policy and strategies for health services are developed in an evidence-based manner, through sustainable District Health Information System(DHIS), nationwide in Pakistan	1. At least one item of the national health strategy/policy at the federal level is supported, underpinned and justified by the DHIS.	1. DHOs documents/reports 2. PHDs documents/reports 3. NIH documents/reports	• Federal Government puts high priority on implementation of DHIS.
[Project Purpose] Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan	1. At least one item of health services budget planning at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (= 100%) 2. At least one item of health services routine operation (resource allocation) at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (= 100 %)	1. Results of questionnaire survey 2. Results of questionnaire survey	
[Output] 1. **[Strategic planning]** Strategic planning for scaling up DHIS is approved at JCC.	1.1 Strategic planning for scaling up DHIS is approved at JCC.	1-1 Project documents	
2 **[Training]** PHDs / DHOs staff is adequately trained on the DHIS operation.	2-1 Revised DHIS software is installed at the DHOs and PHDs. (= 100 %) 2-2 DHO trainings complete training programs on: (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %) 2-3 PHD trainers complete training programs on (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %)	2-1 Project documents 2-2 Project documents 2-3 Project documents	

3 **[Operation 1: paper-based]** The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.	3.1 Monthly and yearly report forms of the HMIS are replaced by the DHIS monthly report at the health facilities (= 100 %) 3.2 Compliance rate of DHIS monthly report from health facilities are kept more than 90% at the last 6 months of the project	3-1 PHD's reports 3-2 PHD's reports	
4 **[Operation 2: computer-based]** The DHIS data are entered into the DHIS software, processed and analyzed at PHDs and DHOs.	4-1 Tables or charts are created, sorted into files, and are readily available, for more than two key DHIS indicators at the PHDs and DHOs.	4-1 DHIS analysis file(s) at DHOs	
5 **[Operation 3: human-based]** By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at PHDs and DHOs.	5-1 Lists of identified items for evidence-based resource allocation are available at the PHDs and DHOs. (= 100 %) 5-2. Lists of identified items for evidence-based budget planning are available at the PHDs and DHOs. (= 100 %)	5-1 Results of questionnaire survey 5-2 Results of questionnaire survey	
6. **[Operation 4]** The DHIS is adequately coordinated among the stakeholders.	6-1 The meetings with development partners and related government organizations are held.	6-1 Minutes of Meetings	

2

[Activities] [Strategic planning] 1-1 Analyze the current situation of the DHIS implementation progress and set up target figure, by using available secondary data and conducting baseline survey 1-2 Review and update the DHIS National Action Plan (NAP). 1-3 Develop an strategic planning for scaling-up DHIS. 1-4 Select districts which have necessary budgets for project activities 1-5 Get approval of the strategic planning for scaling up DHIS including revised NAP at JCC. [Training] 2-1 Based on the strategic planning, develop training plans at different levels for different subjects (*1). 2-2 JICA experts modify and debug the DHIS software. 2-3 Install the modified DHIS software in DHOs and PHDs. 2-4 Review and revise the DHIS training materials (*2) to increase user-friendliness, if needed, newly develop. 2-5 Based on the training plans, conduct training programs on data collection (*3). and coordination, monitoring and supervision for the DHIS operation 2-6 Based on the training plans, conduct training programs on data entry, processing and analysis. (*4) 2-7 Based on the training plans, conduct training programs on data use (*5) [Operation 1: paper-based] 3-1 PHDs discard the HMIS monthly/yearly report forms and distribute the DHIS monthly report forms. 3-2 DHOs monitor the health faculties on: (i) completeness, (ii) precision, and (iii) timeliness of the DHIS reporting. 3-3 PHDs supervise DHOs on (i) completeness, (ii) precision, and (iii) timeliness of the DHIS reporting. (3-4) JICA experts supervise PHDs to conducts activities aforementioned smoothly.) [Operation 2: computer-based] 4-1 DHOs conduct the: (i) data entry, (ii) data processing, and (iii) data analysis of the collected DHIS monthly report. 4-2 PHDs conduct the data analysis of the collected DHIS monthly report. 4-3 JICA experts supervise the activities 4-1 and 4-2 through PHDs [Operation 3: human-based] 5-1 PHDs and DHOs conduct the (i) budget preparation for the following fiscal year, (ii) adjustment of resource allocation, and (iii) regular feedback to health facilities, using the results of DHIS monthly reports.	[Inputs] **Japan:** **Japanese/International Experts** • Team Leader • Deputy Team Leader/Monitoring • Deputy Team Leader/Supervision • Expert on data collection • Expert on data analysis • Expert on data use • Expert on DHIS Software maintenance • Cost for software maintenance from August 2009 to June 2012 • Operational cost for Japanese/international experts • Cost, for replacing HMIS software with DHIS software at DHOs • Cost for training for provincial master trainers • Cost for training for district master trainers in KPK. and Balochistan (only for training mentioned in Activities 2-4) • Cost for training for district master trainers (only for trainings mentioned in Activities 2-5 and 2-6) **Pakistan** • Concerned staff as counterpart personnel (=>recurrent budget) • Administrative and operational costs (=> recurrent budget) • Cost for hardware procurement and maintenance (=> federal PC-1, Provincial PC-1s) • Cost for training, except the one to be borne by Japan (federal PC-1, Provincial PC-1, regular budget) • Cost for software maintenance from July 2012 onward (PC-1) • Office(s) and facilities such as electricity, gas, water supply necessary for Project activities and operational expenses for utilities • Cost for replacing HMIS report forms with DHIS report forms at health facilities	

5-2 JICA experts supervise the activities 5-1 through PHDs [Operation 6] 6-1 Strengthen, reorganize or adjust the structure of the DHIS administrative channel form health facilities, DHOs, and PHDs. 6-2 Hold the TAG meetings on regular and irregular basis (e.g. case studies of data use for evidence-based management of health services). 6-3 Hold the DHIS Inter-district meetings at PHD level on regular basis. 6-4 Promote the application of the DHIS among other development partners.		**[Preconditions]** • MOH continuously supports the project. • MOH/NHIRC remains in the MOH system as the division responsible for HISs. • MOH insures financial resources of the project at federal, provincial and district levels. • Security will no not deteriorating in Pakistan.

[Remarks]

(*1) Levels: PHDs, DHOs
Subjects: (i) data collection, (ii) data entry, processing and analysis, (iii) data use, (iv) Coordination, monitoring, and supervision for the DHIS operation

(*2) The DHIS training materials are composed of: (i) curricula, (ii) textbooks, (iii) teaching guides, and (iv) MS Power Point modules.

(*3) i.e. how to fill out monthly DHIS report forms and submit them to DHOs

(*4) i.e. how to enter paper-based data into software, aggregate and/or analyze them

(*5) i.e. how to use the data for evidence-based management of health services

Attachment: List of Target Districts

Province	Name of Target Districts	No
Punjab	Attock, Bahawalnagar, Bahawalpur, Bhakkar, Chakwal, Chiniot, Dera Ghazi Khan, Faisalabad, Gujranwala, Gujrat, Hafizabad, Jhang, Jhelum, Kasur, Khanewal, Khushab, Lahore, Layyah, Lodhran, Mandi Bahauddin, Mianwali, Multan, Muzaffargarh, Narowal, Nankana Sahib, Okara, Pakpattan, Rahim Yar Khan, Rajanpur, Rawalpindi, Sahiwal, Sargodha, Sheikhupura, Sialkot, Toba Tek Singh, Vehari	36
Sindh	Dadu, Hyderabad, Khairpur, Mattiari, Mirpurkhas, N.S. Feroze, Sanghar, Sukkur, T. Allahyar, T.M. Khan, Thatta	11
Khyber Pakhtunkhwa	Abbotabad, Bannu, Batagram, Buner, Charsadda, Chitral, Dera Ismail Khan, Dir Lower, Manshera, Nowshera, Hangu, Haripur, Karak, Kohat, Kohistan, Lakki Marwat, Malakand, Mardan, Peshawar, Shangla, Swabi, Swat, Tank, Upper Dir	24
Balochistan	Gwadar, Jaffarabad, Kech, Killa Abdullah, Killa Saifullah, Lesbela, Mastung, Noshki, Panjgur, Pishin, Quetta, Sibi, Zhob, Ziarat	14
AJK	Bhimber, Hattian, Kotli, Muzaffarabad, Sudhnoti	5
FATA	Bajaur, Khyber, Kurram, Mohmand, North Waziristan, Orakzai, South Waziristan, FR D. I. Khan & FR Tank, FR Lakki & FR Bannu, FR Peshawar & FR Kohat	10
Total		100

ANNEX 1-2.

Plan of Operation (1/3)

	2009					2010												2011												2012					
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Output 1. [Strategic planning] Strategic planning for scaling up DHIS is approved at JCC.																																			
1-1 Analyze the current situation of the DHIS implementation progress and set up target figure, by using available secondary data and conducting baseline survey.																																			
1-2 Review and update the DHIS National Action Plan (NAP)																																			
1-3 Develop an strategic planning for scaling-up DHIS.																																			
1-4 Select districts which have necessary budgets for project activities																																			
1-5 Get approval of the strategic planning for scaling up DHIS including revised NAP at JCC.																																			
Output 2 [Training] PHDs / DHOs staff is adequately trained on the DHIS operation.																																			
2-1 Based on the strategic planning, develop training plans at different levels for different subjects.																																			
2-2 JICA experts modify and debug the DHIS software.																																			
2-3 Install the modified DHIS software in DHOs and PHDs.																																			
2-4 Review and revise the DHIS training materials (*2) to increase user-friendliness, if needed, newly develop.																																			
2-5 Based on the training plans, conduct training programs on data collection (*3). and coordination, monitoring and supervision for the DHIS operation																																			

Plan of Operation (2/3)

	2009					2010												2011												2012					
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
2-6 Based on the training plans, conduct training programs on data entry, processing and analysis.																																			
2-7 Based on the training plans, conduct training programs on data use.																																			
Output 3 [Operation 1: paper-based] The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.																																			
3-1 PHDs discard the HMIS monthly/yearly report forms and distribute the DHIS monthly report forms.																																			
3-2 DHOs monitor the health faculties on: (i) completeness, (ii) precision, and (iii) timeliness of the DHIS reporting.																																			
3-3 PHDs supervise DHOs on (i) completeness, (ii) precision, and (iii) timeliness of the DHIS reporting.																																			
3-4 JICA experts supervise PHDs to conducts activities aforementioned smoothly.																																			
Output 4 [Operation 2: computer-based] The DHIS data are entered into the DHIS software, processed and analyzed at DHOs..																																			
4-1 DHOs conduct the: (i) data entry, (ii) data processing, and (iii) data analysis of the collected DHIS monthly report.																																			
4-2 PHDs conduct the data analysis of the collected DHIS monthly report.																																			
4-3 JICA experts supervise the activities 4-1 and 4-2 through PHDs																																			

Plan of Operation (3/3)

	2009					2010												2011												2012					
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Output 5 [Operation 3: human-based] By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at DHOs.																																			
5-1 PHDs and DHOs conduct the (i) budget preparation for the following fiscal year, (ii) adjustment of resource allocation, and (iii) regular feedback to health facilities, using the results of DHIS monthly reports.																																			
5-2 JICA experts supervise the activities 5-1 through PHDs																																			
Output 6. [Operation 4] The DHIS is adequately coordinated among the stakeholders.																																			
6-1 Strengthen, reorganize or adjust the structure of the DHIS administrative channel form health facilities, DHOs, and PHDs.																																			
6-2 Hold the TAG meetings on regular and irregular basis (e.g. case studies of data use for evidence-based management of health services).																																			
6-3 Hold the DHIS Inter-district meetings at PHD level on regular basis.																																			
6-4 Promote the application of the DHIS among other development partners.																																			

ANNEX2. Evaluation Grid

2-1 Achievement of the Project

Item	Indicator of PDM	Achievement
Output 1 [Strategic planning] Strategic planning for scaling up DHIS is approved at JCC.	1-1 Strategic planning for scaling up DHIS is approved at JCC.	This indicator has been achieved. Strategic Planning for scaling up DHIS was approved by First JCC meeting held on 1st June 2010. After its approval, PDM (Version 1) made on 25 April, 2009 was revised three times as follows. In addition, Project activities have been conducted based on the revised PDM. 1) PDM (Version 2) was approved at Second JCC meeting held on 7th July, 2010 based on the scaling up plan. 2) PDM (Version 3) was approved at Third JCC meeting held on 8th February, 2011 due to the budgetary and time constraints of both JICA experts and the Government of Pakistan. 3) PDM (Version4) was approved at First TAG on 24th January, 2012 due to the shift of C/P, the authorized TAG instead of former JCC and some changes of contents of Outputs and Indicators on PDM (Version 3).
Output 2 [Training] PHDs / DHOs staff is adequately trained on the DHIS operation.	2-1 Revised DHIS software is installed at the DHOs and PHDs. (= 100 %)	This indicator has been achieved. Latest version of DHIS software was installed to DHOs of 100 target districts and PHDs through the software installation workshops held on February (57 DHOs), July (37 DHOs) and October (6DHOs), 2011.
	2-2 DHO trainings complete training programs on: (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %)	This indicator has been achieved. 129 district master trainers and 5,783 health facility staff have been trained DHO trainings by the cascade system of the Project as of May, 2011.
	Note:*3: i.e. how to fill out monthly DHIS report forms and submit them to DHOs *4: i.e. how to enter paper-based data into software, aggregate and/or analyze them *5: i.e. how to use the data for evidence-based management of health services	
	2-3 PHD trainers complete training programs on (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %)	This indicator has been achieved. Total 81 persons have been trained as provincial master trainer (PHD trainers) as of March, 2011. The training contents for 81 persons consisted of DHIS training (data collection, supervision for the implementation of DHIS) for 24 persons, the data entry/processing/analysis training for 21 persons and the data use training for 36 persons. The average scores of pre-test and post-test are in followings. (Full = 10) According to the results of the tests, skills of participants were improved. Total

Item	Indicator of PDM	Achievement
		1) Average score of pre-test: 4.8 2) Average score of post-test: 7.7 3) Difference of pre- and post test: +3.0
Output 3 [Operation 1: paper-based] The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.	3-1 Monthly and yearly report forms of the HMIS are replaced by the DHIS monthly report at the health facilities. (= 100 %)	This indicator has been almost achieved. PHDs reported that DHIS monthly report forms were introduced to all facilities as of January 2012. However, some facilities which were still using old forms were found out during the monitoring survey conducted by the Project. For instance, despite Sindh PHDs reported that 7 districts supported by MNCH received DHIS report forms from MNCH in July 2011, these districts actually received complete set of DHIS report forms in December 2011 and other districts in Sindh province also faced the shortage of DHIS report forms until December 2011. The above matters caused the delay of DHIS activities in these districts. These matters might be caused by the usage of the old forms from a viewpoint of the efficient use of resources nevertheless they had already received those new forms.
	3-2 Compliance rate of DHIS monthly report from health facilities are kept more than 90% at the last 6 months of the Project.	This indicator has been partially achieved. 48 districts out of 100 target districts have been shown more than 90% of compliance rate from the main health hospitals at the last 6 months (November 2011 to April 2012). Major causes of low compliance rate are "shortage of DHIS tools and instrument", "Lack of coordination between DHOs and PPHI", "Disturbance of DHIS activities due to frequent power off", "Polio day", etc.
Output 4 [Operation 2: computer-based] The DHIS data are entered into the DHIS software, processed and analyzed at PHDs and DHOs.	4-1 Tables or charts are created, sorted into files, and are readily available, for more than two key DHIS indicators at the PHDs and DHOs.	This indicator has been achieved. PHDs and DHOs analyzed DHIS data during the use of information training in November and December 2011. All DHOs could make more than 5 tables & charts during the trainings. The Project also confirmed by the monitoring that 8 districts including Hyderabad district, which delayed the start of DHIS activities due to shortage of DHIS report forms, could create the tables & charts using DHIS data.
Output 5 [Operation 3: human-based] By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at PHDs and DHOs.	5-1 Lists of identified items for evidence-based resource allocation are available at the PHDs and DHOs. (= 100 %)	This indicator has been almost achieved. On data use trainings in November 2011, the targeted DHOs made lists of identified items for evidence-based resource allocation based on DHIS data collected by them. The Project confirmed by questionnaire survey that 87 districts, which collected DHIS data more than 3 months in 2011, used resource reallocation.

Item	Indicator of PDM	Achievement
	5-2. Lists of identified items for evidence-based budget planning are available at the PHD and DHOs. (= 100 %)	This indicator has been almost achieved. On data use trainings on November 2011, the targeted DHO made lists of identified items for evidence-based budget planning based on DHIS data collected by them. The Project confirmed by questionnaire survey that 87 districts, which collected DHIS data more than 3 months in 2011, used budget planning.
Output 6 [Operation 4] The DHIS is adequately coordinated among the stakeholders.	6-1 The meetings with development partners and related government organizations are held.	This indicator has been achieved. A lot of meetings were conducted during the Project as follows. 1) Steering committee meeting 1 November 4th 2009 2) JCC meetings 4 June 8th, July 7th 2010 February 8th, March 19th 2011 3) TAG meeting 2 January 24th, June 15th 2012 4) PMC meetings 3 February 10th 2010 February 8th, March 19th 2011 5) Working Group meetings 12 February 3rd, June 24th 2010 July 21st, August 22nd, November 3rd, December 22nd 2011 January 23rd, February 23rd & 24th, March 20th, April, May 28th, June 14th 2012 6) Developing partner meetings 2 Meeting with GIZ, UNFPA, Save the Children
Project Purpose (Prospect) Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan.	1. At least one item of health services budget planning at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs. (= 100%)	This indicator has been almost achieved. At least 87 districts (87 %) used health services budget planning at district level.
	2. At least one item of health services routine operation (resource allocation) at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs. (= 100 %)	This indicator has been almost achieved. At least 87 districts (87 %) used health services resource reallocation district level.
Overall Goal (Prospect) Policy and strategies for health services are developed in an evidence-based manner, through sustainable District Health Information System (DHIS), nationwide in Pakistan.	1. At least one item of the national health strategy/policy at the federal level is supported, underpinned and justified by the DHIS.	After the devolution of Ministry of Health in Pakistan, nobody knows which organization or institution takes responsibility to make national health strategy/policy at the federal level. Therefore it is difficult to prospect Overall Goal at present.

2-2 Process of Project Implementation

Item	Findings
2-1 Progress of Activities	1) Changes of PO(See Annex2-1) Due to the delay of the holdings of Steering Committee (S/C) meeting and Joint Coordinating Committee (JCC) meetings and natural disaster (flood), the previous POs of the Project were changed. 2) Progress of present PO The present PO is conducting on schedule. 3) Accomplishment of each activity Despite of the above mentioned difficulties (delay of the meetings, natural disaster), all activities were conducted and accomplished. 4) Problems on conducting Activities a) Delay of the holdings of the several meetings: (Solution) Well discussions and requests by letters and/or oral were implemented. b) Natural disaster: (Solution) Activities were stopped and then checked the damage of floods. After its confirmation, activities were restarted. c) Indetermination of target districts: (Solution) Activities were conducted the districts which fulfilled conditions such as receiving DHIS forms, etc.. 5) Contribution/hampering factors and coping process [Contribution factors] - Effort of people such as provincial DG health, EDO, coordinators, etc. at provincial and district level - Allocation of budget for DHIS projects even though not enough. [Hampering factors] - Lack of ownership of former C/P on federal level: (Coping) Well discussion - Uncertainty of C/P on federal level after the devolution of Ministry of Health due to decentralization policy: (Coping) Request - Unsafe in some districts: (Coping) Sending Pakistan persons who were employed by the Project.
2-2 Management of the Project	1) Participation for decision-making process by Pakistan side Both sides held several meetings such as S/C meeting, JCC/TAG meetings for approving the conducted activities (past), activities at next period and solving any occurred problems, etc. However some meetings were not held on time. 2) Monitoring The Project conducted periodical monitoring. If any problems were found out, the Project gave some solutions and/or suggestions directly or through national staff. And as provincial support centers were established in Islamabad and Punjab province, etc., staff gave advice/solutions through telephone or E-mails. Working Group meetings were held 12 times during the Project, and progress of activities, faced problems and solutions, etc were discussed at these meetings. 3) Revision of PDM, PO and Indicators PDM was revised 3 times corresponding to change of situation for the Project. Though Indicators were not fixed at the beginning of the Project, those were decided on third year.
2-3 Communication among	1) Within the implementation organization in Pakistan side

stakeholders	Pakistan side has good communication. For example, staff in provinces and districts has conducted DHIS trainings respectively. The provincial/district analytical reports were used for discussion at regular/irregular meetings. 2) Japanese experts and C/P Both side had enough and hard discussion to solve the occurred problems when necessary.
2-4 Collaboration with other donors, etc.	Japanese experts exchanged each information, activities, etc. with WHO, UNICEF, USAID, GIZ, Save the Children for implementation of the Project

2-3 Evaluation by Five Criteria

2-3-1 Relevance: To examine the justifiability or necessity for implementation of the Project

Questions for Evaluation		
Major Item	Minor Item	Findings
1.1 Necessity	(1)Consistency between Project Purpose and Pakistan side	Project Purpose consists with needs of Target Groups such as National Health information Resource Center (NHIRC), National Institute of Health (NIH), Province Health Departments (PHDs), District Health Offices (DHOs) and Health facilities because PHDs and DHOs need to use to decide and manage public health matters based on DHIS data. Project Purpose points the way to Overall Goal. However, as the devolution of Ministry of Health was executed, certain organization/institute is necessary to be nominated for dissemination of sustainable District Health Information System (DHIS) nationwide in Pakistan.
1.2 Priority	(1)Consistency between Overall goal/Project Purpose and National Action Plan	Overall Goal and Project Purpose are consistent with National Action Plan. Some provinces actually are standing on each appropriate stage shown by National Action Plan.
	(2) Consistency between the Project and Japanese ODA policy	The Project is consistent with "Program for the Improvement of Regional Community Health" in "Ensuring Human Security and Human Development" as one of Japan's Assistance Policy for Pakistan.
1.3 Appropriateness as means	(1) Appropriateness of the Project approach	The selected approach of the Project is appropriate. - The target districts are appropriate because districts which satisfied some conditions of the Project such as budget allocation were selected. - The Project used cascade system which TOTs (Training of Trainers) on provincial level were conducted and then they conducted trainings for related persons on district level, and they conducted trainings for BHUs and RHCs.
	(2)Appropriateness of the selected target group	The selected target groups are appropriate. Such target groups actually have central role on public health sector in provinces and districts in Pakistan.
	(3)Superiority of Japanese technical know-how and experiences	THE STUDY ON IMPROVEMENT OF MANAGEMENT INFORMATION SYSTEMS IN HEALTH SECTOR was conducted from 2004 to 2007 in Pakistan by JICA. Furthermore JICA has experience to have conducted Information System Project in other countries.
	(4) Relation between Other donors	The Project had meetings for exchange information of activities, future plans, etc. with other donors such as WHO, UNICEF, UNFPA, Save the Children.
1.4 Other issues	(1)Any change of environment around the Project	Not special.

2-3-2 Effectiveness: To examine the Project effects

Questions for Evaluation		
Major Item	Minor Item	Findings
2.1 Prospect of achievement of Project Purpose	(1) Appropriateness of Project Purpose	Project Purpose is appropriate and almost achieved. The reason of "almost" is described in "2.2 causal relation". Indicator 1: At least one item of health services budget planning at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs. (= 100%) The Project confirmed by questionnaire survey that 87 districts (87 %), which collected DHIS data more than 3 months in 2011, used health services budget planning. Indicator 2: At least one item of health services routine operation (resource allocation) at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs. (= 100 %) The Project confirmed by questionnaire survey that 87 districts (87 %), which collected DHIS data more than 3 months in 2011, used health services routine operation (resource allocation).
2.2 Causal relation between Outputs and Project purpose	(1) Contribution of Outputs to Project Purpose	The Project Purpose has been achieved as results of Outputs. Because Project Purpose consists of 1) Conduct trainings for PHDs/DHOs staff, 2) Collect DHIS data completely, precisely and timely (paper-based), 3) Enter DHIS data into DHIS software, process and analyze (computer-based), 4) Identify resource reallocation and budget based on the results of analysis of DHIS data, 5) Share the information of DHIS with stakeholders. Hence, these Outputs contributed enough to achieve the Project Purpose. Actually, members of the Evaluation team confirmed with provincial DG health, EDO and district coordinators who have already used DHIS data for resource reallocation and budget planning.
	(2)Inhibition to achieve Project Purpose	External factors which caused delay are as follows. [Long way to proceed the activities of the Project] It took time to hold Steering Committee (S/C) meeting and Joint Coordinating Committee (JCC) meetings for approval of the activities of the Project on Pakistan procedure. However these approvals by committee meetings are officially necessary steps for the Project. These delay occurred further delay of implementation of various activities of the Project. [Devolution of Ministry of Health] After the devolution of Ministry of Health due to decentralization policy of the Government of Pakistan, it was not clear which organization/institution was C/P of the Project for few months. [Natural disaster] As heavy floods covered all over Pakistan on July 2010, whole activities of the Project were stopped few months. [Additional Important Assumption] The following Important Assumptions might be necessary from Outputs to Project Purpose or from Activity to Output. 1) C/P is not changed or new C/P is appointed quickly in case C/P was changed. 2) Severe natural disaster doesn't occur.

Efficiency: To examine the Project efficiency

Questions for Evaluation		
Major Item	Minor Item	Findings
3.1Achievement of Outputs	(1)Achievement of Outputs on schedule, any factors of inhibition	All Outputs has been almost achieved even though all Activities were affected by the above mentioned delay. 1) Output 1 [Strategic planning] Strategic planning for scaling up DHIS is approved at JCC. The Output 1 has been achieved. Though Japanese experts started on August 2009, strategic planning for scaling up DHIS was approved at JCC on June 2010 due to procedure of Pakistan side. 2) Output 2 [Training] PHDs / DHOs staff is adequately trained on the DHIS operation. The Output 2 has been achieved. DHIS operation trainings PHDs and /DHOs staff in 4 provinces and 100 districts were conducted on February, July and October 2011 and latest DHIS software were installed. 129 district trainers and 5,783 facility staff at districts and total 81 master trainers in provinces were trained as of March 2012. 3) Output 3 [Operation 1: paper-based] The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs. The Output 3 has been almost achieved. PHD reported to Japanese experts that DHIS forms were consolidated in all districts even though was found out lack of DHIS forms and usage of old forms (HMIS forms). About 50% of 100 targeted districts achieved the indicator 3-2 of this Output. 4) Output 4 [Operation 2: computer-based] The DHIS data are entered into the DHIS software, processed and analyzed at PHD and DHOs. The Output 4 has been achieved. Staff of PHDs and DHOs can enter DHIS data into DHIS software, process and analyze by themselves. 5) Output 5 [Operation 3: human-based] By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at PHD and DHOs. The Output 5 has been almost achieved. In 87 districts of the targeted 100 districts, resource allocation plans and budget plans were made by using the results of analysis of the DHIS data. 6) Output 6 [Operation 4] The DHIS is adequately coordinated among the stakeholders. The Output 6 has been achieved. Since the beginning of the Project, Steering Committee (S/C) meeting, Joint Coordinating Committee (JCC) meetings, Technical Advisory Group (TAG) meetings, Project Management Committee (PMC) meetings and meetings with JICA/donors were held.
	(2)Appropriateness of Indicators' level/contents of each Output	As Output is achieved by result of some Activities, the achievement of some Outputs of the Project have not been resulted enough. Indicators' level and contents of each Output are appropriate except a level of "Indicator 3-2 Compliance rate of DHIS monthly report from health facilities are kept more than 90% at the last 6 months of the Project." These "90 %" and "6 months" might be little high under consideration of Pakistan situation such as delay of start of the actual activities and stop of activities during natural disaster.

Questions for Evaluation		
Major Item	Minor Item	Findings
3.2 Causal relation between Activities and Outputs	(1)Sufficiency of each Activity to achieve each Output	According to adapt to sudden changes in circumstance of the Project, some activities has been modified, and then conducted on new schedule. As mentioned above in "2-2 of 2-3-2 Effectiveness", the following Important Assumptions might be necessary from Activity to Output. 1) C/P is not changed or new C/P is appointed quickly in case C/P was changed. 2) Severe natural disaster doesn't occur.
3.3 Execution of Inputs	(1)Appropriateness of Inputs from viewpoint of the achieved Outputs	1) Japanese side The quality, timing and cost of Inputs by Japanese side were appropriate. As a matter of course, timing and period of dispatch of Japanese experts were changed corresponding to situation of progress of the Project. 2) Pakistan side Not all Inputs form Pakistan were appropriate as follows. - As NHIRC as former C/P had not enough of office room for Japanese expert, Japanese experts have been using office rooms in NIH (present C/P). - NHIRC sometimes acted non-cooperative attitude such as a letter which demanded equipment, installation of unofficial DHIS software into some districts, etc. - Sufficient budget was not executed for cost of hardware procurement and maintenance, cost of training, cost for replacing HMIS report forms with DHIS report forms, etc.
3.4 Factors to influence on efficiency	(1)Efficient usage of local resource	The Project has been effectively using office rooms in NIH and has cooperative with present C/P, i.e. NIH. However, attitude of former C/P, i.e. NHIRC sometimes hampered the activities of the Project.
	(2)Effect of the external factors	All activities contributed to achieve Outputs. However, for instance, delay of some activities during flooding in Pakistan was occurred delay to achieve Outputs.
	(3) Collaboration with other projects	The Project had meetings with other donors for exchange information of the Project, demarcation of activities, target areas, etc.

2-. Impact : To examine the Projects effects including the ripple effects in the long terms

Questions for Evaluation		Findings
Major Item	Minor Item	
4.1 Prospect to achieve Overall Goal	(1) Prospect to achieve Overall Goal	1) Overall Goal is difficult to be realized as a result of the Project after the completion of the Project. 2) Though the target areas of Project Purpose are 100 districts of 5 provinces/FATA/AJK, the target area of Overall Goal is "nationwide in Pakistan". So, there is a huge gap of target areas between Overall Goal and Project Purpose. 3) There are some inhibitions to achieve Overall Goal such as unclear responsible organization/institution for scale-up DHIS nationwide, budget allocation for disseminating DHIS, maintenance of DHIS software, security in some areas. 4) As DHIS contributes decision making, budget making, resource allocation planning, etc, the essential contents of Overall Goal is correct at present. 5) To allocate necessary budget for dissemination of DHIS and to appoint responsible organization/institution for scale-up DHIS as Important Assumptions from Project Purpose to Overall Goal are necessary.
4.2 Ripple Effect	(1) Any Positive and negative effects other than Overall Goal	1) Positive impact: 24 districts, which were excluded because they could not satisfy the Project conditions before January 2012, have conducted DHIS by their own effort. 2) Negative impact is not. 3) Any influence to develop on policy, law, institution, standard, etc. isn't at present. 4) Any social influence on Gender issues, Human Right, Poverty, etc. isn't at present. 5) Any economic influence in Pakistan communities, etc. isn't at present. 6) Any environmental influence isn't at present. 7) Any technical influence isn't at present. 9) Any effect for Pakistan society by the meeting with development partners and related government organization of the Project isn't at present.

2-3-3 Sustainability (prospect): To examine the sustainability after the termination of the JICA cooperation

Questions for Evaluation		Findings
Major Item	Minor Item	
5.1 Continuity of effects	(1) Inhibition and/or contribution factors to the results by implementation of the Project	By the devolution of Ministry of Health in June 2011, it is not clear whether the political support by Pakistan Government is continued or not. This devolution makes serious impact to health sector in Pakistan. 1) Political aspect DHIS will be promoted in each province, specially Punjab province, etc. corresponding to its budget because the results of DHIS data collecting in each province are useful for making health sector budget, health plans, etc. 2) Institutional aspect NIH is one research institute which has Biological Production Division, Drug Control and Traditional Medicine Division, Public Health Laboratories, Nutrition Division, Clinical Research Division. After the devolution, former C/P (NHIRC) was absorbed by NIH and NIH was appointed as C/P of the Project in January 2012. However NIH doesn't acquire the capability to make plans out activities related to District Health Information System (DHIS) and manage activities to make DHIS. After the termination of the Project, it is possible that DHIS software will be developed at provincial level instead of federal level. 3) Financial aspect Necessary budget for DHIS will be secured in each province. 4) Technical aspect In each province, the trainings were conducted not only by the Project but also by province health department and district health offices. Therefore province/district health office have own training institutions which spread and update training method/contents transferred by the Project. The province health department will disseminate the results of the Project to other districts within its province. 5) Ownership Though the ownership of NIH has not been established, the ownership of each province for DHIS seems to have been established. 6) Social/cultural/environmental aspect There isn't any inhibition of continuous effect by the shortage of consideration to Gender Issues, Poverty layer, Socially vulnerable groups, environment, etc.

Annex 3-1: List of Counterparts

Federal Counterpart

Organization	Position	Name	Remarks
NHIRC	Executive Director	Professor Iftikhar Ahmed Khan	Till June 2011
NHIRC	Deputy Director	Mr. Ali Akbar Khan	Till June 2011
NIH	Executive Director	Dr. Birjeer Mazhar Qazi	From May 2012

Provincial Counterpart

Province	Position	Name	Remarks
Punjab	Director General Health Service	Mr. Aslam CH	Till January 2012
Punjab	Director General Health Service	Mr. Zaihd Pevaiz	Till February 2012
Punjab	Director General Health Service	Dr. Nisar Cheema	From February 2012
Punjab	Director Health Service (MIS)	Dr. Anwar Janjua	Till September 2011
Punjab	Director Health Service (MIS)	Dr. Haroon Jahangir	From September 2011
Punjab	Additional Director Provincial MIS Cell	Dr. Khaleeq Ahmed Qureshi	Till March 2012
Sindh	Director General Health Service	Dr. Abdul Sttar Korai	Till July 2010
Sindh	Director General Health Service	Dr. (Capt) Ghulam Sarwar Channa	Till July 2011
Sindh	Director General Health Service	Dr. (Capt) Hafiz-ul-Haque Memon	Till March 2012
Sindh	Director General Health Service	Dr. Feroz Din Memon	After March 2012
Sindh	Provincial Coordinator DHIS	Dr. Younis Asad Sheikh	
Khyber Pakhtunkhwa	Director General Health Service	Dr. Shaarif Ahmad Khan	
Khyber Pakhtunkhwa	Provincial Coordinator DHIS	Dr. Ali Ahmad	Till March 2011
Khyber Pakhtunkhwa	Provincial Coordinator DHIS	Dr. Javed Perveon	From March 2011
Khyber Pakhtunkhwa	Deputy Program Manager DHIS	Dr. Ikram Ullah Khan	
Balochistan	Director General Health Service	Dr. Amanullah Khan	Till April 2011
Balochistan	Director General Health Service	Dr. Masood Nusherwani	From April 2011
Balochistan	Provincial Coordinator DHIS	Dr. Ali Ahmad Baloch	
AJK	Director General, Health Service, AJK	Dr. Muhammad Qurban Mir	
AJK	State Coordinator DHIS, AJ & K	Khawaja Manzoor Ahamed	
FATA	Director Health Service	Dr. Fawad Khan	
FATA	DHIS coordinator	Mr. Niaz Muhammad	
FATA	DHIS coordinator	Dr. Mushtaq Ahmed	
CDA	Director Health	Dr. Hassan Orooj	
Gilgit & Baltistan	Director Health Service	Dr. Ghulam Ali	

Annex 3-2: List of Japanese Experts

Name	Subject	Dispatch period
Mr. Shuji Noguchi	Team Leader	Aug. 7, 2009 - Sep. 8, 2009 Oct. 9, 2009 - Nov. 14, 2009 Feb. 27, 2010 - Mar 9, 2010 Jun. 28, 2010 - Aug. 11, 2010 Aug. 31, 2010 - Sep. 14, 2010 Nov. 26, 2010 - Dec. 25, 2010 Mar. 9, 2011 - Mar. 23, 2011 Jun. 22, 2011 - Jul. 5, 2011 Oct. 10 , 2011 - Nov. 5, 2011 Nov. 21, 2011 - Dec. 17, 2011 Jan. 23, 2012 - Feb. 21, 2012 May 18, 2012 - Jun. 19, 2012 (Planned)
Mr. Shigeru Kobayashi	Deputy Team Leader Monitoring	Oct. 30, 2009 - Dec. 12, 2009 Jan. 20, 2010 - Mar 7, 2010 May. 19, 2010 - Jul. 17, 2010 Oct. 27, 2010 - Dec. 16, 2010 Jan. 19, 2011 - Mar. 5, 2011 Jun. 22, 2011 - Jul. 30, 2011 Sep. 28 , 2011 - Nov. 17, 2011 Jan. 16, 2012 - Mar. 22, 2012 May 16, 2012 - Jun. 19, 2012 (Planned)
Dr. Ahmad Afifi	Deputy Team Leader Monitoring	Aug. 2, 2009 - Sep. 30, 2009 Dec. 25, 2009 - Feb. 1, 2010 Jun. 14, 2010 - Jul. 7, 2010 Jul. 15, 2010 - Aug. 19, 2010 Sep. 1, 2010 - Oct. 28, 2010 Feb. 13, 2011 - Mar. 22, 2011 Jul. 25, 2011 - Sep. 22, 2011 Dec. 16 , 2011 - Jan. 20, 2012 Feb. 13, 2012 - Apr. 12, 2012 Apr. 23, 2012 - Apr. 24, 2012 May 31, 2012 - Jun. 19, 2012 (Planned)
Ms. Chiaki Kido	Data Collection	Aug. 26, 2009 - Sep. 8, 2009 Dec. 9, 2009 - Dec. 22, 2009 Jul. 14, 2010 - Aug. 12, 2010 Dec. 9, 2010 - Dec. 28, 2010 Feb. 13, 2011 - Mar. 22, 2011 Jul. 25, 2011 - Sep. 1, 2011 Jan. 30, 2012 - Mar. 1, 2012 May 23, 2012 - Jun. 19, 2012 (Planned)
Mr. Masahi Akiho	Data Analysis	Aug. 7, 2009 - Sep. 5, 2009 Oct. 9, 2009 - Nov. 18, 2009 Jan. 6, 2010 - Feb. 7, 2010 May. 19, 2010 - Jun. 28, 2010 Jul. 23, 2010 - Sep. 16, 2010 Nov. 8, 2010 - Dec. 16, 2010 Jan. 25, 2011 - Feb. 10, 2011 Jun. 22, 2011 - Jun. 30, 2011 Sep. 12, 2011 - Nov. 12, 2011 Jan. 9, 2012 - Mar. 1, 2012 May 7, 2012 - Jul. 7, 2012 (Planned)
Mr. Hiroshi Abo	Data Use	Aug. 10, 2009 - Aug. 29, 2009 Dec. 18, 2009 - Jan. 16, 2010 Jul. 30, 2010 - Aug. 15, 2010 Aug. 18, 2010 - Sep. 11, 2010 Aug. 10, 2011 - Sep. 1, 2011 Dec. 16, 2011 - Dec. 31, 2011
Mr. Masahi Akiho	Coordination	Feb. 11, 2011 - Mar. 16, 2011 Jul. 1, 2011 - Jul. 30, 2011
Ms. Rie Yamashita	Coordination	Jul. 14, 2010 - Aug. 8, 2010

Annex 3-3: Project Cost

Japanese Side Operational Expenses

(1) Installation cost of DHIS software in PHDs and DHOs

(2) Maintenance cost of DHIS software (August 2009 to June 2012)

(3) Training cost on DHIS trainings for provincial master trainers

(4) Training cost on DHIS data collection, coordination, monitoring and supervision for district master trainers in Khyber Pakhtunkhwa and Balochistan

(5) Training cost on DHIS data entry, processing and analysis and use of DHIS information for district master trainers in all target districts

Japanese Fiscal Year (from April to March)	2009	2010	2011 (until the end of project) [estimated]
JPY	10,472,000	27,124,000	51,018,000
PKR	12,190,920	31,576,251	59,392,317

JFY: Japanese Fiscal Year (from April to March)

1PKR = 0.859 JPY (as of June 2012)

Pakistani Side Operational Expenses

(1) Concerned staff as counterpart personnel

(2) Administrative and operational costs

(3) Cost for hardware procurement and maintenance

(4) Cost for training, except the one to be borne by Japan

(5) Cost for software maintenance from July 2012 onward

(6) Office(s) and facilities such as electricity, gas, water supply necessary for Project activities and operational expenses for utilities

(7) Cost for replacing HMIS report forms with DHIS report forms at health facilities

Pakistani Fiscal Year / Province	2009/10	2010/11	2011/12
Punjab	17,870,000	13,280,000	19,000,000 *1
Sindh	9,670,000	14,434,000	19,481,000 *2
KP*3	41,800,000	24,620,000	24,300,000
Balochistan	15,000,000	12,122,000	20,000,000
AJK*4	5,017,000	4,015,000	
FATA	11,000,000	12,000,000	23,000,000

UNIT: PKR

Note

*1,2 Total expenditure as of April in 2012

*3 Released budget in each year, and expended 60.720,000 PKR from 2009/10 to 11/12.

*4 PC-1 for DHIS was not approved in AJK. Expenditure of AJK in the table is total cost for DHIS & HMIS. No data is available in 2011/12.

Annex 3-4: List of Equipment

No.	Name of Equipment	Nos.
1	Software for Statistics and Analysis	1
2	Computer for Office Use (incluing Display)	8
3	Printer (Black and White)	1
4	Printer (Color)	1
5	Photocopier	4
6	Air Conditioner	5
7	Multimedia Projector	3
8	Generator	3
9	Computer (for Sub-Contracting)	4
10	Printer (for Sub-Contracting)	4

ANNEX4. Results of Indicators in PDM

【Project Purpose】
Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan

Indicator 1:At least one item of health services budget planning at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (= 100%)

Indicator 2:At least one item of health services routine operation (resource allocation) at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (= 100 %)

Both indicators has been almost achieved.

As mentioned in the result of Output 5 in detail, the Project targeted 87 districts out of 100 target districts which collected DHIS data more than 3 months before January 2012 because the preparation of budget plan for next fiscal year started from January 2012 in Pakistan and conducted questionnaire survey in 2012.

According to the result of the survey, the Project confirmed that 87 districts (87 %), which collected DHIS data more than 3 months in 2011, used health services budget planning and /or health services resource reallocation. From such matter, it is presumed that more than 87 districts (87 %) use DHIS data for used health services budget planning and /or health services resource reallocation at present.

Output1 [Strategic planning] Strategic planning for scaling up DHIS is approved at JCC.

Indicator 1-1: Strategic planning for scaling up DHIS is approved at JCC.

This indicator has been achieved.

Strategic Planning for scaling up DHIS was approved by First JCC meeting held on 1st June 2010.

It was originally agreed that all necessary cost for the project activities such as printing of DHIS tools & instruments, DHIS trainings for PHD and DHO officials and health facility staff, procurement of computer hardware were borne by Pakistan side. As the result of baseline survey and interview survey to each PHD, it was found that all PHDs except Punjab did not have these budgets. Therefore, the project target areas were changed, and were selected only to the districts which ensured the budget for the project activities. However, it was confirmed that all the provinces were expanding DHIS in their districts in line with the "National Action Plan (NAP)" for the Improvement of Health Information System in Pakistan, although level of DHIS activities varied among the provinces. Therefore, the Project decided to implement DHIS activities in line with NAP .

After those approval, PDM (Version 1) made on 25th April, 2009 was revised three times as follows. Project activities have been conducted based on the revised PDM.

1) PDM (Version 2) was approved at Second JCC meeting held on 7th July, 2010 based on the scaling up plan.
2) PDM (Version 3) was approved at Third JCC meeting held on 8th February, 2011 due to the budgetary and time constraints of both JICA/JICA experts and the Government of Pakistan.
3) PDM (Version4) was approved at First TAG (Technical Advisory Group) on 24th January, 2012 due to the shift of C/P, authorization for TAG instead of former JCC and some changes of contents of Outputs and Indicators on PDM (Version 3).

Output 2 [Training] PHDs / DHOs staff is adequately trained on the DHIS operation.

Indicator 2-1: Revised DHIS software is installed at the DHOs and PHDs. (= 100 %)

This indicator has been achieved.

Latest version of DHIS software was installed to 100 DHOs in the 100 target districts and PHDs through the software installation workshops held in February (57 DHOs), July (37 DHOs) and October (6DHOs), 2011.

In addition, 100 districts finally were selected as target districts during the first TAG meeting in January 2012 as below.

Province	Name of Target Districts	No
Punjab	Attock, Bahawalnagar, Bahawalpur, Bhakkar, Chakwal, Chiniot, Dera Ghazi Khan, Faisalabad, Gujranwala, Gujrat, Hafizabad, Jhang, Jhelum, Kasur, Khanewal, Khushab, Lahore, Layyah, Lodhran, Mandi Bahauddin, Mianwali, Multan, Muzaffargarh, Narowal, Nankana Sahib, Okara, Pakpattan, Rahim Yar Khan, Rajanpur, Rawalpindi, Sahiwal, Sargodha, Sheikhupura, Sialkot, Toba Tek Singh, Vehari	36
Sindh	Dadu, Hyderabad, Khairpur, Mattiari, Mirpurkhas, N.S. Feroze, Sanghar, Sukkur, T. Allahyar, T.M. Khan, Thatta	11
Khyber Pakhtunkhwa	Abbotabad, Bannu, Batagram, Buner, Charsadda, Chitral, Dera Ismail Khan, Dir Lower, Manshera, Nowshera, Hangu, Haripur, Karak, Kohat, Kohistan, Lakki Marwat, Malakand, Mardan, Peshawar, Shangla, Swabi, Swat, Tank, Upper Dir	24
Balochistan	Gwadar, Jaffarabad, Kech, Killa Abdullah, Killa Saifullah, Lesbela, Mastung, Noshki, Panjgur, Pishin, Quetta, Sibi, Zhob, Ziarat	14
AJK	Bhimber, Hattian, Kotli, Muzaffarabad, Sudhnoti	5
FATA	Bajaur, Khyber, Kurram, Mohmand, North Waziristan, Orakzai, South Waziristan, FR D. I. Khan & FR Tank, FR Lakki & FR Bannu, FR Peshawar & FR Kohat	10
Total		100

Indicator 2-2: DHO trainings complete training programs on: (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %)

This indicator has been achieved.

DHIS software was improved and installed by the Project to all PHDs and DHOs in the target districts. As the result, debugged DHIS software has been running in the 8 PHDs (including CDA and ITC) and DHOs in 100 target districts.

Manuals for training on use of DHIS information was revised during the training on use of information at Punjab in August 2010, and this revision was approved by representatives of PHDs during the Working Group meeting in December 2011. Manual on DHIS software (data entry, processing and analysis) was up-dated based on the result of DHIS software maintenance, and the Project submitted "DHIS Software Manual" to the Pakistan side through second TAG meeting.

129 district master trainers and 5,783 health facility staff were trained as of March, 2011 by the cascade system of the Project.

In spite of non-existence of federal level counterpart of Pakistan side after the devolution of Ministry of Health, the Project continued the following trainings based on the agreement with DG Health of each province.

Causes	Periods	Target (No. of participants)	Note
Training on data collection, monitoring and instruction	July 2010	Provincial Master Trainers excluding Punjab (28)	Officials from Punjab assigned as trainers
	August 2010	12 DHOs from KP (48 master trainers) and 13 DHOs (39) from Balochistan	Trainings in other districts were done by each PHD
Training on data entry, processing and analysis	February 2011 July 2011 October 2011 March 2012	Master trainers and statistical officials of PHDs and DHOs (21 from PHDs and 237 from DHOs)	Project conducted training for all districts. Training for each DHO office was conducted in Nov. 2011 by sub-contractor. Training for CDA was conducted in March 2012.
	From Nov. 2011	Provincial coordinators DHIS	Project conducted OJT through the study on countermeasures against problems raised in the software maintenance
	December 2011 to January 2012	Staffs in DHOs	Training conducted using data collected by each DHO.
Training on Use of Information	August 2010	Officials from PHD Punjab and DHOs in Punjab (9)	Manual was revised.
	August 2011	Provincial master trainers (36)	
	November 2011 April 2012	Decision makers in DHOs (101)	Training with use of DHIS data collected at each DHO

Indicator 2-3: PHD trainers complete training programs on (i) data collection (*3), (ii) data entry/processing/analysis (*4), data use (*5), and (iv) other subjects. (= 100 %)

This indicator has been achieved.

Total 81 persons have been trained as provincial master trainer (PHD trainers) as of March, 2011. The training contents for 81 persons consist of DHIS training (data collection, supervision for the implementation of DHIS) for 24 persons, the data entry/processing/analysis training for 21 persons and the data use training for 36 persons.

The average scores of pre-test and post-test are in followings. (Full = 10) According to the results of the tests, skills of participants were improved.

	Total
1) Average score of pre-test	4.8
2) Average score of post-test	7.7
3) Difference of pre- and post test	+3.0

Output 3 [Operation 1: paper-based] The DHIS data are collected in a complete, precise and timely manner from health facilities to DHOs.

Indicator 3-1: Monthly and yearly report forms of the HMIS are replaced by the DHIS monthly report at the health facilities. (= 100 %)

This indicator has been almost achieved.

PHDs reported that DHIS monthly report forms were introduced to all facilities as of January 2012. However, some facilities which were still using old forms were found during the monitoring survey conducted by the Project. For instance, despite Sindh PHDs reported that 7 districts supported by MNCH received DHIS report forms from MNCH in July 2011, these districts actually received complete set of DHIS report forms in December 2011 and other districts in Sindh also faced the shortage of DHIS report forms until December 2011. The above matters were caused by the delay of DHIS activities in these districts. It was also found during the monitoring survey January 2012 that some facilities are still using HMIS format in Khyber Pakhtunkhwa. This matter might be caused by the usage of the old forms from a viewpoint of the efficient use of resources nevertheless they had already received those new forms.

For the above reasons, the replacement of the DHIS monthly report forms was delayed in some target districts and its matter affected on the achievement of Project Purpose.

Indicator 3-2: Compliance rate of DHIS monthly report from health facilities are kept more than

90% at the last 6 months of the project

This indicator has been partially achieved.

39 districts out of 100 target districts have been shown more than 90% of compliance rate at the last 6 months (November 2011 to April 2012). In this case, compliance rate was calculated by using the number of report submitted on time. In case of the delayed submission, DHOs instructed health facilities, which did not submit the report on time, to improve the activities. If compliance rate is calculated including the number of reports submitted behind the schedule, 45 districts kept more than 90% of compliance rate in last six months and 57 districts kept more than 90% in last four months as below.

- Number of Districts kept more than 90% of Compliance Rate in last six months -

	Not including Report submitted behind the schedule		Including Report submitted behind the schedule	
	Last 6 months	Last 4 months	Last 6 months	Last 4 months
Punjab	33	34	33	34
Sindh	0	2	1	3
Khyber Pakhtunkhwa	4	10	5	10
Blochistan	1	2	3	3
AJK	0	4	1	4
FATA	1	2	2	3
Total district	39	54	45	57

In case of compliance rate from the main health facilities, 48 districts out of 100 target districts have been shown more than 90% of compliance rate at the last 6 months (November 2011 to April 2012) as below.

- Number of Districts kept more than 90% of Compliance Rate from main health facilities -

Provinces	In last 6 months	In last 4 months
Punjab	33	34
Sindh	1	4
Khyber Pakhtunkhwa	6	11
Blochistan	2	5
AJK	2	4
FATA	4	5
Total district	48	63

Regarding the monthly compliance rate from main health facilities, there were 65 districts showed more than 90% in November 2011. By the efforts of persons in charge, the compliance rate was improved and more than 75 districts showed more than 90% of compliance rate during January to April 2012.

- Number of Districts kept more than 90% of Compliance Rate from main health facilities -

Province	No. of target districts	2011		2012			
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Punjab	36	35	33	34	34	35	35
Sindh	11	3	4	6	5	8	7
Khyber Pakhtunkhwa	24	11	15	19	18	16	14
Blochistan	14	6	7	8	6	4	5
AJK	5	3	3	5	4	4	5
FATA	10	7	8	9	9	9	9
Total district	100	65	70	81	76	76	75

Major causes of low compliance rate are "shortage of DHIS tools and instrument", "Lack of coordination between DHOs and PPHI", "Disturbance of DHIS activities due to frequent power off", "Polio day", etc.

Output 4 [Operation 2: computer-based] The DHIS data are entered into the DHIS software, processed and analyzed at PHDs and DHOs.

Indicator 4-1: Tables or charts are created, sorted into files, and are readily available, for more than two key DHIS indicators at the PHDs and DHOs.

This indicator has been achieved.

The Project trained 21 PHD staff on the data entry, processing and analysis. All participants acquired operation methods of DHIS software including table creation.

The Project trained 237 DHO staff on the data entry, processing and analysis. All participants acquired operation methods of DHIS software including table creation.

All 95 DHO staff, who received training on data use, analyzed DHIS data during the use of information training in November and December 2011. All DHOs could make more than 5 tables & charts during the trainings. The Project also confirmed by the monitoring that 8 districts including Hyderabad district, which delayed the start of DHIS activities due to shortage of DHIS report forms, could create the tables & charts by using DHIS data.

Output 5 [Operation 3: human-based] By using the results of analysis of the DHIS data, the items for resource reallocation and budgeting are identified at PHDs and DHOs.

Indicator 5-1: Lists of identified items for evidence-based resource allocation are available at the PHDs and DHOs. (= 100 %)

Indicator 5-2: Lists of identified items for evidence-based budget planning are available at the PHDs and DHOs. (= 100 %)

Both indicators have been almost achieved.

The target of training for the Output 5 was all DHIS target districts in total 100. However 91 districts actually could participate in this training because among the remaining 9 districts 5 districts in Punjab province completed use of information training prior to this training, 3 districts in KPK and 1 district in FATA did not send participants due to climatic or security reasons. (After this training, KPK implemented additional training for the above 3 district. FATA had not implemented additional training.) During data use trainings on November & December 2011, participants of DHOs prepared lists of identified items for evidence-based resource allocation based on DHIS data collected by them at each DHO. In the end, 89 districts completed this training.

The Project confirmed usage of DHIS information in DHOs through the questionnaire survey in 2012 after completion of the training on use of DHIS information. In this survey, 87 districts out of 100 target districts which collected DHIS data more than 3 months before January 2012 were targeted since preparation of budget plan for next fiscal year generally started from January 2012 in Pakistan.

- Number of Districts Surveyed by questionnaire -

Province	No. of District
Punjab	36
Sindh	3
Khyber Pakhtunkhwa	24
Balochistan	12
AJK	5
FATA	7
Total	87

According to the following result of the questionnaire survey, 50 districts out of 87 utilized DHIS data for preparation of budget plan in next fiscal year, 50 districts utilized the data for preparation of

policy / strategy making, and 67 districts utilized the data for resource allocation (medicines and facility staff).

That is, the Project confirmed by questionnaire survey that 87 districts (87 %), which collected DHIS data more than 3 months in 2011, used health services budget planning and /or health services resource reallocation.

- Usage of DHIS Information -

Province	Preparation of annual budget	Drawing health policy / strategies	Resource allocation
Punjab	20	21	23
Sindh	3	3	2
Khyber Pakhtunkhwa	9	12	20
Balochistan	11	11	11
AJK	1	2	4
FATA	6	1	7
Total district	50	50	67

Output 6 [Operation 4] The DHIS is adequately coordinated among the stakeholders.

Indicator 6-1: The meetings with development partners and related government organizations are held.

This indicator has been achieved.

Lot of meetings as of June 2012 was conducted during the Project as follows.

1) Steering committee meeting	1	November 4th 2009
2) JCC meetings	4	June 8th , July 7th 2010 February 8th , March 19th 2011
3) TAG meeting	2	January 24th , June 15th 2012
4) PMC meetings	3	February 10th 2010 February 8th , March 19th 2011
5) Working Group meetings	12	February 3rd , June 24th 2010 July 21st , August 22nd , November 3rd , December 22nd 2011 January 23rd , February 23rd & 24th , March 20th April 24th , May 28th , June 14th 2012
6) Developing partner meetings	2	Meeting with GIZ, UNFPA, Save the Children

ANNEX5. List of the Interviewee

[Pakistan Side]

Executive Director, NIH	Dr. BILJEES MAZHAR KAZI
Principal Scientific Officer (Epidemiology), NIH	Dr. RANA MUHAMMAND SAFDAR
EDO Haripur District KPK Province	Dr. Syed Mazhar Ali Shah
Coordinator HMIS/DHIS Cell Haripur District KPK Province	Dr. Bilal Khan
DHIS Service Computer Programme Officer Punjab Provincial Health Department	Dr. Farool Ahmad
Director General Health Services Punjab	Dr. Nisar Ahmad Cheema
EDO Sheikhupura District Punjab Province	Dr. Zafar Iqbal Khokhar
DHIS Coordinator Kasur District Punjab Province	Ms. Amania Mir
Director General Health AJK	Dr. Muhammad Qurban Mir
Head Service Delivery Component, Health Sector Support, GIZ	Dr. Lundy Keo
Deputy Country Director Program Implementation, Save the Children	Dr. Ammanullah Khan
State Coordinator DHIS, AJK	Mr.Khawaja Monzoor Ahmed
Deputy Program Manager, KP	Dr. Ikram Ullah Khan
Director, Directorate of Health Services, CDA	Dr.Hasan Orooj

[Japanese Side]

Team Leader	Mr. Shuji Noguchi
Deputy Team Leader, DHIS project	Mr. Shigeru Kobayashi
Deputy Team Leader, Monitoring	Dr. Ahmad Afifi
Data Collection	MS. Chiaki kido
IT Specialist	Mr. Masashi Akiho

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JICA