インドネシア共和国
家畜衛生ラボ能力向上プロジェクト
中間レビュー調査報告書

平成 25 年 8 月
（2013 年）

独立行政法人国際協力機構
農村開発部

農 村
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序　　文

独立行政法人国際協力機構は、インドネシア共和国（以下、「インドネシア」と記す）関係機関との討議議事録（R/D）に基づき、技術協力プロジェクト「家畜衛生ラボ能力向上プロジェクト」を2011年7月から4年間の予定で実施しています。

このたび、プロジェクトが協力期間の中間地点に至ったことから、プロジェクトの進捗状況や実績を確認したうえで目標及び成果達成に向けた貢献／阻害要因を分析すること、評価5項目（妥当性、有効性、効率性、インパクト及び持続性）の観点から日本側・インドネシア側双方で総合的にプロジェクトを評価すること、及び今後の対策について提言を行うことを目的として、2013年5月9日から5月29日まで中間レビュー調査団を現地に派遣しました。

現地では、インドネシア側の団員と合同評価調査団を形成し、評価結果を合同評価報告書に取りまとめ、プロジェクト合同調整委員会に提出するとともに、インドネシア側の政府関係者と今後の方向性について協議し、協議議事録（M/M）に署名を取り交わしました。本報告書は、その結果を取りまとめたものであり、今後のプロジェクトの実施にあたり広く活用されることを願うものです。

調査にご協力とご支援をいただいた関係各位に対し、心より感謝申し上げます。

平成25年8月

独立行政法人国際協力機構
農村開発部長　熊代　輝義

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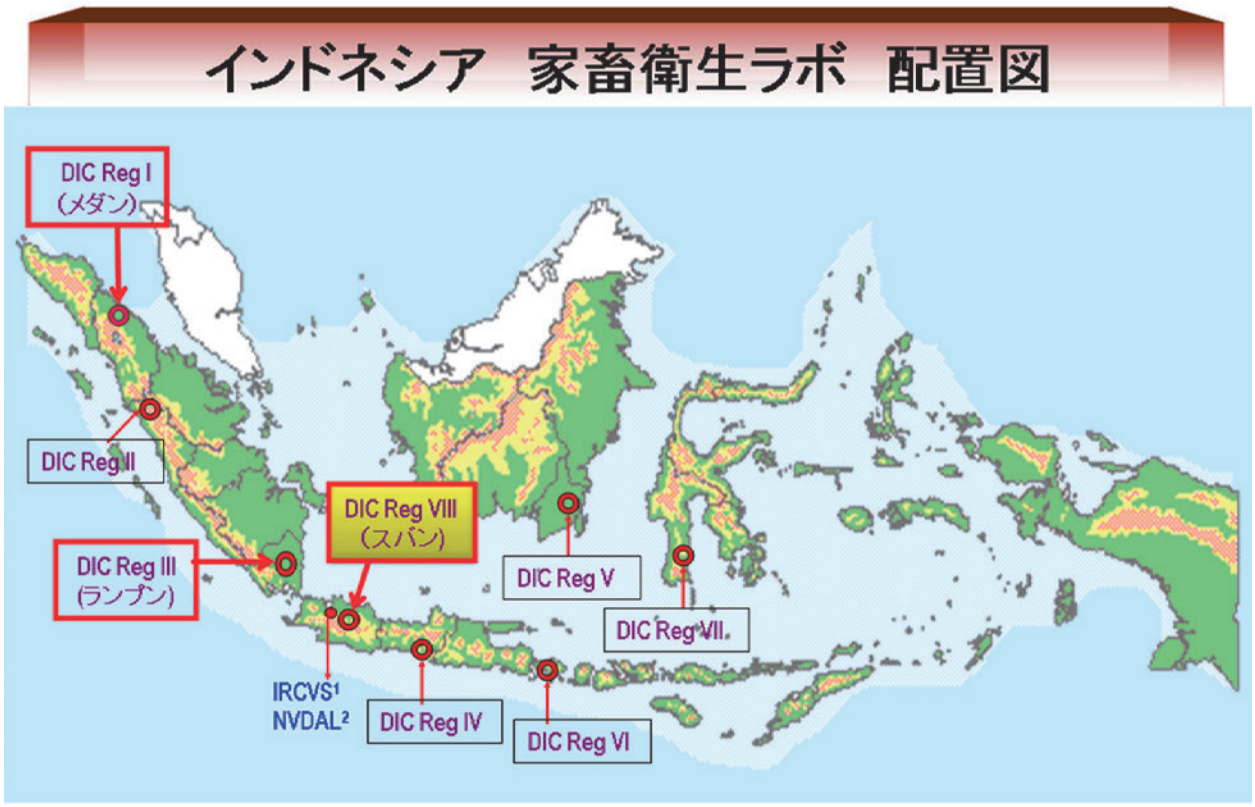
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略　語　表

略語	英語名称	和名・意味
AAHL	Australian Animal Health Laboratory	オーストラリア動物衛生研究所
AI	Avian Influenza	鳥インフルエンザ
ASEAN	Association of Southeast Asian Nations	東南アジア諸国連合
AusAID	Australian Agency for International Development	オーストラリア国際開発庁
BALIVET	Research Institute for Veterinary	家畜衛生研究所
BSL	Bio Safety Level	バイオセーフティレベル
CFT	Complement Fixation Test	補体結合反応法
C/P	Counterpart	カウンターパート
DAH	Directorate of Animal Health	動物衛生局（畜産・動物衛生総局）
DGLAHS	Directorate General of Livestock & Animal Health Services	畜産・動物衛生総局（農業省）
DIC	Disease Investigation Center	家畜疾病診断センター
DINAS	Provincial/District Office	州・県政府事務所
ECTAD	Emerging Center for Transboundary Animal Diseases	越境性動物疾病のための緊急事態対策本部
ELISA	Enzyme-Linked Immunosorbent Assay	酵素免疫吸着測定法
FAO	Food and Agriculture Organization of the United Nations	国連食糧農業機関
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	ドイツ国際協力公社
HPAI	High Pathogenic Avian Influenza	高病原性鳥インフルエンザ
HPLC	High Performance Liquid Chromatograph	高速液体クロマトグラフ
ILRI	International Livestock Research Institute	国際家畜研究所
IRCVS	Indonesian Research Centre for Veterinary Science	インドネシア獣医学研究所
JCC	Joint Coordination Committee	合同調整委員会
JICA	Japan International Cooperation Agency	独立行政法人国際協力機構
KfW	Kreditanstalt für Wiederaufbau	ドイツ復興金融公庫
MM	Man-Month	人月
M/M	Minutes of Meeting	ミニッツ（協議議事録）
ND	Newcastle Disease	ニューカッスル病
NIAH	National Institute of Animal Health	動物衛生研究所（日本）

NVDAL	National Veterinary Drug Assay Laboratory	動物医薬品検査所
ODA	Official Development Assistance	政府開発援助
OIE	World Organization for Animal Health	国際獣疫事務局
OJT	On-the-Job Training	オンザジョブ・トレーニング
PDM	Project Design Matrix	プロジェクト・デザイン・マトリックス
PDSR	Participatory Diseases Surveillance and Response Program	参加型疾病調査対策プログラム
PO	Plan of Operation	活動計画表
RBPT	Rose Bengal Plate Test	ローズベンガル平板凝集反応
SOP	Standard Operation Procedure	標準作業手順
SPF	Specific Pathogen-Free	特定疾患不在
USAID	United States Agency for International Development	米国国際協力庁
WHO	World Health Organization	世界保健機構

評価調査結果要約表

１．案件の概要		
国名：インドネシア共和国		案件名：家畜衛生ラボ能力向上プロジェクト
分野：農業開発・農村開発 - 農業政策・制度		援助形態：技術協力プロジェクト
所轄部署：農村開発部水田地帯第一課		協力金額（評価時点）：1.2 億円
協力期間	2011 年 7 月 17 日 ～ 2015 年 7 月 16 日（4 年間）	先方関係機関： 【実施機関】農業省 畜産・動物衛生総局（DGLAHS） 動物衛生局（DAH） 【C/P 機関】スバン家畜疾病診断センター（スバン DIC）
		日本側協力機関：農林水産省
		他の関連協力：

１－１　協力の背景と概要

インドネシア共和国（以下、「イ国」と記す）は、畜産業の発展のため長年家畜疾病対策に取り組んでいるが、近年、社会経済的な損失及び人畜共通被害軽減のために、これらの疾病発生に係る早期の対応、迅速な情報伝達が必要とされている。イ国では家畜疾病対策のために、家畜疾病診断センター（DIC）が、農業省畜産・動物衛生総局（DGLAHS）の下、全国に 7 カ所設立されていた（2008 年当時）。これら DIC は A タイプ・ラボと位置づけられ、それぞれが数州を管轄し、各州及び各県レベルには B タイプ及び C タイプのラボが配置されている。しかし、地方分権化の影響もあり、これらの 3 タイプのラボ間での連携体制は弱く、全国的に DIC 管轄下の家畜疾病管理体制が確立されていないという問題がある。

わが国は 2009 年に無償資金協力プロジェクト「鳥インフルエンザ等重要家畜疾病診断施設整備計画」により、スバンに DIC 施設を新設し、併せて既存のメダン DIC 及びランプン DIC 施設の一部改修支援を行った。スバン DIC は、首都ジャカルタから約 100km 東に位置し、イ国内で飼養される鶏の約 60%が集中し、家畜疾病対策上、極めて重要な地域であるジャカルタ州、西ジャワ州、バンテン州を管轄している。新設されたスバン DIC には 47 名のスタッフ（うち技術スタッフは、獣医師 21 名、獣医技術者 16 名）が配置されたが、その多くは実務経験に乏しく、診断技術も十分でない者が多い。こうした背景の下、イ国は、スバン DIC の家畜疾病診断能力向上、並びに、地方政府と連携した家畜疾病管理体制構築につながるスバン DIC の組織体制強化を目的とした技術協力プロジェクトの実施を、わが国に要請した。これを受け、独立行政法人国際協力機構（JICA）は、2011 年 7 月から 2015 年 7 月までの 4 年間の予定で「家畜衛生ラボ能力向上プロジェクト（以下、「プロジェクト」と記す）を開始した。今般、プロジェクト期間の中間地点を迎えたため、プロジェクトの進捗や実績の評価を行い、プロジェクトの残り期間の課題を分析し、対策について提言を行うべく、中間レビューの調査団を派遣することとなった。

１－２　協力内容

本プロジェクトは、イ国に新設されたスバン DIC の能力強化を図り、スバン DIC が管轄する 3 州の家畜疾病対策の強化をめざすものである。

（1）プロジェクトサイト
スバン家畜疾病診断センター（スバン DIC）

（2）上位目標
西ジャワ地域（スバン DIC 管轄地域）の家畜疾病対策が強化される。

（3）プロジェクト目標
スバン DIC の家畜疾病診断サービスの質・量が向上する。

（4）成果
1．スバン DIC スタッフが基本的かつ体系的な家畜疾病診断技術を習得する。
2．スバン DIC スタッフの、顧客の立場に立った検体診断サービス（パッシブ・サーベイランス）に係る実施能力が強化される。
3．スバン DIC スタッフのパイロットサイトにおける、疾病調査及び疾病対策技術支援（アクティブ・サーベイランス）の実施能力が強化される。
4．スバン DIC スタッフが、管轄地域内の獣医技術者・獣医師・農家に必要な家畜衛生に係る情報提供（ニューズレター、巡回意見交換など）、啓発活動、技術支援活動を継続的に実施する。

（5）投入（2013 年 4 月末現在）
＜日本側＞
・長期専門家：3 名、63 MM（①チーフアドバイザー／家畜衛生管理 21 MM、②業務調整／家畜衛生情報 21 MM、③獣医診断技術／疫学 21 MM）
・短期専門家：延べ 8 名 16.5 MM（病理診断技術、獣医疫学、寄生虫症診断、獣医公衆衛生）
・資機材供与：合計 1,500 万円
・ローカルコスト負担：合計 1,400 万円
・カウンターパート（C/P）本邦研修：9 名、 第三国研修（マレーシア、タイ）：3 名
＜イ国側＞
・C/P 配置：延べ 52 名
・研修・ワークショップローカル講師：延べ 13 名
・ローカルコスト：スバン DIC 予算 2011 年～ 2012 年合計 235 億ルピア支出
・施設・設備：スバン DIC 施設・専門家執務室の提供、研修参加者用宿舎等の増設

2．評価調査団の概要

＜日本側＞

調査者	分　野	氏　名	所　属
	団長／総括	鍋屋　史朗	JICA 農村開発部専任参事役
	家畜疾病診断	中尾　哲也	農林水産省動物検疫所精密検査部微生物検査課長
	獣医疫学	山本　健久	動物衛生研究所ウイルス・疫学研究領域主任研究員
	計画管理	山根　誠	JICA 農村開発部水田地帯第一課企画役
	評価分析	髙橋　佳子	有限会社 Y's コンサルティングオフィス

＜イ国側＞			
	団長	Mr. M. Farid	DGLAHS、JICA マネジメントユニットメンバー
	団員	Ms. Nilma Lubis	DGLAHS 動物衛生局（DAH）サーベイランス課 シニア獣医オフィサー
	団員	Ms. Megawaty Iskandar	DGLAHS 計画局 国際協力・広報課 獣医オフィサー
	団員	Mr. Dhony Kartika Nugroho	DGLAHS / DAH サーベイランス課 獣医オフィサー
調査期間	2013 年 5 月 9 日～ 2013 年 5 月 29 日		評価種類：中間レビュー

３．評価結果の概要

３－１　実績の確認

（１）成果の達成度

１）成果１

「プロジェクト技術到達目標シート」(以下､「シート」と記す) に書かれた診断技術・サービスの技術移転は、ほぼ計画どおり完了していることが確認された（指標）が、専門家によれば、C/P の診断技術はまだ習熟途上であり、各ラボともに今後も疾病診断の経験を積むことが必要であるとされている。プロジェクト開始後のベースライン調査（活動 1-1）の結果を基に、各ラボで技術移転が必要な診断技術／サービス項目を C/P と専門家で検討・作成し(活動 1-2)、目標と達成期日をシートに明記した(活動 1-3)。「講師リソースリスト」も研修等で活用されている (活動 1-4)。また、習熟度試験 (Proficiency tests) は、これまでに 2 つのラボ（ウイルス学、バイオテクノロジー）で国際獣疫事務局（OIE）認証機関のオーストラリア家畜衛生ラボ（AAHL）及び他の DIC で受けている（活動 1-6)。

２）成果２

成果 1 で既述のベースライン調査により、パッシブ・サーベイランスのサンプルフローの改善点が調査された。策定された新しいフローは継続して改善されている。現在、検査ごとの必要日数が決定され一覧表が定められたところである。指標 2-1 については未達成であるが、指標の Comprehensive Diagnostic Judgment（総合的判断）について、C/P 側は現状の体制〔技術部長及び同部長の不在時に対応する 3 名 (所長、情報部長、事務局長)〕で実施しているとの認識であるが、専門家チーム側は、技術的に「総合的判断」はできていないという認識である。今後プロジェクト活動の中で、C/P と専門家が「総合的判断」の認識を共有したうえで、「プロジェクトによる認定」方法も検討し、スバン DIC に必要な技術移転について詳細を計画する必要がある。

３）成果３

スバン DIC スタッフのアクティブ・サーベイランスは、短期専門家（獣医疫学）に指導された新しい枠組みに従い、管轄地域内 3 州で選ばれたパイロットサイトにおいて、2012 年 4 月から順次実施されてきている。西ジャワ州では牛ブルセラ病、バンテン州では水牛ブルセラ病について実施中、ジャカルタ特別州は酪農コロニーでのブルセラ病と固体識別用マイクロチップの取り付けを計画中である。バンテン州では、ベースライン調査に加え、疫学ラボが中心となり、州 / 県 DINAS 畜産局、B/C ラボ獣医技術者、サイトの獣医師等関係者が参加するワークショップを開催し、対象県の実施能力（予算、人員）を把握したうえで、バンテン州が 5 県、スバン DIC が 3 県を分担することを決定している。また、事前のサイト関係者への技術指導も計画・実施されている。したがって、

スバン DIC では、疫学ラボを中心に、実施計画策定段階から全スタッフが参加するサーベイランスの新しいフローが確立されつつある。

4）成果４

スバン DIC スタッフが管轄地域内の獣医技術者・獣医師・農家などに対して実施する情報提供、啓発活動、技術支援活動としては、①家畜疾病啓発パンフレット印刷・配布、② B/C ラボワーカーの短期専門家セミナー／研修への招待、③アクティブ・サーベイランスのためのスポット的技術研修が実施され、④ニューズレター（指標 4-1）に代わりスバン DIC のウェブサイトを立ち上げた。ウェブサイトは農家のアクセスまで考慮されているとはいえず、フィールドの獣医師らとの検討が必要である。また、プロジェクト活動計画（PO、以下「計画書」）では年間計画を策定し活動を実施することとなっているが、現在まで年間計画は策定されていないことから（指標 4-2）、「計画された活動の実施率が 90％以上となる」（指標 4-3）について実施率の算出ができず、達成はされていない。

（２）プロジェクト目標（スバン DIC の家畜疾病診断サービスの質・量が向上する。）の達成度

指標 1 の家畜疾病診断数・診断疾病の種類は、2012 年度で 47,466 件・23 疾病となり、目標値の 35,000 件・16 疾病をそれぞれ上回った。指標２、３及び４に関連する成果は発現途上である。なお、指標４については、中間レビュー調査で訪問した州 DINAS 畜産局及び B ラボからはスバン DIC の診断技術・研修・セミナーの内容は徐々に向上していると評価された。また、スバン DIC が毎年作成・配布している「疾病マップ」は大変役に立っているとの意見も聞かれた。一方、スバン DIC の診断技術サービスの向上については、いまだ懐疑的な意見もあった（ジャカルタ特別州 DINAS、ジャカルタ特別州 B ラボ及び西ジャワ州 DINAS でのインタビュー結果）。プロジェクトの進捗状況からすれば、顧客が実感するところまでサービスが向上していないのは当然ともいえるが、今後計画どおりスバン DIC のサービス向上によって、顧客のこのような見方を変えることが期待される。

（３）実施プロセスの検証

プロジェクトの実施プロセスにおいては、主に以下のような状況が確認された。

①　プロジェクトで育成した C/P の人事異動

スバン DIC では、7 カ月の本邦研修から帰国した C/P 2 名を日本で習得した技術に合致したラボへ配属させ、C/P のモチベーションを高めた。一方、本邦研修を受講したラボの C/P の総務部門、外部への異動も 3 名あった。「プロジェクトで育成した人材が異動しない」は、プロジェクト目標達成に必要なプロジェクト・デザイン・マトリックス（PDM）の外部条件として設定されている。

②　「細胞培養」管理担当 C/P の未配置

これまで指導された C/P の積極的な関与が継続せずに、長期専門家が主に管理を担当している。スバン DIC 所長へのインタビューで、血清学ラボの C/P が任命されたことを確認したが、彼もまたバイオセーフティラボの重要な業務を担っている人物である。

③　イ国側による施設・設備の増設

日本の無償資金協力によって供与されたスバン DIC の施設と機材は、有効に活用され、また研修参加者用宿舎等が、イ国側予算によって増設されている。

④　短期専門家派遣元と C/P 研修受入れ先

8 名の日本人短期専門家のうち 7 名は日本の動物衛生研究所（NIAH）からが派遣されている。NIAH はインドネシア人 C/P の研修受入れ先ともなっており、このような体制

が一貫したC/Pの人材育成に貢献している。

⑤　発育鶏卵の供給不足

スバンDIC内で供給されてきた発育鶏卵が、種鶏の切り替えの遅れによって2012年11月頃より極度に供給不足の状況となった。中間レビュー時点のインタビューでは、申請していた予算が承認され、2013年5月から鶏舎の増設工事が開始され、種鶏も購入予定である。当面の検査については、SAN（Specific Antibody Negative）鶏卵購入による対応が決定されている。

３－２　評価結果の要約

５項目による評価結果は以下のとおり。評価結果の程度は、高い、やや高い、中、やや低い、低い、の5段階となっている。

（１）妥当性

プロジェクト実施の妥当性は、以下の点から現時点でも「高い」。

・プロジェクト目標及び上位目標と、ターゲットグループ（スバンDICのスタッフ）及び管轄地域におけるニーズの整合性は高い。また、イ国側の政策面では、「畜産開発中期計画」（2010～2014年）、及び2009年5月に新たに国会で承認され公布された「畜産開発・家畜衛生法」（Law No.18 2009 on Livestock Development and Animal Health）があり、後者の改正ポイントには、①指定された家畜伝染病の届け出義務と罰則の制定、②家畜伝染病予防のために淘汰した家畜への補償、が含まれている。なお、イ国に対するわが国の援助政策の優先分野は、詳細計画策定調査時（2010年）から変更されたものの、新たな優先分野にも「アジア地域及び国際コミュニティにおける課題への取り組み能力の強化への支援」がうたわれている。

（２）有効性

有効性は、「やや高い」。

プロジェクト目標の指標1については既述のとおり、2012年末までに達成されている。達成の要因としてはアクティブ・サーベイランス実施数の増加、及び年末の鳥インフルエンザの発生と見込まれている。その他の3つの指標については、中間レビュー時点ではいずれも達成されていないものの、プロジェクトの進捗はほぼ計画どおりである。各成果のプロジェクト目標達成への貢献度では、成果1によるものが大きい。プロジェクト後半に成果２、３及び４のそれぞれの目標が計画どおり発現し、ラボC/Pの異動がこれ以上起こらなければ、プロジェクト終了時までにプロジェクト目標が達成されるものと見込まれる。

（３）効率性

効率性は、「中」程度。

プロジェクトのラボC/Pの3名が2012年から2013年かけてラボ以外のポジションへ異動し、育成されたC/Pがプロジェクト活動に十分に活用されていない状況となった。要因としては、スバンDIC総務部門の業務量増加による人員不足状態に加え、C/P本邦研修が成果発現のための投入であることがイ国側に十分理解されていなかった点にある。プロジェクト実施中に発生した「細胞培養管理担当C/Pの未配置」、「発育鶏卵の供給不足」など、課題への対応では、課題解決のための直接対話がプロジェクト内で十分ではなく、その結果対策に遅れが生じ効率性へと影響した。スバンDIC予算により、通常業務としてプロ

ジェクト活動のパッシブ・サーベイランス、アクティブ・サーベイランス改善が実施されている。「講師リソースリスト」の作成により延べ13名のインドネシア人講師が研修に活用された。今後は更に継続的支援が可能なリソースパーソンとなることが望まれる。NIAHからの短期専門家派遣はC/Pへの技術移転・C/P育成を効果的にしており、効率性に貢献する要因となった。

（4）インパクト

正のインパクトが以下のように確認された。負のインパクトについては中間レビュー時点では確認できなかった。

1）上位目標達成の見込み

指標に係る以下の実績が確認されたが、中間レビュー時点で上位目標達成の見込みを設定された指標から評価するのは時期尚早である。

・上位目標の指標2「西ジャワ地域において2018年までに、スバンDICによって家畜疾病管理のモニタリングがされる地域の数が、39県中39県となる」に対し、2012年末で41県中37県がモニタリングされている。

2）その他のインパクト

・バンテン州では、アクティブ・サーベイランス実施前に関係者を集めたワークショップが開催され、州・県政府のコミットメント、連携、コミュニケーションが高まった。
・バイオ・セーフティメインテナンスセミナーが、スバンDICの施設を使って、DGLAHS主催、FAO/WHO協力の下、2013年3月に開催された。無償資金協力プロジェクトによる施設及び技術協力プロジェクトの実施により、スバンDICに対する他ドナーの関心がうかがえる。

（5）持続性

プロジェクト成果の持続性の見込みは、「やや高い」。

「妥当性」の項目に記載のイ国政策、法律面でプロジェクトの妥当性は確保されており、スバンDICは国内最多の家禽（鶏）飼養の3州を管轄し、首都ジャカルタを含む点で、イ国政府の家畜疾病管理、人獣共通疾病対策の戦略上重要な地域に位置するDICである。財政面では、スバンDIC予算は2011年136億ルピア、2012年99億ルピア支出された。プロジェクト活動のパッシブ・サーベイランス及びアクティブ・サーベイランスにはスバンDICの通常業務として予算が充てられ、機材のメンテナンス費用も緊急対応以外はイ国側でカバーされている。2012年度日本側のローカルコスト負担額（13億ルピア）は、スバンDIC年間予算99億ルピアの13％であり、イ国側の負担割合は高い。技術面では、移転された診断技術、及びパッシブ・サーベイランス、アクティブ・サーベイランスの実践により、スバンDICのC/P職員は徐々にその能力を向上させている。プロジェクト終了後も、研修やラボのOJT（オンザジョブ・トレーニング）により職員の能力を維持する計画であることが確認されている。

3－3　効果発現に貢献した要因

（1）計画内容に関すること

・プロジェクト目標の指標1（家畜疾病診断数・診断疾病の種類）は設定された目標値をそれぞれ超えたが、アクティブ・サーベイランス実施数の増加に加えて、2012年末に発

生した鳥インフルエンザが影響した可能性がある。

（2）実施プロセスに関すること

・短期専門家は同じ研究機関（NIAH）から延べ7名が派遣され、C/P研修の受入れ先のひとつともなっている。このような体制がC/Pへの一貫性をもった効率的な技術移転へとつながっている。

・スバンDIC予算で、通常業務の一部としてプロジェクト活動の技術移転によるパッシブ・サーベイランス、アクティブ・サーベイランスが実施されていることは、スバンDICの通常業務へプロジェクト成果がそのまま移行することから、プロジェクト実施による成果の持続性も高める大きな要因となっている。

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

・PDMの成果レベルの主な目標はC/Pの能力向上であり、指標には「総合的判断ができるようになる」が入っているが、スバンDICの認識は、組織機構上、ラボの検査結果を基に技術的承認をする（できる）のは技術部長（Vet.Service Section長、現在はDr. Sodirun）であり、技術部長不在の際は、DIC所長、Vet. Info.Sction長、Admi. Section長ができるとされている。スバンDIC組織内の権限にかかわることでもあり、専門家側とC/P側の認識を十分に一致させたうえで「総合的判断」に係る指標の目標値を設定する必要がある。

（2）実施プロセスに関すること

・C/Pの異動が効率性に影響している。日本側は、プロジェクト活動を通じたC/Pの能力向上は目標達成のために実施されていることを繰り返し説明する必要があった。

・「細胞培養室への人員配置遅れ」、「発育鶏卵不足の問題」がプロジェクト活動へ影響を及ぼした。プロジェクト内で対話が早期にされていれば、解決が早まった可能性もある。

3－5　結　論

スバンDICの機能はプロジェクト活動を通じて徐々に強化されている。関係者及び関係機関の継続的な尽力により、終了時までにプロジェクト目標は達成され得るものと見込まれるが、一層のプロジェクトの成功と持続性を確保するために、以下のとおり関係機関への提言を行う。なお、上位目標達成のためには、スバンDIC、州/県のDINAS及びB/Cタイプ・ラボ間の更なる連携が重要である。

3－6　提　言

（1）プロジェクト期間中のスバンDIC　C/P職員の適切な配置

既述のとおり、本邦研修後のC/P職員の異動が複数発生している。PDMの外部条件にも記載のとおり、プロジェクトにより技術移転を受けたスバンDICのC/P職員がプロジェクト期間中に他の事務所に異動しないような配慮が強く求められる。

（2）スバンDIC、州/県のDINAS及びB/Cタイプ・ラボ間の体系的な連携

地方分権化におけるDICと州/県のDINASの連携は、時として難解な課題である。成果3のアクティブ・サーベイランスはこれらの各政府機関が連携し、家畜疾病管理を効率的または有効的に実施するための貴重な機会となっていることから、成功事例について、

DGLAHS を通じた他地域への共有が望ましい。

（３）新規手法の政府マニュアルへの反映

寄生虫学ラボへ派遣された日本人専門家は、試験精度を高めるために、これまで多くの手法を導入してきた。これらの検査手法が政府が定めるマニュアルに掲載されていないため、ラボの検査手法として採用されていない事例が散見された。DGLAHS による速やかなマニュアル改訂が望まれる。

（４）PDM の指標改定

現行 PDM の指標（上位目標、成果２～４）について、本報告書付属資料２「中間レビュー報告書（英文）」の ANNEX-18 のとおり指標の改定を提言する。

（５）ラボ運営の改善

プロジェクト実施によるすべての技術移転終了後も、スバン DIC は勤務者の安全性と環境保全を含む国際基準に沿ったラボ運営の改善を継続していくことが望まれる。

３－７　教　訓

（１）インドネシア国内研修体制の改善[1]

現在のイ国政府の研修体制は短期実施のみであるが、本プロジェクトの研修期間が一定期間確保され、有効性を確認できたことから、今後は同国政府内での長期研修の実施が望ましい。

（２）現地講師人材リストの早期作成と活用

イ国人現地講師リストがプロジェクト活動計画のひとつとして早期に C/P により作成され、プロジェクトの研修とセミナー講師として計画的に活用された。今後も継続的な投入がなされれば、効率的であるだけでなく、相手国側のモチベーションを高めることができるため、現地リソース活用の早期計画策定と実施は重要である。

（３）本邦支援体制の確保

診断技術向上のために、8 名中 7 名の日本人短期専門家が NIAH から派遣されただけでなく、同研究所は C/P の研修受入れ先としても活用され、プロジェクトの効率的かつ計画的な実施に大きく貢献した。プロジェクト実施前に必要な専門家人材派遣計画を明確化し、国内支援委員会や本邦における人材協力の拠点となる機関との包括的な人材支援体制を確立することは、プロジェクトの計画的かつ効率的な実施を行ううえで、極めて重要である。

[1] イ国側調査団員がまとめた教訓である。イ国内の研修は数日の短期研修の繰り返しで有効的でなく、1 カ月未満とはいえ、短期専門家による指導は有効であったとの評価に基づくもの。

第１章　中間レビュー調査の概要

１－１　調査団派遣の経緯と目的

インドネシア共和国（以下、「インドネシア」と記す）は、畜産業の発展及び生産性向上に対する極めて重要な課題として、長年、家畜疾病対策に取り組んでいる。特に近年、社会経済的な損失及び人畜共通被害軽減のために、これらの疾病発生に係る早期の対応、迅速な情報伝達が必要とされている。

インドネシアでは家畜疾病対策のために、家畜疾病診断センター（Disease Investigation Center : DIC）が農業省畜産・動物衛生総局（Directorate General of Livestock & Animal Health Services : DGLAHS）の下、全国に 7 カ所設立されていた（2008 年当時）。これら DIC は A タイプ・ラボと位置づけられ、それぞれ数州を管轄し、家畜疾病診断を実施している。また、各州及び各県レベルには B タイプ及び C タイプ・ラボが配置されている。DGLAHS 下にある A タイプ・ラボでは家畜疾病調査及び診断を実施し、各州にある B タイプ・ラボ、各県にある C タイプ・ラボでは、それぞれ、州／県が策定する家畜疾病対策による家畜疾病管理を行っているが、これらの 3 タイプのラボ間での連携体制は弱く、全国的に DIC 管轄下の家畜疾病管理体制が確立されていないという問題がある。

わが国は 2009 年に無償資金協力プロジェクト「鳥インフルエンザ等重要家畜疾病診断施設整備計画」により、スバンに DIC 施設を新設し、併せて既存のメダン DIC 及びランプン DIC 施設の一部改修支援を行った。

スバン DIC は、首都ジャカルタから約 100km 東に位置し、ジャカルタ州、西ジャワ州、バンテン州を管轄している。この 3 州には、インドネシア国内で飼養される鶏の約 60％が集中しており、家畜疾病対策上、非常に重要な地域となっている。新設されたスバン DIC には 47 名のスタッフ（うち技術スタッフは獣医師 21 名・獣医技術者 16 名）が配置されていたが、これらスタッフの多くは実務経験に乏しく、診断技術も十分でない者が多い。こうした背景の下、インドネシアはスバン DIC の家畜疾病診断能力向上、並びに、地方政府と連携した家畜疾病管理体制構築につながる、スバン DIC の組織体制強化を目的とした技術協力プロジェクトの実施をわが国に要請した。

これを受け、独立行政法人国際協力機構（JICA）は 2011 年 7 月から 2015 年 7 月までの 4 年間の予定で「家畜衛生ラボ能力向上プロジェクト」（以下、「プロジェクト」と記す）を開始し、現在、長期専門家 3 名を派遣中である。今般、プロジェクト期間の中間地点を迎えたため、プロジェクトの進捗や実績の評価を行い、プロジェクトの残り期間の課題を分析し、対策について提言を行うべく、中間レビュー調査団を派遣することとなった。

１－２　調査団の構成と調査期間

（１）団員構成

調査の実施にあたっては、以下のメンバーから成る合同評価調査団を形成し、日本側・インドネシア側双方による合同評価を行った。

＜日本側＞

	分　野	氏　名	所　属
1	団長／総括	鍋屋　史朗	JICA 農村開発部専任参事役
2	家畜疾病診断	中尾　哲也	農林水産省動物検疫所精密検査部微生物検査課長
3	獣医疫学	山本　健久	動物衛生研究所ウイルス・疫学研究領域主任研究員
4	計画管理	山根　誠	JICA 農村開発部水田地帯第一課企画役
5	評価分析	髙橋　佳子	有限会社 Y's コンサルティングオフィス

＜インドネシア側＞

1	団長	Mr. M. Farid	DGLAHS、JICA マネジメントユニットメンバー
2	団員	Ms. Nilma Lubis	DGLAHS 動物衛生局（Directorate of Animal Health：DAH）サーベイランス課 シニア獣医オフィサー
3	団員	Ms. Megawaty Iskandar	DGLAHS 計画局 国際協力・広報課 獣医オフィサー
4	団員	Mr. Dhony Kartika Nugroho	DGLAHS / DAH サーベイランス課 獣医オフィサー

（2）調査期間

2013 年 5 月 9 日（木）～ 5 月 29 日（水）（21 日間）

1－3　対象プロジェクトの概要

（1）協力期間

2011 年 7 月～ 2015 年 7 月（4 年間）

（2）協力相手先機関

実施機関：農業省畜産・動物衛生総局（DGLAHS）

カウンターパート（C/P）機関：DGLAHS、スバン家畜疾病診断センター（スバン DIC）

（3）プロジェクトサイト

スバン DIC

（4）上位目標

西ジャワ地域（スバン DIC 管轄地域）の家畜疾病対策が強化される。

（5）プロジェクト目標

スバン DIC の家畜疾病診断サービスの質・量が向上する。

（6）成果

1．スバン DIC スタッフが基本的かつ体系的な家畜疾病診断技術を習得する。

2．スバン DIC スタッフの、顧客の立場に立った検体診断サービス（パッシブ・サーベイランス）に係る実施能力が強化される。
3．スバン DIC スタッフのパイロットサイトにおける、疾病調査及び疾病対策技術支援（アクティブ・サーベイランス）の実施能力が強化される。
4．スバン DIC スタッフが、管轄地域内の獣医技術者・獣医師・農家に必要な家畜衛生に係る情報提供（ニューズレター、巡回意見交換等)、啓発活動、技術支援活動を継続的に実施する。

第２章　中間レビューの方法

２－１　評価の枠組み

本中間レビュー調査は、「新 JICA 事業評価ガイドライン　第１版」に基づき、合同評価調査団メンバーによって実施された。中間レビューでは、プロジェクト・デザイン・マトリックス（PDM）とプロジェクト活動計画表（PO）に基づきプロジェクトの実績と実施プロセスを把握し、プロジェクトが順調に効果発現に向けて実施されているか否かを確認し、評価５項目（妥当性、有効性、効率性、インパクト、持続性）の視点による評価を行う。中間レビューでは特に、プロジェクトの阻害・貢献要因とともに妥当性、効率性に焦点を絞り、有効性については残り期間でプロジェクトの目標を達成できる見込みがあるかを検証することを目的としている。

本中間レビューでは、達成度、実施プロセス、評価５項目の項目ごとに具体的な質問を設定した評価グリッドを作成し、それに基づいて評価を行った。評価グリッドは、2012 年 3 月の合同調整委員会（JCC）により承認された改訂版 PDM Ver.1 を基に作成された。PDM のロジカルフレームワークの内容及び評価５項目の視点については以下のとおりである。

＜ PDM のロジカルフレームワーク＞

上位目標	プロジェクト目標が達成された結果として、発現が期待される開発効果で、プロジェクトの方向性を示す。
プロジェクト目標	プロジェクトの実施により、終了時までに達成が期待されている目標
成果	プロジェクト目標を達成するために実現すべき複数の事項で、活動の実施により達成される。
活動	プロジェクトの成果を実現するために、人員、資金、機材などの投入を効果的に用いて実施する具体的な行動
外部条件	プロジェクトの成功のために重要であるが、プロジェクトではコントロールできず、かつ生ずるか否かが不確かな条件
指標	成果、プロジェクト目標、及び上位目標の達成度を具体的に示す基準となる量的、質的な目標値
入手手段	指標を検証するためのデータソース
投入	プロジェクト実施のために必要で、援助側、非援助側が提供する人員、資金、機材、施設など
前提条件	プロジェクト開始前に満たされるべき事柄、条件

＜５項目評価の視点＞

妥当性	プロジェクト実施の必要性、正当性に関する評価 ・プロジェクト目標、上位目標が、インドネシア政府の開発目標や受益者のニーズに合致しているか、日本の政策や JICA 事業計画との整合性はあるか。 ・プロジェクトの計画、アプローチの選択は適切か。

有効性	プロジェクトの効果に関する評価 ・プロジェクトの実施が、受益者や社会に便益をもたらしているか。 ・成果及びプロジェクト目標の評価時点での達成状況及び将来達成する見込みはあるか。
効率性	プロジェクトの効率性に関する評価 ・成果の達成度と活動は適切に設定されているか。 ・プロジェクトの成果と投入の関係において、資源が有効に活用されているか。 ・投入の時期、質、及び規模は適切か。
インパクト	・プロジェクトの長期的、波及的効果に関する評価 ・上位目標の発現は見込まれるか。 ・上位目標とプロジェクト目標は乖離していないか。 ・プロジェクトが実施されることによる直接的、間接的な正負のインパクトが生じているか。
持続性	・プロジェクト終了後の便益・開発効果の持続性に関する効果 ・援助の終了後、プロジェクトで発現した効果が持続するか。 ・政策、財政、組織、制度、技術などの側面において、プロジェクトで実施された活動が継続的に行われるための基盤、支援があるか。

２－２　主な調査項目とデータ収集方法

本中間レビューでは、評価分析のために定性的・定量的データを以下の方法で収集した。

（1）プロジェクト関連書類のレビュー

- 詳細計画調査報告書
- プロジェクト作成事前資料
- 短期専門家業務完了報告書
- 技術協力プロジェクト事業進捗報告書
- 技術協力プロジェクト月次報告書

（2）主要関係者への質問票配布と受領

- DGLAHS プロジェクトマネジャー（未回収）
- 副マネジャー、スバン DIC マネジメント（配布 4 名中回収は事務局長 1 名）
- 日本人長期専門家 3 名
- C/P（各ラボチーフ）7 名
- スバン DIC 管轄 3 州 DINAS 畜産局（西ジャワ州 DINAS、バンテン州 DINAS、ジャカルタ特別州 DINAS）

（3）主要関係者へのインタビュー（主要面談者リスト参照）

- DGLAHS（プロジェクトマネジャー、副マネジャー）
- スバン DIC のマネジメント 3 名

・日本人長期専門家 3 名
・スバン DIC の C/P　21 名（8 ラボ・メンテナンスのチーフ個別及びスタッフのグループインタビュー）
・西ジャワ州 DINAS
・西ジャワ州 B ラボ（チコレ）
・バンテン州 DINAS
・バンテン州 B ラボ
・ジャカルタ特別州 DINAS
・ジャカルタ特別州 B ラボ

（4）JICA 供与機材使用状況（スバン DIC 各ラボ・事務所）の確認

（5）スバン DIC ラボ・施設／設備視察

（6）パイロットサイト視察（C/P アクティブ・サーベイランス能力向上のためのサイト）
・ジャカルタ特別州の酪農コロニー（2013 年度乳牛ブルセラのサーベイランス実施予定地）

第３章　プロジェクトの実績

３－１　投入の実績

投入実績の詳細は以下のとおり。

３－１－１　日本側投入

（１）専門家派遣（派遣分野別）

表３－１　専門家派遣実績（2013 年 4 月末現在）

派遣分野（氏名）		派遣期間計	専門家 / 回数
１．チーフアドバイザー／家畜衛生管理（木嶋　眞人）	長期	21MM	1 名
２．業務調整／家畜衛生情報（前田　康之）	長期	21MM	1 名
３．獣医診断技術／疫学（小池　生夫）	長期	21MM	1 名
長期専門家合計		63MM	3 名
１．病理診断技術（2011, 2013 芝原　友幸、2012 三上　修）	短期	8.5MM	2 名 / 3 回
２．獣医疫学（2011, 2012 小林　創太）	短期	2.5MM	1 名 / 2 回
３．寄生虫症診断（2011 松林　誠、2012 藤﨑　幸藏）	短期	3.5MM	2 名 / 2 回
４．獣医公衆衛生（2013 宮本　享）	短期	2.0MM	1 名 / 1 回
短期専門家合計		16.5MM	6 名 / 8 回

出典：プロジェクト資料

（２）供与機材（年度別）

供与機材費用総額は表３－２のとおり。調査ではすべての機材が所定の場所で活用されていることを確認した。なお、内訳は、58％がラボ・調査用機材、40％が調査用車両であった。

表３－２　供与機材費

（単位：ルピア）

機材の種類	2011 年度	2012 年度	計	％
１．ラボ／調査用機材	397,892,700	552,442,025	950,334,725	58％
２．車両（2 台）	188,100,500	458,000,000	646,100,500	40％
３．OA 機器	30,830,530	0	30,830,530	2％
合計	616,823,730	1,010,442,025	1,627,265,755	100％

出典：プロジェクト資料

（３）日本側ローカルコスト負担

日本側ローカルコスト負担は、2012 年の実績で 13 億ルピアであり、スバン DIC 予算総額 99 億ルピアの 13％ であった。

表３－３　ローカルコスト負担

	2011 年度	2012 年度	計
経費（ルピア）	336,124,209	1,307,681,171	1,643,805,380
経費（日本円）	2,869,156	11,209,443	14,078,599

出典：プロジェクト資料

（４）C/P 本邦研修

表３－４　本邦研修 所属別一覧

（単位：人）

所属（ラボ / 部）	2009 年	2010 年	2011 年	2012 年	2013 年	合計	異動
血清学ラボ				1	1	2	
ウイルス学ラボ	1	(1)	(1)	1		2	
細菌学ラボ	(1)	(1)	1	(1)		1	-2*
寄生虫学ラボ		1	1			1	-1**
病理学ラボ		1	1			1	
バイオテクノロジーラボ	1		(1)			1	
疫学ラボ	(1)		1			1	
獣医公衆衛生ラボ		1		1		2	
獣医サービス / 情報部	1	1				2	
総務部門	1			1		2	
合計	4	4	4	4	1	17	-3

注）*総務部へ異動　　**DGLAHS へ異動　　括弧内は異動済みの人数

出典：2010 年調査結果及びプロジェクト資料

３－１－２　インドネシア側投入

（１）C/P 配置

2011 年 7 月から 2013 年 5 月（調査時点）までに、延べ 52 名（DGLAHS　6 名含む）がプロジェクト C/P として配置された。スバン DIC の C/P は、所長 1 名、獣医サービス 1 名、獣医情報 1 名、総務 1 名、血清学ラボ 2 名、ウイルス学ラボ 4 名、細菌学ラボ 3 名、寄生虫学ラボ 4 名、病理学ラボ 3 名、バイオテクノロジーラボ 2 名、疫学ラボ 3 名、獣医公衆衛生ラボ 5 名の合計 30 名。このうち獣医技術者は 18 名、パラメディックが 12 名であるのこのほかに、総務スタッフ 5 名、財務 2 名、メンテナンス 5 名も C/P に含まれている。

（２）ローカルコスト

プロジェクト開始後のスバン DIC 予算総額は表３－５のとおり。2011 年度 135 億ルピア、2012 年度 99 億ルピアで、およそ 1 億円となっている。ちなみに、プロジェクト開始前 2010 年度は 56 億ルピアであった。プロジェクト活動がスバン DIC の活動に組み込まれていることから、プロジェクト活動に要する費用もスバン DIC 予算の通常業務として支出されており、後述するように財政面での持続性に貢献している。例えば、予算費目

の「診断費」に含まれる「試薬・小型実験器具」のインドネシアと日本の支出額を比較すると、スバン DIC 支出実績は、2011 年の 1,898,526,400 ルピア、2012 年の 1,307,968,200 ルピアに対し、日本側は 45,407,900 ルピア、735,702,629 ルピア（専門家調べ）であり、インドネシア側 83.6%、日本側 16.4%となり、インドネシア側の支出割合が高いことが確認できる。また、プロジェクト関連費用として確認されたものは、C/P の研修費、試薬、資材、フィールドサーベイ費用、資機材メンテナンス費用、年次地域調整会議などがあり、「日本側はその一部を負担する」という原則が守られている。なお、インドネシア側の DGLAHS が確保したプロジェクトカウンターバジェットは 4 年で 25 億ルピアであり、主にスバン DIC の高額機材の購入に充てられおり（プロジェクトによれば、2012 年度は暗視野顕微鏡、車両、セーフティキャビネット、インキュベータなどが購入され、2013 年度は、オートクレーブ、純水製造機、ストマッカー、嫌気培養器、顕微鏡カメラシステムなどが導入される予定である。）、スバン DIC へ配賦される予算には含まれていない。

表３－５　インドネシア側スバン DIC 予算

（単位：ルピア）

	2011 年度	2012 年度	計
スバン DIC	13,572,275,000	9,913,273,000	23,485,548,000

出典：プロジェクト資料

（３）施設・設備

インドネシア側から提供された施設設備は、スバン DIC 施設のほか、プロジェクト事務所（専門家執務室）及びラボ内専門家執務用机イスがある。なおスバン DIC は既述の予算の中から、プロジェクト期間中にも、研修参加者用宿舎、公衆衛生ラボ、ゲストハウス、ジェネレータハウスを敷地内に増設している。

３－２　成果（アウトプット）の達成状況

３－２－１　成果１

スバン DIC スタッフが基本的かつ体系的な家畜疾病診断技術を習得する。

表３－６　成果１の達成状況

指標	現状	達成度*
1-1. スバン DIC の対象 8 ラボの診断技術習得度が、2013 年 6 月までにラボごとに設定された「プロジェクト技術到達目標シート」の目標値に達する。	各ラボ C/P から面談による聞取り調査で、シートに設定の診断技術／サービスについて、技術移転は計画どおりほぼ終えている。経験を積むことにより習熟が期待される。	高
成果 1 全体の達成度		**高**

*達成度；「高」は、指標に示された目標値に十分達していることを示す。「中」は、指標に示された目標値に部分的に達していることを示す。「低」は、指標に示された目標値に全く達していないことを示す。「データなし」は、指標に示された数値が入手できないことを示す。

各ラボの C/P との面談で、「プロジェクト技術到達目標シート」に書かれた診断技術・サービスの技術移転をほぼ計画どおり完了していることが確認された（指標）。ただし、専門家によれば、C/P の診断技術はまだ習熟途上であり、各ラボともに今後の継続した疾病診断の経験を積むことが必要とされている。C/P がすべての項目を完了していないのは、ラボ間の人事異動や診断サンプルの入手が完了していないケースである。活動の進捗状況は、プロジェクト開始後実施されたベースライン調査（活動 1-1）結果を基に、各ラボで技術移転が必要な診断技術／サービス内容を C/P と専門家が検討し（活動 1-2）、目標（ターゲット・ゴール）と達成期日がシートに明記された（活動 1-3）。「講師リソースリスト」も短期専門家と大学を訪問するなどして作成され、研修などで活用されている（活動 1-4）。また、習熟度試験（Proficiency tests）は、これまでにウイルス学ラボ、バイオテクノロジーラボのみであるが、国際獣疫事務局（L'Office International des Épizooties：OIE）認証機関オーストラリア家畜衛生ラボ（AAHL）及び他の DIC で実施されている（活動 1-6）。

３－２－２　成果２

スバン DIC スタッフの、顧客の立場に立った検体診断サービス（パッシブ・サーベイランス）に係る実施能力が強化される。

表３－７　成果２の達成状況

指標	現状	達成度
2-1. スバン DIC の診断担当獣医スタッフ 18 名のうち 8 名が、検体の診断において各ラボの試験結果を踏まえた総合的判断ができるようになったことをプロジェクトに認定される。	今後に着手予定。現状では、技術部長 1 名がリコメンデーションを診断結果の最後に書いている。診断結果を基にしたコメントは、ほか 12 名の獣医スタッフが月替わりで担当。PJ 内で「総合的判断」の定義確認が必要。	低
成果２全体の達成度		**低**

プロジェクト開始後（2011 年）に実施されたベースライン調査により、パッシブ・サーベイランスのサンプルフローの改善すべき状況が調査された。策定された新しいフローは疫学ラボと関連ラボによりこれまでも継続して改善されてきている。中間レビュー現在までのところ、顧客の立場に立った診断サービス提供のため、検査ごとの必要日数が決定され一覧表と定められたところである。

指標「スバン DIC の診断担当獣医スタッフ 18 人のうち 8 名が、検体の診断において各ラボの試験結果を踏まえた総合的判断ができるようになったことをプロジェクトに認定される」の達成度については、これまでは基本的な診断技術の移転が中心であったことから未達成である。今後、着手が予定されているものの、スバン DIC の現状では、各ラボでの試験結果が書かれた「診断結果シート」上に、1 名の獣医スタッフが月替わり（年間で 12 名）でコメントを書き、この後に技術部長によりリコメンデーションが付され、所長の署名後に顧客に返却されている。指標の Comprehensive Diagnostic Judgment（総合的判断）について、C/P 側は総合的判断ができる体制〔技術部長及び不在時に対応する 3 人（所長、情報部長、事務局長）〕が整

備されているとの認識であったが、専門家チーム側は指標が意味する技術的な「総合的判断」はしていないという認識であることがインタビューで確認されている。今後プロジェクト活動の中で、C/P と専門家が「総合的判断」の認識を共有したうえで、「プロジェクトによる認定」方法も含め検討し、スバン DIC に必要な技術移転について詳細を計画する必要がある。

３－２－３　成果３

スバン DIC スタッフのパイロットサイトにおける、疾病調査及び疾病対策技術支援（アクティブ・サーベイランス）の実施能力が強化される。

表３－８　成果３の達成状況

指標	現状	達成度
3-1. スバン DIC の診断担当獣医スタッフ 18 名のうち 18 名の、疾病調査における計画・立案、実施、モニタリング、フィードバックに関する理解度が、75%以上になる。	獣医スタッフに対する理解度テストは実施していない。2012 年から始まったパイロットサイトでの調査で、計画・立案及び事前会議・ワークショップの開催は主に疫学ラボが担当し、実施はすべてのラボのスタッフが参加する体制が形成されつつある。	中
3-2. スバン DIC の診断担当獣医スタッフ 18 名のうち 8 名が、パイロットサイトの疾病調査結果に基づいた家畜疾病対策の提言を作成できるようになる。	2012 年最初に実施された西ジャワ州でブルセラ病対策調査は、中間報告がされたものの結果は現在も分析中。提言作成は今後の予定だが、具体的技術移転の方法等は示されていない。指標 2-1 で示した現状に係る状況は同じで、検討を要する。	低
成果 3 全体の達成度		**中**

スバン DIC スタッフのアクティブ・サーベイランスのパイロットサイトは、短期専門家（獣医疫学）によって指導された新しい枠組みに従い、管轄地域内 3 州（西ジャワ州、バンテン州、ジャカルタ特別州）で、ベースライン調査結果及び各州の DINAS との協議を経て選ばれている。2012 年 4 月に西ジャワ州で開始され、その後各州で順次実施されており、2013 年も実施中である。各州でのアクティブ・サーベイランスは、西ジャワ州では牛ブルセラ病を実施し中間報告済み、バンテン州では水牛ブルセラ病を実施中、ジャカルタ特別州は酪農コロニーでのブルセラ病と個体識別用マイクロチップ取付けの計画を策定中である。バンテン州では、ベースライン調査に加え、疫学ラボが中心となり、対象県の実施能力（予算、人員）を把握するワークショップ（参加者：州・県政府畜産局、B/C ラボ獣医技術者、サイトの獣医師など）を開催し、バンテン州が 5 県、スバン DIC が 3 県を分担することを決定している。また、事前のサイト関係者への技術指導も実施されている。

したがって、疫学ラボを中心とした実施フローと体制（州・県の関係者を巻き込んだ計画策定、DIC の全スタッフが参加するアクティブ・サーベイランス実施、結果分析、報告）がスバン DIC に確立されつつある。

３－２－４　成果４

スバン DIC スタッフが、管轄地域内の獣医技術者・獣医師・農家に必要な家畜衛生に係る情報提供（ニューズレター、巡回意見交換等）、啓発活動、技術支援活動を継続的に実施する。

表３－９　成果４の達成状況

指標	現状	達成度
4-1. スバン DIC スタッフによって、管轄地域の獣医技術者、獣医師、農家を対象としたニューズレターが 2012 年 6 月以降、年 2 回刊行される。	ニューズレターの代わりとして、ウェブサイトを立ち上げた。獣医技術者、獣医師のネット環境があることが前提だが、農家への情報伝達は十分に考慮されていない。	中
4-2. スバン DIC の診断担当獣医スタッフ 18 名のうち 8 名が、パイロットサイトの獣医技術者・獣医師・農家に対する啓発活動・技術支援活動の計画を、2013 年 12 月以降、毎年策定できるようになる。	啓発活動・技術支援活動計画に係る技術移転及び活動は未実施。活動計画（PO）の日程では初年度から計画策定の予定であった。プロジェクト内で成果 4 についての認識不足もうかがわれる状況が未実施の要因か。	低
4-3. 上記 4-2 で計画された活動の実施率が、年間で 90%以上となる。	現時点では、4-2 の計画策定がされていないため、実施率は算定できず。活動は、家畜疾病パンフの印刷・配布は実施済み。	低
成果 4 全体の達成度		**低**

スバン DIC スタッフが管轄地域内の獣医技術者・獣医師・農家等に対して実施する情報提供、啓発活動、技術支援活動は、中間レビュー時点までに実施されていたものは次のとおり。

①家畜疾病啓発パンフレット印刷・配布

② B/C ラボワーカーの短期専門家セミナー／研修への招待

③アクティブ・サーベイランスのためのスポット的技術研修

④ニューズレター（指標 4-1）に代わりスバン DIC のウェブサイトを立ち上げ

ウェブサイトへのアクセスについては、ラボワーカー・獣医師は可能であるが、農家のアクセスまで考慮されているとはいえず、フィールドの獣医師らとの検討が必要である。PO では初年度から年間計画を策定し計画に沿った活動を実施することとなっていたが、これまでのところ年間計画は策定されておらず（指標 4-2）、計画された活動の実施率が 90%以上となる（指標 4-3）についても実施率が算出できないことから、達成はされていないと評価せざるを得ない。2013 年度からこれらの活動が本格化する予定であるが、計画の早期作成が必要である。

３－３　プロジェクト目標の達成状況

プロジェクト目標：**スバン DIC の家畜疾病診断サービスの質・量が向上する。**

表３－10　プロジェクト目標の達成状況

指標 *	現状	達成度
1．スバン DIC における年間家畜疾病診断数・診断疾病の種類が、プロジェクト終了時点で 35,000 検体、16 種類以上となる。	2010 年 14,875 件、15 種類であったものが、2012 年実績で診断数 47,466 件、23 種類となった。増加の要因としてはアクティブ・サーベイランス実施数の増加、及び 2012 年 12 月の鳥インフルエンザの発生が影響している可能性がある。	高
2．スバン DIC の検体診断サービスにおいて、プロジェクトで定めた日数内で診断結果を顧客にフィードバックできるようになる。	これまでに、パッシブ・サーベイランスのフローの見直し、各検査の必要日数が定められたところである。	低
3．スバン DIC スタッフがパイロットサイトにおいて、地域特性を考慮した家畜疾病調査の計画・立案、実施、モニタリング、フィードバックを 1 年に 2 回 / サイト以上実施するようになる。	スバン DIC スタッフのアクティブ・サーベイランス能力向上のためのパイロットサイトにおけるサーベイランスの実施は、2012 年から管轄の 3 州において、技術移転された枠組みで、初めて計画・実施されているところである。	中
4．スバン DIC の利用者（DINAS の獣医技術者、獣医師、農家）のうち調査対象者の 80％が「診断サービスがプロジェクト実施前より向上した」と回答する。	利用者への調査は未実施。インタビューの結果は、3 州の DINAS 及び 3 州の B ラボのうち、州 DINAS の 1 つ、州 B ラボの 2 つが、診断サービスが徐々に向上していると評価した。	低
プロジェクト目標の達成度		**中**

* プロジェクト目標の指標目標値は、プロジェクト終了時（2015 年 7 月）までに達成すべき目標として設定。

表３－11　スバン DIC の疾病診断実績

		2010 年	2011 年	2012 年	2013 年	2014 年	2015 年
a．年間疾病診断数		14,875	32,016	47,466			
b．受付サンプル数	パッシブ	-	-	10,392			
	アクティブ	-	-	19,555			
c．診断疾病の種類		15	23	23			

出典：プロジェクト資料

指標 1 の家畜疾病診断数・診断疾病の種類は、2012 年度で 47,466 件・23 種類となり、目標値の 35,000 件、16 種類をそれぞれ上回ったが、その要因はアクティブ・サーベイランス実施数の増加と 2012 年末に発生した鳥インフルエンザによるものと思われる。なお、指標 1 「疾病診断数」「種類」の推移は表３－11 のとおり。「受付サンプル数」については、2012 年実績ではパッシブ・サーベイランス 10,392 サンプル、アクティブ・サーベイランス 19,555 サンプル、合計 29,947 サンプルであった。指標 2 に関しては、パッシブ・サーベイランスの顧客の立場に立った各検査に必要な日数を設定したところである。指標 3 に関しては、3 つの州のパイロットサイト

において、技術移転された新しい枠組みで、地域特性を考慮したアクティブ・サーベイランスが開始された。指標４については、中間レビュー調査で訪問した３州のうち、１つの州の DINAS 畜産局及び２つの州 B ラボからはスバン DIC の診断技術・研修・セミナーの実績は徐々に向上していると評価された。また、スバン DIC が毎年作成・配布している「疾病マップ」は大変役に立っているとの意見が聞かれた。一方、インタビューをした州 DINAS 及び B ラボの中にはスバン DIC の診断技術サービスの向上について懐疑的な意見もあった（ジャカルタ特別州の DINAS、ジャカルタ特別州 B ラボ、及び西ジャワ州の DINAS でのインタビューの結果）。プロジェクトの進捗状況からすれば、顧客が実感するところまでサービスが向上していないのは当然ともいえるが、今後プロジェクト後半において計画どおりスバン DIC のサービス向上によって顧客のこのような見方を変えることができれば、プロジェクト終了時までに指標４が達成され、プロジェクト目標が達成される見込み。

３－４　実施プロセスの検証

プロジェクトの実施プロセスにおいては、主に以下のような状況が確認された。

（１）プロジェクトで育成したラボ C/P の人事異動

スバン DIC では 2012 年に７カ月の本邦研修から帰国した C/P ２名を、日本で習得した技術に合わせ、それぞれ病理学ラボ、寄生虫学ラボへと異動させ、C/P のモチベーションを高めた。一方、本邦研修を受講したラボの C/P の総務部門、外部への異動が３名あった。３カ月の本邦研修を受けた細菌学ラボのチーフは、2012 年に総務部事務局長へ異動した。さらに、2012 年に７カ月の本邦研修を終えた細菌学ラボの獣医スタッフは 2013 年１月より総務部兼務となり、中間レビュー時点では朝夕にラボに立ち寄る以外は総務業務が中心となっている。また、2013 年３月には寄生虫学ラボのチーフが DGLAHS へ異動している。「プロジェクトで育成した人材が異動しない」ことは PDM でもプロジェクト目標達成に必要な外部条件として計画段階から設定されている。背景にはスバン DIC 全体の人員不足（総務部門とパラメディック）がある。

（２）「細胞培養」管理担当 C/P の未配置

プロジェクト開始後、スバン DIC 所長の希望により開始した「細胞培養」であるが、他の業務への任命など、これまで技術移転した何人かの C/P の積極的な関与が継続せずに、長期専門家が主に管理を担当している。中間レビュー時の所長へインタビューで、血清学ラボの C/P が任命されたことを確認したが、彼もまたバイオセーフティラボでの重要な業務を担っている人物である。

（３）インドネシア側による施設・設備の増設

スバン DIC の日本の無償資金協力によって供与された施設と機材は、有効に活用されている。また、現在までに、研修参加者用宿舎、公衆衛生ラボ、ジェネレータハウス、ワークショップ棟が、インドネシア側予算によって増設されてきている。

（4）短期専門家派遣元と C/P 研修受入れ先

8 名の日本人短期専門家がこれまでに派遣され、そのうち 7 名は日本の NIAH から派遣されている。また、短期専門家 8 名のうち 4 名は、2 回以上の複数回派遣であった。さらに、NIAH はインドネシア人 C/P の研修受入れ先ともなっている。プロジェクトの実施プロセスにおけるこれらの要因は、効率性にも貢献するものである。

（5）発育鶏卵の供給不足

スバン DIC 内で供給されてきた発育鶏卵（鳥インフルエンザ、ニューカッスル病など鶏病ウイルスの分離に必要不可欠）が、2012 年 11 月頃より供給不足の状況となった。原因は種鶏の切り替え管理対策の遅れによって極度に鶏卵が不足する事態を招いたことによる。結果として、依頼を受けた検査の遅延のみならず、術式も節約した方式で、ウイルスの分離率が低下した状態で検査を実施せざるを得ない状況となった。中間レビュー時点では、申請していた予算が承認され、2013 年 5 月 13 日から既に鶏舎の増設工事が開始されている。種鶏も購入予定であり、当面の検査は SAN（Specific Antibody Negative）鶏卵購入により対応することが決められたところであった。

（6）スバン DIC の ISO 認証取得へ向けた取り組み

プロジェクト計画時からスバン DIC の最優先事項として、国が政策として推し進める ISO 認証取得が大きな課題となっている。パッシブフローの改善などいくつかの取り組みは、プロジェクトで実施する活動ともリンクしており、これらの成果には ISO 認証に必要な改善項目でもあることから、プロジェクトの活動を促進している要因にもなっている。

第４章　評価５項目による評価

４－１　妥当性

プロジェクトの妥当性は、以下のような状況が確認されたことから、中間レビュー現在においても、「高い」と判断された。

（１）ターゲットグループ及び地域のニーズとの整合性

プロジェクト目標及び上位目標のターゲットグループ（スバン DIC のスタッフ）のニーズとの整合性については、C/P 質問票回答者（各ラボのチーフ）7 名中 7 名全員が「整合性がある」と回答した。また、「西ジャワ地域の疾病は年々増加しておりスバン DIC スタッフの能力は強化される必要がある」との意見もあり、地域におけるニーズについても管轄 3 州のスバン DIC への期待度も高いことから、現時点でも整合性が認められた。

（２）インドネシア側政策との整合性

インドネシア側の政策としては「畜産開発中期計画」（2010 ～ 2014 年）においては、地方分権化政策の状況において「国家規格となるような家畜衛生プログラムの新システム構築」に向けた取り組みが重要な課題となっている。また、2009 年 5 月に新たに国会で承認され公布された「畜産開発・家畜衛生法」（Law No.18 2009 on Livestock Development and Animal Health）では、主な改正ポイントに、①指定された家畜伝染病の届け出義務と罰則の制定、②家畜伝染病予防のために淘汰した家畜に対する補償、が含まれている。スバン DIC がプロジェクトによって迅速で正確な疾病診断サービスを提供できるようになることで、改正された法律への貢献も期待されることから、プロジェクト目標及び上位目標のインドネシア側の政策との整合性は高い。

（３）日本側政策との整合性

インドネシアへの日本の ODA による援助政策は詳細計画調査時（2010 年）から変更されたものの、新たな政策にも「更なる経済成長への支援、格差是正と安全性の高い社会の構築への支援、アジア地域及び国際コミュニティにおける課題への取り組み能力強化への支援」がうたわれている。スバン DIC への家畜疾病診断技術の導入によるジャカルタ首都圏を含む西ジャワ地域の家畜衛生コントロールを目的とした本プロジェクトは、これらの援助政策との関連性において現在でも整合性はある。

（４）プロジェクト計画の適切性

本件の計画案は、2010 年 10 月の詳細計画調査時にスバン DIC、及びランプン、メダンの両 DIC でも開催したワークショップで分析された課題の解決を目的として策定されており、さらにスバン DIC 全スタッフ参加の下、PDM 案及び PO 案が策定されたことから、関係者のニーズ、状況に対応した実践的なプロジェクトデザインとなっている。

４－２　有効性

有効性は、以下の観点から、「やや高い」。

（1）プロジェクト目標の達成レベル

2012 年の実績で、プロジェクト目標の指標 1 、年間疾病診断数と診断疾病の種類が、指標に設定された目標値を超えた。その要因のひとつはアクティブ・サーベイランス実施数の増加だが、2012 年 12 月に発生した鳥インフルエンザの影響も増加の要因と考えられている。その他の 3 つの指標については、現在のところどれもまだ達成レベルにはない。

（2）各成果（アウトプット）の達成レベルとプロジェクト目標達成への貢献度

中間レビュー時点では、活動のスケジュールでも実施が最も重要で、かつ、早く計画されていた成果 1 の「スバン DIC スタッフが基本的かつ体系的な家畜疾病診断技術を習得する。」によるものが大きく、成果 2 、 3 は多少の貢献がある。指標の達成度はまだプロジェクト目標達成へ十分に貢献するレベルに達していないが、進捗はおおむね計画どおりである。

（3）成果からプロジェクト目標達成のための外部条件の現状

プロジェクト目標達成の外部条件「技術移転されたスタッフが、プロジェクト期間中に異動にならない」が満たされているといえない状況となりつつあるのは、実施プロセスで既述したとおり。現在のところ目標達成には大きな影響を及ぼさないであろうことが確認されている。

4－3　効率性

（1）投入の適切性

・プロジェクトの C/P のうち 3 名がプロジェクト期間中にラボ以外のポジションへ異動となったことで、プロジェクトの投入が十分に活用されない状況となり、プロジェクトの効率性に影響を及ぼした。これはスバン DIC 総務部門への人員配置が十分でない状況と、本邦研修はプロジェクトの投入であるとの理解がインドネシア側に十分得られていないことが要因であった。

・スバン DIC の通常業務としてプロジェクト活動のパッシブ・サーベイランス、アクティブ・サーベイランス改善がスバン DIC 予算で実施されている。

・成果 1 の活動に計画されていた「講師リソースリスト」の作成により延べ 13 名のインドネシア人講師がスバン DIC の研修に活用された。

・日本人短期専門家派遣では、日本の動物衛生研究所（NIAH）から 8 名中 7 名が派遣され、そのうち 4 名は二度派遣されている。また、NIAH では C/P 研修の受入れも行っており、これらの相乗効果が、C/P への技術移転・C/P 育成を効果的にしており、効率性に貢献する要因となっている。

（2）その他の効率性へ影響した要因

プロジェクト実施中に発生した「C/P 配置の遅れ」「発育鶏卵の供給不足」などの課題については、プロジェクト内での早期課題解決が十分に図られずに、技術移転や依頼された診断の遅れが生じており、効率性へと影響した。

４－４　インパクト

いくつかの正のインパクトが以下のように確認された。負のインパクトについては中間レビューの時点では確認できなかった。

（１）上位目標達成の見込み

上位目標：**西ジャワ地域（スバン DIC 管轄地域）の家畜疾病対策が強化される。**

表４－１　上位目標の達成状況

指標	現状	達成度*
１．スバン DIC における家畜疾病診断検体数が、2018 年までに 2015 年と比較して 10%増加する。	検体数は 2012 年実績で、29,947 件。	-
２．西ジャワ地域において 2018 年までに、スバン DIC によって家畜疾病管理のモニタリングがされる地域の数が、39 県中 39 県となる。	2012 年実績では、41 県中 37 県をモニターしている。	中
３．西ジャワ地域における、スバン DIC の家畜衛生に関する啓発・技術支援活動の数が、2018 年までに 2015 年と比較して 20%増加する。	プロジェクトの活動は今後本格化。	-
上位目標の達成度		-

*指標に係る状況が確認されたが、中間レビュー時点で上位目標達成の見込みを設定された指標から評価するのは時期尚早である。

（２）その他のインパクト

・バンテン州では、アクティブ・サーベイランス実施前にスバン DIC によって開催された関係者を集めたワークショップが実施されたことで、州・県政府のコミットメント、連携、コミュニケーションが高まったとの報告が州 DINAS 畜産局よりなされた。

・バイオ・セーフティメインテナンスセミナーが、スバン DIC の施設を使って DGLAHS / FAO/WHO との連携により 2013 年 3 月に開催された。わが国無償資金協力の施設及び技術協力プロジェクトの実施により他ドナーの関心を呼んでいることがうかがえる。

・西ジャワ州、ジャカルタ特別州及びバンテン州へのスバン DIC のサービスは、かつてこれらの州がワテス DIC 管轄下であった頃と比較して、より利用しやすいものとなったことでカバーする地域が増加しており、同様にサービスの頻度も増加している。

４－５　持続性

持続性の見込みは、「やや高い」。

（１）政策的持続性

インドネシア側の政策は当面継続する見込みであり、上位目標で家畜疾病管理の対策強化をめざす西ジャワ地域は、首都ジャカルタを含む地域でもあり、インドネシア政府の家畜疾

病管理の戦略上も重要な地域である。

（２）財政的持続性

財政面については、プロジェクト期間中のスバン DIC への予算は年間 1 億円程度配賦され、パッシブ／アクティブ・サーベイランスは通常業務の予算が投入され実施されてきており、スバン DIC 側にとってはプロジェクト活動も通常業務としてとらえられている。2012 年度日本側のローカルコスト負担額はスバン DIC 年間予算額の 13% であった。また、DGLAHS が用意したプロジェクトカウンターバジェットは 4 年間で 25 億ルピアであり、主にスバン DIC の高額機材の購入に充てられ、2012 年度は 6 千万ルピアが支出された。機材のメンテナンス費用もこれまで緊急時を除きインドネシア側でカバーされており、メンテナンス担当へのインタビューでも「スバン DIC のメンテナンス費用は十分である」ことが確認された。なお、DGLAHS は、プロジェクト終了後もスバン DIC が疾病診断サービスの提供によって西ジャワ地域へ貢献するための予算を担保することを表明している。無償資金協力の設備・機材のメンテナンス予算については、DGLAHS によって財務省の登録問題が解決されれば、財政的持続性は更に高くなる見込みである。

（３）技術的持続性

技術面では、移転された診断技術及びパッシブ／アクティブ・サーベイランスの実践によりスバン DIC は徐々にその能力を向上させている。また、プロジェクト終了後の移転技術については、研修やラボでの OJT などにより職員の能力を維持する計画であることが中間レビュー時の C/P への質問票回答及びインタビューで確認されている。

技術的持続性を見込むのは現時点では困難であるものの、今後残りの活動で成果２、３及び４が計画どおり発現し、顧客のニーズに立ったサービスを提供する仕組みが構築されれば、技術的持続性のみでなく、スバン DIC の制度的持続性も担保される見込みである。

第５章　評価のまとめ

５－１　結　論

スバン DIC の機能強化はプロジェクト活動を通じて徐々に進捗している。関係者及び関係機関の継続的な尽力により、プロジェクト目標は達成され得るものと見込まれるが、一層のプロジェクトの成功と持続性を確保するために、以下のとおり関係機関への提言を行う。また、上位目標達成のためには、スバン DIC、州 / 県の DINAS 及び B/C タイプ・ラボ間の更なる連携が重要である。

５－２　提　言

（１）プロジェクト期間中のスバン DIC　C/P 職員の適切な配置

本邦研修後の C/P 職員の異動が複数発生している。4 年間のプロジェクト期間は C/P 職員にとって日本人や外国人専門家との協働を通じて知識や実務経験を学ぶ限られた重要な機会である。PDM の外部条件にも記載のとおり、プロジェクトにより技術移転を受けたスバン DIC の C/P 職員がプロジェクト期間中に他の事務所に異動しないような配慮が強く求められる。

（２）スバン DIC、州 / 県の DINAS 及び B/C タイプ・ラボ間の体系的な連携

地方分権化における DIC と州 / 県の DINAS の連携は、時として難解な課題である。成果３のアクティブ・サーベイランスはこれらの各政府機関が連携し、家畜疾病管理を効率的／有効的に実施するための貴重な機会となっていることから、成功事例について、DGLAHS を通じた他地域への共有が望ましい。

（３）新規手法の政府マニュアルへの反映

寄生虫学ラボへ派遣された日本人専門家は、試験精度を高めるためにこれまで多くの手法を導入してきた。これらの検査手法が政府が定めるマニュアルに掲載されていないため、ラボの検査手法として採用されていない事例が散見される。DGLAHS による速やかなマニュアル改訂が望まれる。

（４）PDM の指標改定

現行 PDM の指標（上位目標、成果２～４）について、本報告書の付属資料２「中間レビュー報告書（英文）」ANNEX-18 のとおり指標の改定を提言する。

（５）ラボ運営の改善

プロジェクト実施によるすべての技術移転終了後も、スバン DIC は勤務者の安全性と環境保全を含む国際基準に沿ったラボ運営の改善を継続していくことが望まれる。

５－３　教　訓

（１）インドネシア国内研修体制の改善（インドネシア調査団員から同国側への教訓）

現在のインドネシア政府の研修体制は短期実施のみであるが、本プロジェクトの研修期間

が一定期間確保され、有効性を確認できたことから、今後同政府内で長期研修の実施が望ましい。

（2）現地講師人材リストの早期作成と活用

インドネシア人現地講師リストがプロジェクト活動計画のひとつとして早期に C/P により作成され、プロジェクトにおける研修とセミナーにおいて活用された。さらに短期専門家として継続的な投入がされれば、効率的な投入であるだけでなく、相手国側のモチベーションを高めることができることからも、現地リソース活用計画の早期策定と実施は重要である。

（3）国内支援体制の確保

診断技術向上のために、8 名中 7 名の日本人短期専門家がわが国の動物衛生研究所（NIAH）から派遣されただけでなく、同研究所は C/P の研修受入れ先としても活用され、プロジェクトの効率的かつ計画的な実施に大きく貢献した。プロジェクト実施前に必要な専門家人材派遣計画を明確化し、国内支援委員会や本邦における人材協力の拠点となる機関との包括的な人材支援体制を確立することは、プロジェクトの計画的かつ効率的な実施を行ううえで、極めて重要である。

５－４　団長所感

（1）オーナーシップ

中間レビューを通じて、実施機関である DGLAHS 及びスバン DIC のオーナーシップの高さを確認した。スバン DIC の予算は比較的潤沢（2011 ～ 2012 年の 2 年間で 23,486 百万ルピア = 約 2.1 億円）であり、①ドミトリー[2]、公衆衛生ラボなどインドネシア側予算による施設建設に加え、②試薬品などの消耗品も 2 年間の総額 4,768,715,658 ルピアのうちインドネシア側負担率は 83.6％と非常に高い。また、運営管理の一環として JICA 支援プロジェクトの内在化を図っている。すなわち、プロジェクトを実施機関であるスバン DIC の活動から独立させずに、スバン DIC の重点活動との同期化をインドネシア側 C/P と専門家チームが意識的に図っている。プロジェクト開始当初は必要予算の手当てが困難な時期もあったが、例えば、成果 3 で行うアクティブ・サーベイランスの対象疾病とスバン DIC が 2012 年度業務で実施する対象疾病をブルセラ病に統一することで、調査経費、労力が効率的に実施された旨が、専門家から報告されている。

（2）他機関との連携

1）スバン DIC の能力向上のため

「５－３　教訓（2）」では“プロジェクト初期段階でのインドネシア国内人材リストの作成”について述べたが、ASEAN 近隣諸国の専門家の活用も推奨される。これは、運営指導調査（2012 年 3 月）でも助言されている。

[2] インドネシア政府の予算（約 2,000 万円）により、2011 年 12 月に外部研修者受入れのために建設されたもの。他地域の DIC には、地方政府の獣医技術者などに診断技術を研修させるための施設を擁する所はなく、スバン DIC が初めての機関となる。プロジェクトには研修機能強化のための活動は含まれていないが、スバン DIC の C/P が研修講師となるので、地方政府獣医師らの技術向上に間接的な寄与することになる。（“第 2 回プロジェクト実施運営総括表”より）

２）上位目標に資するため

プロジェクトの上位目標は、“西ジャワ地域（スバン DIC 管轄地域）の家畜疾病対策が強化される”であり、DIC と州・県管轄の B/C タイプ・ラボとの連携が肝腎である。本プロジェクトの「詳細計画策定調査報告書」16 ページに記載のとおり、インドネシア政府が進める地方分権化の影響は家畜衛生の現場にもみられることから、成果３で進めるアクティブ・サーベイランスを通じてこれら機関間の連携のプロセスもモデル化し、パイロットサイト外でも活用できるように外部に発信することが望まれる[3]。

３）プロジェクトの効果的・効率的実施のため

インドネシア側調査団長の Farid 氏によれば、DGLAHS に登録[4]しているドナーは、JICA（日本）、KfW（ドイツ）、GIZ（ドイツ）、AusAID（オーストラリア）、FAO（国連）である。今次中間レビューでは、DGLAHS に事務室を構える FAO 及び AusAID と面談をした。

FAO は、USAID（米国）、AusAID の資金を受けて、鳥インフルエンザ、狂犬病を対象とする Emerging Center for Transboundary Animal Diseases（ECTAD）Program[5] を実施中である。FAO 支援の PDSR[6] に参加した地方政府獣医行政官が、本プロジェクトの成果３の活動に参加し貢献している。

AusAID の AIP-EID 2013 年事業計画[7] には、“地方分権化における家畜疾病対策の計画・運営の強化（Component-1）”、“家畜疾病診断ラボの強化（Component-2.2）”といった本プロジェクトと共通する活動が含まれている。DGLAHS 主催のドナー会議が四半期ごとに開催されていることもあり、新設のスバン DIC は認知されており、FAO からは鳥インフルエンザに係る検査依頼を受けている。スバン DIC の能力強化に専念してきたプロジェクト前期から、後期は他機関との連携・発信にも更に注力していくことを、長期専門家と確認をした。

５－５　技術団員所感（獣医疫学）

（１）スバン DIC 全体の状況について

診断・検査の実施については、施設自体の築年数が浅いこともあるが、いずれのラボもよく整理されており、供与機材の使用状況を含めて、良好に機能しているのではないかと感じられた。特に、ISO の取得は、取得要件の一環として、冷蔵庫などの定期的な温度管理や利用状況の管理・記録が徹底されており、いい意味で影響しているようであった。また、ISO の取得に伴い、診断に利用される検査法については標準作業手順（SOP）が整備されており、このことは、供与技術の維持の観点からも有効ではないかと感じられた。

一方、地方分権化に伴い、防疫対策に必要な補償予算の確保やワクチン接種などの政策の決定は実質的に州政府が行っているので、中央政府の機関である DIC は、サーベイランスなどで得られた成果を施策に反映しにくい状況にあると思われる。今後、スバン DIC の活

[3] 中間レビュー調査報告書（英文）の 7. Recommendations - (2) にも記載。（付属資料２参照）

[4] 政府（DGLAHS）に登録することで、政府事業として認知され、政府予算の支出が可能となる。

[5] FAO ECTAD Annual Report 2012（収集資料）

[6] Participatory Diseases Surveillance and Response Program：全国の 2 千名の獣医師を対象に参加型地区疾病サーベイランスを実施（「詳細計画策定調査報告書」26 ページ参照）

[7] Australia Indonesia Partnership for Emerging Infectious Disease（AIP-EID）Operational Plan 2013（収集資料）

動を地域の家畜衛生対策の向上に具体的につなげていくためには、この点を踏まえ、情報の提供先や提供後の活用方法などについて、地方政府などの相手機関と連携していく必要があると考えられる。また、こうした成果の活用のための活動においては、同様の支援を行っているFAOやオーストラリアとも連携し、互いに不足している点を補うことで有機的に支援を進めることも重要ではないかと感じられた。

（2）疫学ラボの現状について

現在の疫学ラボでは、検査申請の受付、検査実施ラボの選定、結果の受理、データベースへの登録、検査報告書の作成といった診断支援業務を行っている。検査実施ラボの選定や検査報告書への診断結果の記入を行うDr. Sodilnは疫学ラボの所属ではなく、上位の技術部長であるが、これらの業務はラボの区分としては疫学ラボに属するとのことであった。また、疫学ラボでは、データベースに入力したデータについて、疾病ごと、検査法ごとに集計し、冊子の年報として取りまとめている。検査データの入力や、年報作成のための集計作業は、現状の疫学ラボの作業の多くの部分を占めていると考えられるが、パッシブ・サーベイランスのデータや無作為抽出によらないアクティブ・サーベイランスのデータ及びこれらが混じったデータは、DICの活動記録としての意味はあるものの、有病率の評価ができないなど、疫学情報としては活用できないことが多いことに注意する必要がある。なお、年報等における検査実績は、次のように区分され、それぞれパッシブ・サーベイランスとアクティブ・サーベイランスに分かれるので、その特性を理解して評価する必要がある。

① 申請数（受理された検査申請用紙の数に合致）
② 検体数（血液、糞便などの検査材料数）
③ 検査数（実施された検査の延べ回数。例えば、1つの血液材料について3つの疾病の検査が行われれば、検体数は1、検査数は3となる）

今後、疫学的な手法を用いたアクティブ・サーベイランスの計画策定、実施やデータの解析などの活動を重視するためには、これらの支援業務を整理・効率化することについて検討する必要が出てくるかもしれない。

（3）アクティブ・サーベイランスについて

これまでのアクティブ・サーベイランスについては、無作為抽出された検査材料でない（対象疾病の検査依頼があった個体について検査することもあるとのこと）こと、ワクチン接種歴などの検査対象家畜の履歴が明らかでないことが原因で、データから疾病の汚染状況などを把握することができなかったが、短期専門家による技術移転により、この点が大きく改善されつつあることが確認された。

現在計画（または実施）されているブルセラ病のサーベイランスは、3カ所の対象サイトにおいて、各地域の実態を踏まえ、関係地方政府等と連携しながら進められているものである。こうして得られたデータからは、地域別や家畜の疫学的特徴（産歴や畜種、飼養環境など）別の有病率が把握できるとともに、リスク要因や有効な対策についても検討可能な情報が得られるものと期待される。ただし、西ジャワ州やジャカルタ特別州といったワクチン接種地域の牛（水牛にはワクチン接種が行われない）で、血清学的検査で陽性となるワクチン

接種が行われている場合には、血清学的検査では有病率を把握できない問題がある。こうした場合には、対象サイトの農家や獣医師と連携し、流産牛を対象とした細菌学的サーベイランス（流産サーベイランス）を採用するなどの対応も検討する必要がある。

これらのブルセラ病のアクティブ・サーベイランスは、目的の設定、採材計画の作成、採材の実施、結果の分析、分析結果の活用という一連の手続きにのっとった、アクティブ・サーベイランスの実施に必要な技術を習得するためのモデルケースとして位置づけることができる。ブルセラ病のサーベイランスで得られた経験は、他の疾病を対象にアクティブ・サーベイランスを実施する場合にも十分活用できるものである。また、ブルセラ病のサーベイランスから得られた結果を州、県などに還元し、州、県が新たな防疫対策に活用するという構図が機能するようになれば、中央政府に所属する DIC がどのように地域の家畜防疫に貢献するのかという課題にひとつの筋道を示すことができるだろう。その意味では、疫学ラボでの技術移転が、パイロットサイトにおける実地疫学に重点を置いて行われていることは、疫学ラボの機能向上にとどまらず、スバン DIC の認知度の向上など包括的な効果が期待されるものといえる。

５－６　技術団員所感（家畜疾病診断）

（１）細菌ラボ

安全キャビネット、オートクレーブ、インキュベータ、冷凍・冷蔵庫等の検査機器が配置されており、良好に使用されている。培地、染色液などの試薬類も十分に整備されている。調査時はひな白痢の急速凝集反応を実施中であったが、ほかにブルセラの RBPT（ローズベンガル平板凝集反応）、CFT（補体結合反応法）も行っている。抗原類は国産品であるが CFT の溶血素、補体は日本製（デンカ生研）を使用している。以前は自家製であったが日本製に切り替えてから検査成績が安定している。炭疽菌の培養検査実績は少ないが ELISA による抗体検査は数多く行っている。細菌培養の知識・技術については自ら検査を組み立てられるレベルには達しておらず、目下習熟に励んでいるとのこと。

（２）寄生虫ラボ

顕微鏡、遠心分離器、冷凍・冷蔵庫などが整備されている。調査時は多数の糞便の虫卵検査が行われていた。血液塗抹標本を鏡検したところゴミも少なく良好に作成されており、顕微鏡の状態も良好であった。短期専門家から指導を受けた方法（pH6.8、3％ギムザ液）で作成しているとのことであった。しかし、ISO 認証は国内共通のマニュアルに記載された従来の方法（10％ギムザ液）で取得しているため、ISO に関する検査など、場合によっては従来の方法で作成しているとのことであった（従来の方法で作成した塗抹は、染色は濃いが pH が高すぎるように見受けられた）。C/P は短期専門家の方法が優れていることを理解していた。検査台の流しは染色液で汚れており、頻繁に作成していることがうかがわれた。

（３）病理ラボ

自動脱水包埋装置、パラフィンブロック作製装置、回転式ミクロトーム、自動染色装置（HE 染色）、クリオスタット（凍結切片作成装置）などが設置されている。いずれも状態は良好。調査時は自動脱水包埋装置が稼働中であったが、開放型であるためパラフィンブロッ

クを作成する部屋は有機溶媒、ホルマリン臭が感じられた。クリオスタットは豚コレラのFA 検査に用いるが、依頼はほとんどないとのこと（西ジャワ地域は豚が少なく、またワクチンでコントロールされている)。特殊染色は抗酸菌染色、グラム染色、PTAH などの染色液が見受けられた。パラフィンブロック、組織標本を確認したところ良好な出来であった。CCD カメラ付き顕微鏡も活用されており、調査時には HE 染色、IHC 染色標本を表示していた。

（4）バイオテクノロジーラボ

コンベンショナル PCR、リアルタイム PCR 装置が設置されている。コンベンショナルは豚コレラ、BVD、PRRS。リアルタイムは SYBR　Green 法を主に用いており、鳥インフルエンザ（AI）(Matrix、H5、H7、H9)、ニューカッスル病（ND)、狂犬病、IBR、H1N1、AD などが実施可能。プライマーは OIE マニュアル、文献情報などに従って作成している。陽性コントロールは分離株、ワクチンなどを使用している。施設面では遺伝子抽出（Qiagen、Invitrogen のキットを使用)、試薬調整、増幅、泳動・撮影など、各段階の部屋が分かれており、コンタミ防止に配慮されている。

（5）ウイルス・血清検査ラボ

倒立顕微鏡、炭酸ガス培養器、マイクロプレートリーダー、マイクロプレート洗浄機、安全キャビネットなどが設置されており、いずれも状態は良好。ELISA は狂犬病、BVD、IBR、豚コレラ、FMD、PRRS などを整備している。狂犬病以外は外国製のキットを使用している。狂犬病は国産品を使用しているが、国際獣疫局（OIE）が推奨する Biorad 社製と比べ劣っており、改良が必要となっている。AI、ND については HA、HI を行っている。各検査についての SOP を整備済みである。

（6）BSL2 ＋ラボ

主に人獣共通感染症を扱う検査室。陰圧制御を行い、高い封じ込め機能をもっている。AI、ND の発育鶏卵接種、犬、猫、サル脳の狂犬病の FA 検査、マウス脳内接種、炭疽菌の培養検査を行っている。入退室手順、事故時の対応など各種マニュアルが整備されている。C/P の説明も分かりやすく良好に運営されているように思われた。ヘパフィルターの交換などは外部に委託しているとのこと。

（7）その他

・SPF（特定疾患不在）発育鶏卵不足について

調査時は、育成鶏舎建設などの予算が認められ工事が始まっていた。完成後の 6 ～ 7 カ月間を外部からの SAN（Specific Antibody Negative）卵購入で賄えば解決できる見込みとのこと。長期専門家によると SPF 発育鶏卵は AI、ND のウイルス分離だけでなく CEF などの初代培養細胞の作製、それらによる各種鶏病のウイルス分離、AI の病原性確認、狂犬病ウイルス（CVS）の増殖など、用途は多岐にわたり非常に重要な検査資材である。また、FAO 関係者によるとインドネシア国内での SPF 発育鶏卵の入手は難しく、スバン DIC での生産、それにより AI ウイルス分離が行えることを高く評価しているとのことであった。

今後、十分な量の SPF 発育鶏卵を生産する体制を構築することが強く望まれる。

（８）全体的な所感

スバン DIC は施設、検査機器ともに新しいこともあるが、全体的に状態は良好で検査室内も清潔に保たれていた。また、検査室内は良い意味で適度に散らかっており、活発に検査が行われているものと思われた。各ラボでは ISO 認証の取得が行われ、関連する検査機器の点検状況が記録されている。その他の機器についても、記録は取っていないものの、毎日稼働状況を確認しているとのことであった。ISO 認証とも関連すると思われるが検査の SOP の整備も行われており、検査技術の継承、平準化などに有効に働くものと思われる。調査時に対応いただいた各ラボの C/P の説明ぶりは積極的であり、意欲的に検査業務に当たっているように感じられた。スバン DIC ラボの今後の発展が十分に期待できると思われる。

付　属　資　料

１．主要面談者

２．中間レビュー報告書（英文）

１．主要面談者

主要面談者リスト

	訪問先・面談者	Title
5/10 （金）	1) JICA インドネシア事務所 松浦　佳月 2) プロジェクト専門家 木嶋　眞人 前田　康之 3) 農業省畜産・動物衛生総局、 動物衛生局 Dr. Pudjiatmoko　（局長） Drh. M Syibli （サーベイランス課課長）	JICA Indonesia Office Project Formulation Advisor Chief Advisor/Animal Health Administration Project Coordinator/Animal Health Information Directorate General of Livestock and Animal Health Services (DGLAHS), Ministry of Agriculture (MoA) Director, Directorate of Animal Health (DAH), DGLAHS Head, Sub Directorate of Animal Disease Surveillance, DAH, DGLAHS
5/13 （月）	4) プロジェクト専門家 小池　生夫 5)スバン家畜疾病診断センター Drh. Liliek Indrayani　（所長） Drh. Sodirun　（技術部長） Drh. Rince Morita Butar-Butar （事務局長）	 Veterinary Diagnosis / Epidemiology Disease Investigation Center (DIC) Subang Director, DIC Subang Head, Veterinary Services Section (Virologist) Head, Administration (Bacteriologist)
5/14 （火）	5) スバン家畜疾病診断センター、C/P インタビュー 1. Drh. Bagyaningtyas A. 2. Ms. Euis Siti Mariamah 3. Drh. Isrok Malikus Sufi 4. Drh. Suharno 5. Mr. Dudi Widi Arahman 6. Mr. Adi Hidayat 7. Drh. Tri Juwianto 8. Mr. Eka Mahpudin 9.Mr. Dudi Iskandar	 Staff of Bacteriology Lab/ Staff of Administration Staff of Bacteriology Lab Staff of Parasitology Lab Coordinator of Parasitology Lab Staff of Parasitology Lab Staff of Parasitology Lab Coordinator of Pathology Lab Staff of Pathology Lab Staff of Veterinary Public Health Lab
5/15 （水）	5) スバン家畜疾病診断センター、C/P インタビュー 10. Drh. Witnahum Sodik	 Staff of Epidemiology Lab

	11. Ms. Selviyanti Nurustia	Staff of Epidemiology Lab
	12. Mr. Farman	Staff of Epidemiology Lab
	13. Mr. Redi	Staff of Epidemiology Lab
	14. Drh. Trian Mahawan	Coordinator of Virology Lab
	15. Drh. Yuli Yulianti	Staff of Virology Lab
	16. Mr. Afif Ibrahim	Staff of Serology Lab
	17. Ms. Fitri Diah Anggraeni	Staff of Virology Lab
	18. Mr. Ipat Himaktul Isro	Staff of Virology Lab
	19. Mr. Lukman	Staff of Biotechnology Lab
	20. Mr. Lukman Hakim	Maintenance, Staff of Administration
	21. Mr. Luki	Maintenance, Staff of Administration
	・JICA 供与機材現状調査	スバン DIC 各ラボ、事務所にて確認・写真撮影
5/16 （木）	6) 西ジャワ州チコレ B ラボ	Cikole B type Lab, West Java Province
	Drh. Emmy Rosiannie	Chief, Animal Source Food security Testing Section
	Drh. Nani Heudrayani	Chief, Animal Disease Testing and Animal Medicine Section
	Ms. Nina Ernaningsih	
	7) 西ジャワ州畜産局	Head, Administration / General Affaire Sub-Division
	Drh. Tine Nurasih	Livestock Service of West Java Province (DINAS)
		Veterinarian
5/17 （金）	8) バンテン州畜産局	Livestock Service of Banten Province (DINAS)
	Drh. Edi W. A.	Head, Animal Health Section
	Drh. Rina Herviana	Veterinarian, Animal Health Section
	Drh. Heirmayani	Veterinarian, Animal Health Section
	Ms. Lian Erliana	Staff, Animal Health Section
	Ms Ratna Arisa	Staff, Animal Health Section
	Mr. Anis Fuad	Staff, Animal Health Section
	Mr. Chawdra	Livestock Section
	Ms. Manik Rat Raya	Livestock Section
	9) バンテン州 B ラボ	B type Lab, Banten Province
	Drh. Aan Muawanah	Head, B type Lab
	Drh. Ari Sudjankanak	Veterinary Officer, Animal Health Service
	Drh. Novia M.	Veterinary Officer, Animal Health Service
	Ms. Edi Yasnan	Staff, Animal Health Service
	Ms. Ika Okataviane	Staff, Animal Health Service
5/20 （月）	10) イ国側レビューチーム	Joint Mid-term Review Team
	Drh. M. Farid AZ	JICA Management Unit Member, DGLAHS

	Drh. Nilma Lubis	Senior Veterinary Officer, Sub Directorate of Animal Disease Surveillance, DAH, DGLAHS
	Drh. Magawaty Iskandar	Veterinary Officer, Sub Division of International Cooperation and Public Relation, Planning Division, DGLAHS
	Drh. Dhony Kartika Nugroho	Veterinary Officer, Sub Directorate of Animal Disease Surveillance, DAH, DGLAHS
5/21 （火）	11) ジャカルタ特別州 Drh. Rudewi Drh. Dian Ariestiana Widiastuti 12) ジャカルタ特別州 B ラボ 13) 酪農コロニー視察	Livestock Service of DKI Jakarta Province (DINAS) Head, Animal Health Staff, Animal Health B type Lab, DKI Jakarta
5/22 （水）	14) スバン家畜疾病診断センター 調査団協議 Drh. Liliek Indrayani Drh. Rince Drh. Sodirun Drh. Isrok Drh. Sunarno Drh. Aji Barbora Drh. Tri Juwianto Drh. Ali Rahmowan	 Director, DIC Subang Head, Administration Head, Veterinary Service Section Ex- Coordinator, Parasitology Lab Coordinator, Biotechnology Lab Coordinator, Veterinary Public Health Lab Coordinator, Pathology Lab Coordinator, Bacteriology Lab
5/23 （木）	14) スバン家畜疾病診断センターラボ視察、インタビュー	
5/24 （金）	合同中間レビューチーム、レポート作成	
5/27 （月）	合同中間レビューチーム協議・署名	
5/28 （火）	プロジェクト合同調整委員会 JICA インドネシア事務所報告 所長 田中伸一 松浦佳月	JCC JICA Indonesia Office Representative Senior Representative Project Formulation Advisor

MINUTES OF MEETING
OF THE SECOND JOINT COORDINATING COMMITTEE
ON
THE MID-TERM REVIEW
FOR
THE PROJECT ON CAPACITY DEVELOPMENT
OF ANIMAL HEALTH LABORATORY

The Japanese Team organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Mr. Shiro NABEYA, visited the Republic of Indonesia from May 9 to 29, 2013 for the purpose of conducting Mid-Term Review of "the Project on Capacity Development of Animal Health Laboratory" (hereinafter referred to as "the Project").

For this purpose, the Japanese Team and the Indonesia authorities concerned formed the Joint Mid-Term Review Team (hereinafter referred to as "the Team"). The Team evaluated performance and achievement of the Project through field visits, interviews, and had a series of discussions in respect of desirable measures to be taken by the both sides for the successful implementation of the Project.

The Team agreed on the contents of the evaluation report attached and explained it to the members of the Joint Coordination Committee (hereinafter referred to as "the JCC"). The JCC discussed the issues and the revision of PDM, and agreed to reflect to the Project activity about the matters attached hereto.

Jakarta, May 28, 2013

Pudjiatmoko, DVM, Ph.D.

Director of Animal Health
Directorate General of Livestock and Animal Health Services
Ministry of Agriculture
Republic of Indonesia

Shinichi TANAKA

Senior Representative
Japan International Cooperation Agency
Indonesia Office

Attachment

1. The Joint Mid-Term Review Team presented the Joint Mid-Term Review Report shown in the Annex 1 to the JCC.

2. The JCC accepted the Report presented by the Team, and agreed to take necessary measures in order to meet recommendations raised by the Team.

3. The JCC had a discussion and agreed on the contents of revised PDM (ver.2.0) as shown in the ANNEX 2, which was explained by Mr. Yasuyuki Maeda, Project Coordinator.

Annex 1: Joint Mid-Term Review Report
Annex 2: Revised PDM (ver. 2.0)

Project Design Matrix (PDM)

ANNEX-2

Project Name Project on Capacity Development of Animal Health Laboratory
Target Group Staff of Diseases Investigation Center (DIC) Subang
Project Duration Four (4) years, July 17, 2011 – July 16, 2015
Project Site DIC Subang
Implementing Agency Directorate of Animal Health DGLAHS-MoA and JICA

Date: May 28, 2013
Version 2.0 (DRAFT)

Narrative Summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal Measures for animal disease control in West Java region (Jurisdictional region of DIC Subang) are strengthened.	1 Number of test samples for animal disease diagnoses at DIC Subang in West Java region increases 10% by the year of 2018 in comparison with the number in 2015. 2 Number of district where the animal disease control is monitored by DIC Subang amounts to all district required in West Java region by the year of 2018. 3 Number of awareness and technical support activity concerning animal health conducted by DIC Subang in West Java region goes up 20% by the year of 2018 in comparison with the number in 2015.	1 Monitoring Report 2 Monitoring Report 3 Monitoring Report, Survey on target groups in West Java region by DIC Subang (Terminal evaluation survey and final survey)	
Project Purpose The quality and quantity of animal disease diagnosis service at DIC Subang are improved.	1 The number and the kind of animal disease diagnosis at DIC Subang becomes more than 35,000 samples in a year and 16 kind at the end of the Project. 2 The feedbacks of diagnosis (Passive Surveillance) to the customers are returned promptly in prescribed days set by the Project. 3 The DIC Subang staff are ready to conduct Active Surveillance (Planning, Implementing, Monitoring and Feedback the results to next survey) on animal health considering with livestock / poultry industry promotion in the pilot sites more than 2 times/site in a year. 4 80% of inquired customers (stakeholders such as DINAS staff, Field vets, and Farmers) recognizes improvement of diagnosis services of DIC Subang by the end of the Project.	1 Monitoring Reports 2 Diagnosis records at DIC Subang 3 Observation at the time of mid-term review and terminal evaluation. 4 Monitoring Reports, The results of questionnaire survey on users at the time of mid-term review and terminal evaluation (questionnaire survey to be done by the project monitoring activity 2-5).	The measures and policies concerning of animal disease control will be implemented by the government of Indonesia continuously. Enough budget and personnel are allocated to DIC Subang for sustaining outcomes of the Project.
Outputs **Output 1** The DIC Subang staff obtain basic and systematic diagnosis for animal diseases. **Output 2** The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staff is strengthened. **Output 3**	1-1 The technical levels acquired on diagnostic tests in each laboratory (8 laboratories) of DIC Subang attain to the target levels set up in the "Project Technical Target Sheet" by June 2013. 2-1. More than one staff in DIC Subang are certified by the Project he/she is able to make a final diagnosis based on the result of tests in each laboratory. 2-2.Each laboratory chief in DIC Subang he/she is able to make an appropriate comments based on the result	1-1 The results of examination by the Project 2-1 Records of comments for diagnosis results 2-2The results of certification by the Project 3-1 Record of surveys	The staff of DIC Subang who have been transferred techniques by the Project are not transferred to other office during the Project period.

The capacity to conduct the surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staff is strengthened. **Output 4** The DIC Subang staff conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.	of tests in each laboratory. **3-1** Active surveillances on animal health are conducted annually with a framework (Planning, Implementing, Analyzing and feedback) by the staff of DIC Subang. **3-2** Each laboratory chief in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers. **4-1** DIC Subang (Vet. Information section) issues periodical Newsletter of animal health 2 times a year for laboratory workers, field vets and farmers in the three provinces by June 2012. **4-2** Each laboratory chief in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013. **4-3** Achievement rate of annual activity plan (set in 4-2) becomes more than 90% in the pilot site.	3-2 Records of Recommendations for animal disease control measures 4-1 Records of issued Newsletter 4-2 The plan and records of awareness and technical support activities 4-3 The plan and records of awareness and technical support activities	
Activities **Output 1** **1-1** The Staff of DIC Subang surveys the current capacities and needs in the diagnostic techniques at DIC Subang. **1-2** Based on the results of the survey, the staff of DIC Subang sets the necessary diagnostic techniques (kind of disease, diagnostic method etc.) and target levels of the techniques for each laboratory. **1-3** The staff of DIC Subang makes the plan of mastering diagnostic techniques for each laboratory in DIC Subang. **1-4** The staff of DIC Subang makes the list of trainer resources, for example, staff of other DICs, IRCVS, NVDAL, Vet Faculty of university, foreign experts etc. **1-5** The staff of DIC Subang learns the planned diagnostic techniques from the resources trainers through training in Indonesia, Japan or third country. **1-6** The staff of DIC Subang receives the diagnostic capability evaluation (including the proficiency tests) by resource trainers about the transferred diagnostic tests. **Output 2** **2-1** The staff of DIC Subang analyzes the current situation of sample flow and examinations at DIC Subang.	**Inputs** **<u>Indonesian side</u>** 1. Assignment of counterpart personnel 2. Salary, Travel expense, accommodation cost and daily allowance of counterpart personnel 3. Project office space and communication device etc. 4. Budget for operational cost for the Project implementation (electricity etc.) 5. Procurement of Reagents and consumables. **<u>Japanese side</u>** 1. Dispatch of Experts (1) Long-term Experts : - Chief Advisor / Animal Health Administration - Project Coordinator / Animal Health Information - Veterinary Diagnosis / Epidemiology (assigned in half period of the project) (2) Short-term experts: from Japan or from third country Relevant experts in specific subjects of animal health will be dispatched, when necessity arises, for the smooth implementation of the Project within the framework of the Project. 2. Counterparts training in Japan or in third country 3. Provision of machinery / equipment 4. Budget for operational cost for the Project implementation		Sufficient budget to conduct the necessary diagnosis is secured by Indonesian side.

2-2 The staff of DIC Subang analyzes the current situation of sample submission from the fields. **2-3** The staff of DIC Subang makes the plan of improved sample flow and examination system at DIC Subang. (Measures for the sample senders will be planed in Output 4) **2-4** The staff of DIC Subang conducts the improved diagnostic services. **2-5** The staff of DIC Subang monitors the improved diagnostic services (sample reception, diagnostic flow and customer's comment etc.) and conducts the feed-back to the system. **Output 3** **3-1** The staff of DIC Subang conducts preliminary surveys to select pilot site(s) from livestock / poultry industry promoted areas. **3-2** The staff of DIC Subang specifies the pilot site and some animal diseases for the surveys and control. **3-3** The staff of DIC Subang plans and conducts the surveys on animal health considering the specificity of promoted livestock / poultry sectors in the pilot site through cooperation with B/C type laboratories. **3-4** The staff of DIC Subang analyses the results of surveys and develops the recommendation reports to the authorities for the improvement of animal health situation. **3-5** The staff of DIC Subang organizes and conducts the monitoring of the animal health improvement for the follow-up of recommended activities and the feed-back. **Output 4** **4-1** The DIC Subang issues periodical Newsletters to provide and exchange information on animal health for laboratory workers, field vets and farmers in the 3 provinces of West Java region. **4-2** The staff of DIC Subang examines and conducts necessary measures of information exchange (on site meetings, etc.) for veterinary officers, laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories. **4-3** The staff of DIC Subang makes plans of sustainable activities of awareness and technical supports for improvement of animal health and production, which are necessary for laboratory workers, field vets and farmers in the pilot site. (Utilize other JICA projects outcomes such as a Flip-chart for dairy farmers.) **4-4** The staff of DIC Subang conducts sustainable activities of awareness and technical support for the laboratory workers, field vets and farmers in the		**Pre-Conditions**

pilot site through cooperation with B/C type laboratories. **4-5** The staff of DIC Subang organizes and conducts the monitoring and the feed-back of the results to the next actions.		

JOINT MID-TERM REVIEW REPORT

THE PROJECT ON CAPACITY DEVELOPMENT OF ANIMAL HEALTH LABORATORY

JAKARTA, MAY 27, 2013

鍋屋史朗	
Mr. Shiro NABEYA	Mr. M. Farid. AZ
Leader	Leader
Japanese Mid-term Review Team	Indonesian Mid-term Review Team
Japan International Cooperation Agency	Ministry of Agriculture
Japan	The Republic of Indonesia

1. Introduction

1-1 Objectives of the Mid-term Review

The Joint Mid-term Review on the Project on Capacity Development of Animal Health Laboratory (hereinafter referred to as the "Project") has been conducted by JICA and the Indonesian authorities concerned, as agreed in item 7 of Record of Discussion of the Project with the following objectives:

(1) To confirm the progress and achievement of the Project based on the PDM (Project Design Matrix) and PO (Plan of Operation), and identify the promoting/constraining factors.

(2) To analyze and evaluate the Project in terms of the five evaluation criteria (i.e. relevance, effectiveness, efficiency, impact and sustainability).

(3) To make suggestion and recommendations on actions to be taken during the latter half of the Project.

1-2 Members of the Joint Mid-term Review Team

The Joint Mid-term Review Team (hereinafter referred to as the "Team") was organized with the following members from both the Japanese and Indonesian sides.

(1) The Japanese Team

Assignment	Name	Present Occupation/ Position
Leader	Mr. Shiro NABEYA	Senior Assistant Director, Rural Development Department, JICA
Planning & Management	Mr. Makoto YAMANE	Advisor, Paddy Field Based Farming Area Division I, Rural Development Department, JICA
Livestock Disease Diagnosis	Mr. Tetsuya NAKAO, D.V.M., Ms.	Director, Microbiological Inspection Division, Department of Investigation and Research, Animal Quarantine Service, Ministry of Agriculture, Forestry and Fisheries (MAFF)
Veterinary Epidemiology	Mr. Takehisa YAMAMOTO, D.V.M., Ph.D.	Viral disease and Epidemiological Research Division, National Institute of Animal Health (NIAH) ,National Agriculture and Food Research Organization (NARO)
Evaluation Analysis	Ms. Yoshiko TAKAHASHI	Y's Consulting Office Co., Ltd.

(2) The Indonesian Team

Assignment	Name	Present Occupation/ Position
Leader	Mr. M. Farid. AZ,DVM	JICA Management Unit Member, DGLAHS
Member	Ms. Nilma Lubis, DVM	Senior Veterinary Officer, Sub Directorate of Animal Disease Surveillance, Directorate of Animal Health, DGLAHS
Member	Ms. Megawaty Iskandar, DVM	Veterinary Officer, Subdivision International Cooperation and Public Relation, Planning Division, DGLAHS

Member	Mr. Dhony Kartika Nugroho, DVM	Veterinary Officer, Sub Directorate of Animal Disease Surveillance, Directorate of Animal Health, DGLAHS

1-3 Status of the Report

This evaluation report was finalized by the Team. The major findings and recommendations will be delivered to and shared with the members of Joint Coordination Committee (JCC) on May 28, 2013 in Jakarta. The results of the discussion of JCC will be concluded in the Minutes of Meeting.

2. Outline of the Project

2-1 Background of the Project

Animal health has an important role in the livestock development for increasing the productivity of livestock as well as human safety concerning zoonosis and livestock products. Indonesia has been tackling the control and eradication of major contagious animal diseases such as highly pathogenic avian influenza (HPAI), Brucellosis, Rabies and Anthrax. Early detection and prompt response for these diseases is required in order to minimize economic loss and prevent infection to human as well as animals. In order to support animal health program, Disease Investigation Centers (DIC) are established under Directorate General of Livestock Services and Animal Health Services (DGLAHS). DIC are regional laboratories named as "A type laboratories" to diagnosis animal disease, covering several provinces. Beside A type laboratories, "B and C type Laboratories" are located structurally and administratively under provincial and district level. Since Indonesia has three types of laboratory (A, B and C), the system for investigation and control is the responsibility of the central government, but the budget allocation for B and C laboratories is provided by the local government and also supported by the central government, especially for outbreak of strategic diseases. Indonesia has implemented "The Grant Aid Project for Improvement on Animal Health Laboratory for Avian Influenza and other Strategic Animal Disease" since 2007, in cooperation with Japan. The purpose of the Grant Aid Project is to renovate DIC Medan and Lampung and to establish a new DIC in Subang in order to carry out the National Strategic Plan for Avian Influenza Control steadily and properly. The Grant Aid Project was completed at the end of March in 2009. DIC play a key role in Surveillance and diagnosis of animal diseases including zoonosis in the regions.

Prompt and precise laboratory diagnosis against these diseases is required in order to minimize economic loss and prevent infection to human as well as animals. It is important to improve functions of low-end animal health facilities. Those existing facilities retain a lot of constraints such as shortage of diagnosis techniques, inadequate facilities and human resources, etc. Further it is necessary to collect required information swiftly and correctly from each region of the country, in order to make administrative service on animal health more efficient. Therefore, under decentralization, it is seen as a

important subject to develop the capacity of related animal health laboratories toward safer community for both animal and human in Indonesia.

2-2 Framework of the Project

(1) Project Period

From July 17, 2011 to July 16, 2015 (4 years)

(2) Implementing Agency of the Project

Directorate of Animal Health, Directorate General of Livestock and Animal Health Services (DGLAHS), Ministry of Agriculture (MOA)

(3) Project Site

Disease Investigation Center (DIC) Subang

(4) Master Plan of the Project

1) Overall Goal

Measures for animal disease control in West Java area (Jurisdictional area of DIC Subang) are strengthened.

2) Project Purpose

The quality and quantity of animal disease diagnosis service at DIC Subang are improved.

3) Outputs

3)-1 The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases.

3)-2 The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staff is strengthened.

3)-3 The capacity to conduct surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.

3)-4 The DIC Subang staffs conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.

(5) Administration of the Project

1) Project Director: Director General of DGLAHS, MOA

2) Project Manager: Director of Directorate of Animal Health (DAH), DGLAHS, MOA

3) Deputy Project Manager:

- Head of Disease Surveillance Sub-Directorate, DAH, DGLAHS, MOA
- Director of DIC Subang, DAH, DGLAHS, MOA

4) Counterparts: Related staff in DIC Subang

3. Methodology of the Review

The Team evaluated the Project based on the Project Design Matrix (hereinafter referred to as "PDM") agreed upon by both Japanese and Indonesian sides as a basis of the evaluation. Achievement of the Project was studied by collecting data on the verifiable indicators set in the PDM and other relevant information. The Team conducted evaluation on the five (5) criteria, namely Relevance, Effectiveness, Efficiency, Impact and Sustainability, the content of which is stated below.

3-1 Project performance

Based on the results, achievement of the Outputs and the Project Purpose was measured in terms of the Objectively Verifiable Indicators of the PDM.

3-2 Implementation Process

Implementation process of the Project was examined to see if activities had been implemented according to the schedule described in PO, to see if the Project had been managed properly, and to identify obstacles and/or facilitating factors that had affected the implementation process.

3-3 Criteria of Evaluation

(1) Relevance

Relevance is reviewed and justified by the project purpose and the overall goal in connection with the needs of the beneficiaries, policies of the Government of the Republic of Indonesia, DIC Subang, the Government of Japan, appropriate strategies and measures.

(2) Effectiveness

Effectiveness is assessed by evaluating the effect to which the Project has achieved by the Project implementation and contribution to the target group of the Project.

(3) Efficiency

Efficiency is analyzed focusing on the relationship between the output and input in terms of timing, quality and quantity.

(4) Impact

Impact is identified and/or prospected by referring to direct and indirect, positive and negative impacts caused by the Project.

(5) Sustainability

Sustainability is assessed in organizational, financial and technical aspects by examining the extent to which the achievement of the Project will be sustained and/or expanded after the Project is terminated.

3-4 Data collection method

(1) Review of reports & data submitted or recorded by the Project

(2) Discussion, interviews & questionnaire survey with the Project stakeholders

4. Performance of the Project

4-1 Actual Inputs

(1) Indonesian Side

- Allocation of Counterparts

  A total of 52 counterparts has been allocated to the Project by the time of Mid-term Review. The list of Counterparts allocation is attached in ANNEX-6.

- Allocation of Local Trainer Resources

  A total of 13 Indonesian trainers from the "List of Trainer Resources" prepared by staffs of Subang DIC in the Project activity have been dispatched for the training and workshop organized by the Project.

- Local Cost

  The Indonesian side allocated budget in the total amount of 23,485,548,000 Indonesian Rupiah for the Project implementation from January 2011 to December 2012. The budget born by the Indonesian side is presented in ANNEX-9.

- Building, Facilities, Land

  The facilities to accommodate the Project have been provided to the Project as shown in ANNEX-10.

(2) Japanese Side

- Dispatch of Experts

  A total of 63 MM Long-term experts (3 persons) and 16.5MM (8 times/6 persons) Short-term experts have been dispatched by the time of Mid-term Review. The list of the experts is attached in ANNEX-5.

- Training of the counterparts in Japan

  A total of 9 counterparts have been dispatched to Japan for technical trainings. The list of trained personnel is indicated in ANNEX -7.

- Training of the counterparts in the third country

  A total of 3 counterparts have been dispatched to training on Diagnosis & surveillance of Brucellosis for one week in Thailand and Malaysia.

- Provision of Equipment

  Equipment were provided as shown in ANNEX-8, by which approximately 1,627,265,755

Indonesian Rupiah was disbursed by the time of Mid-term Review.

- Local Cost Sharing

  The Japanese side bore a part of the Project's local cost to effectively implement the Project. A total of 1,643,805,380 Indonesian Rupiah was born by the Japanese side in 2011 and 2012. The supplementary fund made by the Japanese side is presented in ANNEX-9.

4-2 Achievement of Outputs

Output 1

The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases.

Most C/Ps in DIC Subang have received almost all diagnosis techniques on the Target Goal sheet in each laboratory (hereinafter referred to as "Target sheet") in ANNEX-17 initially planned in each laboratory (7 laboratories*) based on the results of baseline survey conducted in December 2011 (hereinafter referred to as "the baseline survey"). The target levels set up in the "Target sheet" is likely to be attained. Also, continuous experiences gain is still required in all laboratories.

Virology and Biotechnology laboratories have received proficiency tests by Australia Animal Health Laboratory (AAHL), a reference laboratory of the World Organization for Animal Health (OIE), and DICs such as DIC Lampung, DIC Bukittinggi, DIC Wates and DIC Denpasar, Bali.

*Serology laboratory is included into the Virology laboratory's "Target sheet".

Output 2

The Capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staff is strengthened.

The baseline survey was conducted at the initial stage of the Project to improve the current situation of the sample flow. A new flow has been developed and is still being revised continuously by the epidemiology laboratory and other related laboratories. Recently, the required days for every inspection have been determined for providing the customer oriented diagnosis services.

Regarding Objectively Verifiable indicator for Output 2, currently one veterinary staff is rotated monthly to make comments on the results sheet based on the test results of each laboratory, in which further recommendations will be made by the technical manager.

Output 3

The capacity to conduct the surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.

Disease Surveillance activities according to the new framework transferred by the Japanese expert has been conducted by the staffs of DIC Subang in the selected pilot sites in three provinces and will still be

conducted in a future. The implementation plans based on the discussions with the three provincial DINASs and the baseline survey results to grasp stakeholders' situations were developed by the Epidemiology laboratory. Moreover, staffs of DIC Subang also provide some technical training prior to the surveillance for laboratory officers and field veterinarians in the pilot sites. Therefore, the system that all veterinary staff and paramedic staff participate in disease surveillance was established in DIC Subang.

Output 4

The DIC Subang staffs conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.

Some activities have been implemented by the moment of Mid-term Review; 1) Awareness brochures of livestock disease were distributed to DINAS (provincial, district), cooperatives and farmers. 2) Laboratory workers in B/C type laboratories were invited to several seminars & trainings by short-term experts organized by the Project. 3) On-site-spots technical supports for laboratory workers, field vet and farmers during the active surveillances. 4) Instead of the newsletter, web site of DIC Subang was developed to provide information on a regular basis. However, the accessibility of farmers to the web site is to be considered. The awareness and technical support activities will be fully in progress from 2013. Regarding the progress of activities implementation for Output 4, it seems behind due to insufficient activities on these activities so far.

4-3 Achievement of the Project Purpose

Project Purpose

: The quality and quantity of animal disease diagnosis service at DIC Subang are improved.

The number and kind of animal disease diagnosis at DIC Subang has exceeded targeted numbers of 35,000 samples and 16 diseases by reaching 47,466 and 23 each at the end of the year 2012. The possible factors for this increase were the increase of total number of active surveillance and AI incidences at the end of the year 2012. Regarding indicator 2, recently the required days for every inspection have been determined for providing the customer oriented diagnosis services. Regarding indicator 3, the staffs of DIC Subang have already conducted comprehensive Active Surveillance processes to the new framework in three provinces. According to the indicator 4 "80% of inquired customers (stakeholders such as DINAS staffs, field vets, and farmers) recognizes improvement of diagnosis services of DIC Subang by the end of the Project"; One provincial DINAS and two B-type laboratories have evaluated that DIC Subang has gradually improved in regards to their performances of diagnosis techniques, trainings and seminars. In addition to that, the "Disease Map" provided by DIC Subang annually is considered to be very useful.

4-4 Implementation Process

(1) Transfer of trained C/Ps personnel

In order to make use of their acquired techniques in Japan, DIC Subang assigned one trained personnel to Pathology laboratory and the other one to the Parasitology laboratory in 2012 after they returned from 7 months training in Japan. This has motivated them and they have been actively utilizing their knowledge and skills learned in Japan.

On the other hand, one who was chief of Bacteriology laboratory and dispatched for 3 months training in Japan in 2009 was transferred to the position of administration head in 2012. One who was dispatched for 7 months training in Japan in 2012 was assigned concurrently with the Bacteriology laboratory and administration work in January 2013 after return from Japan, and she cannot focus on the laboratory work. Moreover, one chief of Parasitology laboratory who was dispatched for 2 months training in 2010 was transferred to DGLAHS in March 2013.

(2) Staffing for maintenance of "cell culture" improvement

Cell culture including primary cells and established cell lines is difficult to be carried on without personnel being intensively engaged in the work. Since the Project initiation, Japanese long-term expert has been engaged in the work mainly and tried to transfer knowledge to the several laboratory staffs. At the time of Mid-term Review, one staff of Serology laboratory is assigned to cell culture laboratory, although the staff is still responsible another important affaires in Bio Safety Lab.

(3) Facility development

Facilities and equipment granted by the Japanese Grand Aid have been utilized, and other necessary facilities for the Project, such as dormitory, public health laboratory, generator facility and workshop building have been constructed by Indonesian budget.

(4) Dispatch of short-term experts

Eight Japanese short-term experts were dispatched, in which seven of them were dispatched from National Institute of Animal Health of Japan (hereinafter referred to "NIAH") Out of the eight Japanese short-term experts, four were dispatched repeatedly. In addition, NIAH conducted the training for the Indonesian C/Ps. These factors contribute to the efficiency of the Project implementation.

5. Results of Evaluation by Five Criteria

Results of the evaluation with five criteria are described as follows. Details of each evaluation item can be referred to the Evaluation Grid attached in ANNEX-3.

The degrees of evaluation are High, Moderately High, Moderate, Moderately Low, and Low.

5-1 Relevance

Relevance of the Project is High.

Overall Goal and Project Purpose are consistent with Project Purpose of the Project, "The quality and quantity of animal disease diagnosis service at DIC Subang are improved." and Overall Goal "Measures for animal disease control in West Java region (Jurisdictional area of DIC Subang) are strengthened." are still consistent with the needs of the Target Group of the Project (Staff of DIC Subang) and with the Indonesian National Policy and "The livestock industry development mid-term plan 2010 -2014" designed by the Ministry of Agriculture. Moreover, "Law of the Republic of Indonesia number 18 year-2009 Regarding Animal Husbandry and Animal Health " were newly recognized and proclaimed in May, 2009 in Parliament.

At the time of ex-Ante Evaluation, the Project was considered relevant to Japan's ODA policies to Indonesia as being under one of the priority areas of the policy: "Support for democracy and equitable stable society", since agricultural and rural development was an important factor to attain "Poverty Reduction" as a pillar within the priority area.

At the time of the Mid-term Review, priority area of Japan's ODA policies to Indonesia have changed as follows:

- Support for further economic growth,
- Support for reducing disparities and building of a safe and secure society, and,
- Support for improvement of the capacity to respond to challenges in the Asian region and the international community.

The Project is still relevant with above new policies, since it aims at introducing animal disease diagnosis techniques to the DIC Subang, thereby strengthened measures for animal health control in West Java region (Jurisdictional area of DIC Subang).

5-2 Effectiveness

Effectiveness of the Project is Moderately High.

The number and kind of animal disease diagnosis at DIC Subang has exceeded targeted numbers of 35,000 samples and 16 diseases by reaching 47,466 and 23 each at the end of the year 2012. The possible factors for this increase were the increase of total number of active surveillance and AI incidences at the end of the year 2012. The contributions of four Outputs for the achievement of Project Purpose are

mostly by Output 1 and also partly by Output 2 and Output 3. The Project Purpose is likely to be achieved by the end of the Project in July 2015.

5-3 Efficiency

Efficiency of the Project is Moderate.

Some of the trained C/Ps by the Project were shifted to other positions, in which was inconsistent to the Project activities for producing planned Outputs, due to insufficient allocation of administrative personnel to DIC Subang by Indonesian side. As a result, those trained C/Ps were not utilized to their fullest. The "List of Trainer Resources" was developed according to the activity 1-4 in PDM for utilizing local resources as the trainers. A total of 13 Indonesian trainers were dispatched to conduct trainings and workshops in DIC Subang so far and further utilization of local trainers is expected. Eight Japanese short-term experts were dispatched, in which seven of them were dispatched from NIAH of Japan. Out of the eight Japanese short-term experts, four were dispatched repeatedly. In addition, NIAH conducted the training for the Indonesian C/Ps. These factors contribute to the efficiency of the Project implementation.

5-4 Impact

Some positive Impacts are observed as follows and no negative impacts are observed at the time of the Mid-term Review.

(1) Prospect achievement of Overall Goal

It is too early to assess the prospect achievement of Overall Goal by the indicators set in PDM at the time of Mid-term Review. However, there are some achievements observed as follows.

1) The numbers of test samples are exceeded indicator of Project Purpose and reached 47,466 samples by the end of the year 2012. And also, DIC Subang monitors 37 districts out of 41 by the end of the year 2012.

2) On the other hand, one or two customers still have skeptical look on improvement of DIC Subang services (according to the result of interview to customers). If DIC Subang change the customers' perception by their improved services at the end of the Project, customers' skeptical look might be omitted from the inhibiting factors in order to achieve Overall Goal.

(2) Other positive Impacts are also observed as follows.

1) In Banten province, provincial DINAS reports that because of the preparation workshop organized by DIC Subang for the implementation of the Brucellosis surveillance in 2013, In Banten province, provincial DINAS reports that during the implementation of the Brucellosis surveillance in 2013, commitments, coordination and communications of provincial and district governments are increased.

2) Bio Safety Maintenance Seminar held at DIC Subang was organized by DGLAHS in collaboration with FAO and WHO on March 6, 2013. It could be considered that the facilities granted by Japanese Grant Aid and the Project in DIC Subang promoted other donors' interest.

3) DIC Subang's services for the provinces of West Java, DKI Jakarta and Banten, if compared when the three provinces were under DIC Wates, has increased because the coverage area is more accessible therefore the frequency of services increased as well.

5-5 Sustainability

Prospect Sustainability of the benefits of the Project is moderately High.

Strengthen measures for animal disease control in West Java region, in which also include Jakarta, will be one of the key strategies of animal disease control of the Indonesian government's policy. Budget of DIC Subang has been provided sufficiently during the Project implementation and DGLAHS has shown the commitment to secure the budget of providing animal diagnosis services of DIC Subang to be fully improved for West Java region. The capacity of DIC Subang is gradually improving by transferred diagnosis techniques and learning from Passive and Active diagnosis surveillance. However it is too early to prospect technical sustainability of the DIC Subang since some activities will still need to be implemented in the remaining two years according to the Plan of Operation. Also, if the Project implemented those remaining activities to produce Output 2, Output 3 and Output 4 as planned, it is hoped that a system to provide customer oriented services will be developed. Based on the above information, not only technical sustainability but also institutional sustainability will be secured.

6. Conclusion

The Team came to the following conclusion:

It is observed that the capacity of DIC Subang has been gradually developed through the Project activities. It will be prospected that the Project Purpose would be achieved if continuous efforts of relevant people and organizations would be done, however, following recommendations will be helpful to further promotion and sustainability of the Project. Collaboration among DIC Subang, provincial and district DINAS including B/C type-Lab is also expected further to attain the Overall Goal.

7. Recommendations

The Team recommends the following points based on this survey.

(1) Longer assignment of C/P to appropriate position in DIC Subang during the project period

As mentioned in 5-2 Efficiency, some key technical staff are posted to un-expected position after training in Japan. Regular personnel transfer of government staff is unavoidable, however four years of the Project period is very limited but important opportunity for them to learn and acquire knowledge and practical experience while working with Japanese and other country's experts. As mentioned in Important Assumption of PDM, it would be highly expected that the staffs of DIC Subang who have been transferred techniques by the Project are not transferring to other office during the Project.

(2) Systematical collaboration among DIC Subang, provincial and district DINAS including B/C-type Lab.

Decentralization can sometimes be challenging, especially collaboration between DIC and provincial and district DINAS. Active surveillance in Output 3 provides good opportunity for them to control animal disease efficiently and effectively. If success, this case would be expected to share with other region through DGLAHS.

(3) Application of new methods introduced by the Project should be reflected to the national manual

Japanese experts to Parasitology lab have introduced more improved method to achieve higher testing accuracy. It would be expected that DGLAHS would revise the national manual (Manual Standar Methoda Diagnosa, Laboratorium Kesehatan Hewan (1999) SOP) and publish a new manual.

(4) Revision of OVI (Objectively Verifiable Indicators) of PDM

The Team recommends to revise the current PDM (ver. 1.0) and proposes the revised OVI with

reasons of change shown in the ANNEX 18 and revised PDM (ver. 2.0) in the ANNEX-19.

(5) Implementation of Laboratory Management

After adopting all the technology from the Project, DIC Subang is expected to develop and implement further laboratory management according to the international standard which includes the safety of the employees, laboratory staff and the environmental health.

8. Lessons Learnt

(1) Improvement of Indonesian Training System

Currently in Indonesia, short-term duration training is mainly conducted as an internal training scheme. After observing this project, Indonesian evaluation team strongly suggested that long-term duration training should be applied in the internal training program implemented by their own effort as it is considered to be more useful and beneficial.

(2) Development of Local Resource List at initial stage of the Project.

"List of Trainer Resources" was developed by the C/Ps as one of the activities and thirteen trainers were dispatched to the Project. It is observed that they contributed to the Project from view point of efficiency and sustainability. Grasping candidates of local experts and developing list of them at the initial stage is highly useful.

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Project Design Matrix (PDM) ANNEX-1

Project Name Project on Capacity Development of Animal Health Laboratory
Target Group Staff of Diseases Investigation Center (DIC) Subang
Project Duration Four (4) years, July 17, 2011 – July 16, 2015
Project Site DIC Subang
Implementing Agency Directorate of Animal Health DGLAHS-MoA and JICA

Date: March 14, 2012
Version 1

Narrative Summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal Measures for animal disease control in West Java area (Jurisdictional area of DIC Subang) are strengthened.	**1** Number of test samples for animal disease diagnoses at DIC Subang in West Java area increases 10% by the year of 2018 in comparison with the number in 2015. **2** Number of district where the animal disease control is monitored by DIC Subang amounts to 39 of all 39 districts in West Java area by the year of 2018. **3** Number of awareness and technical support activity concerning animal health conducted by DIC Subang in West Java area goes up 20% by the year of 2018 in comparison with the number in 2015.	1 Monitoring Report 2 Monitoring Report 3 Monitoring Report, Survey on target groups in West Java area by DIC Subang (Terminal evaluation survey and final survey)	
Project Purpose The quality and quantity of animal disease diagnosis service at DIC Subang are improved.	**1** The number and the kind of animal disease diagnosis at DIC Subang becomes more than 35,000 samples in a year and 16 kind at the end of the Project. **2** The feedbacks of diagnosis (Passive Surveillance) to the customers are returned promptly in prescribed days set by the Project. **3** The DIC Subang staffs are ready to conduct Active Surveillance (Planning, Implementing, Monitoring and Feedback the results to next survey) on animal health considering with livestock / poultry industry promotion in the pilot sites more than 2 times/site in a year. **4** 80% of inquired customers (stakeholders such as DINAS staffs, Field· vets, and Farmers) recognizes improvement of diagnosis services of DIC Subang by the end of the Project.	1 Monitoring Reports 2 Diagnosis records at DIC Subang 3 Observation at the time of mid-term review and terminal evaluation. 4 Monitoring Reports, The results of questionnaire survey on users at the time of mid-term review and terminal evaluation (questionnaire survey to be done by the project monitoring activity 2-5).	The measures and policies concerning of animal disease control will be implemented by the government of Indonesia continuously. Enough budget and personnel are allocated to DIC Subang for sustaining outcomes of the Project.
Outputs **Output 1** The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases. **Output 2** The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staffs is strengthened. **Output 3** The capacity to conduct the surveys and the technical support of animal	**1-1** The technical levels acquired on diagnostic tests in each laboratory (8 laboratories) of DIC Subang attain to the target levels set up in the "Project Technical Target Sheet" by June 2013. **2-1** 18 veterinary staffs in DIC Subang are certified by the project that he/she is able to make a comprehensive diagnostic judgment based on the results of tests in each laboratory. **3-1** 18 veterinary staffs in DIC Subang reach to 75% comprehension level of conducting surveillance on	1-1 The results of examination by the Project 2-1 The results of certification by the Project 3-1 Record of surveys, Results of comprehension test	The staffs of DIC Subang who have been transferred techniques by the Project are not transferred to other office during the Project period.

1/3

disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.	animal health (Planning, Implementing, Monitoring and Feedback the results to next survey).		
	3-2 8 veterinary staffs in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers.	3-2 Records of Recommendations for animal disease control measures	
Output 4 The DIC Subang staffs conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.	**4-1** DIC Subang (Vet. Information section) issues periodical Newsletter of animal health 2 times a year for laboratory workers, field vets and farmers in the three provinces by June 2012.	4-1 Records of issued Newsletter	
	4-2 8 veterinary staffs in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013.	4-2 The plan and records of awareness and technical support activities	
	4-3 Achievement rate of annual activity plan (set in 4-2) becomes more than 90% in the pilot site.	4-3 The plan and records of awareness and technical support activities	
Activities **Output 1** **1-1** The Staff of DIC Subang surveys the current capacities and needs in the diagnostic techniques at DIC Subang. **1-2** Based on the results of the survey, the staff of DIC Subang sets the necessary diagnostic techniques (kind of disease, diagnostic method etc.) and target levels of the techniques for each laboratory. **1-3** The staff of DIC Subang makes the plan of mastering diagnostic techniques for each laboratory in DIC Subang. **1-4** The staff of DIC Subang makes the list of trainer resources, for example, staffs of other DICs, IRCVS, NVDAL, Vet Faculty of university, foreign experts etc. **1-5** The staff of DIC Subang learns the planned diagnostic techniques from the resources trainers through training in Indonesia, Japan or third country. **1-6** The staff of DIC Subang receives the diagnostic capability evaluation (including the proficiency tests) by resource trainers about the transferred diagnostic tests. **Output 2** **2-1** The staff of DIC Subang analyzes the current situation of sample flow and examinations at DIC Subang. **2-2** The staff of DIC Subang analyzes the current situation of sample submission from the fields. **2-3** The staff of DIC Subang makes the plan of improved sample flow and	**Inputs** **Indonesian side** 1. Assignment of counterpart personnel 2. Salary, Travel expense, accommodation cost and daily allowance of counterpart personnel 3. Project office space and communication device etc. 4. Budget for operational cost for the Project implementation (electricity etc.) 5. Procurement of Reagents and consumables. **Japanese side** 1. Dispatch of Experts (1) Long-term Experts : - Chief Advisor / Animal Health Administration - Project Coordinator / Animal Health Information - Veterinary Diagnosis / Epidemiology (assigned in half period of the project) (2) Short-term experts: from Japan or from third country Relevant experts in specific subjects of animal health will be dispatched, when necessity arises, for the smooth implementation of the Project within the framework of the Project. 2. Counterparts training in Japan or in third country 3. Provision of machinery / equipment 4. Budget for operational cost for the Project implementation		Sufficient budget to conduct the necessary diagnosis is secured by Indonesian side.

2/3

examination system at DIC Subang. (Measures for the sample senders will be planed in Output 4) **2-4** The staff of DIC Subang conducts the improved diagnostic services. **2-5** The staff of DIC Subang monitors the improved diagnostic services (sample reception, diagnostic flow and customer's comment etc.) and conducts the feed-back to the system. **Output 3** **3-1** The staff of DIC Subang conducts preliminary surveys to select pilot site(s) from livestock / poultry industry promoted areas. **3-2** The staff of DIC Subang specifies the pilot site and some animal diseases for the surveys and control. **3-3** The staff of DIC Subang plans and conducts the surveys on animal health considering the specificity of promoted livestock / poultry sectors in the pilot site through cooperation with B/C type laboratories. **3-4** The staff of DIC Subang analyses the results of surveys and develops the recommendation reports to the authorities for the improvement of animal health situation. **3-5** The staff of DIC Subang organizes and conducts the monitoring of the animal health improvement for the follow-up of recommended activities and the feed-back. **Output 4** **4-1** The DIC Subang issues periodical Newsletters to provide and exchange information on animal health for laboratory workers, field vets and farmers in the 3 provinces of West Java area. **4-2** The staff of DIC Subang examines and conducts necessary measures of information exchange (on site meetings, etc.) for veterinary officers, laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories. **4-3** The staff of DIC Subang makes plans of sustainable activities of awareness and technical supports for improvement of animal health and production, which are necessary for laboratory workers, field vets and farmers in the pilot site. (Utilize other JICA projects outcomes such as a Flip-chart for dairy farmers.) **4-4** The staff of DIC Subang conducts sustainable activities of awareness and technical support for the laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories. **4-5** The staff of DIC Subang organizes and conducts the monitoring and the feed-back of the results to the next actions.		**Pre-Conditions**

Plan of Operation (PO) ANNEX-2

Project Name: Project on Capacity Development of Animal Health Laboratory

TG: Staff of DIC Subang **Project Site:** DIC Subang Version 1

Implementing Agency: Directorate General of Livestock and Animal Health Services (DGLAHS) - MoA and JICA **Duration:** Four (4) years

Project Purpose: The quality and quantity of animal disease diagnosis service at DIC Subang are improved. **Date: March 14, 2012**

Outputs and Activities		Duration (weeks)	2011		2012				2013				2014				2015		Person in charge (Name)	Personnel (Names)	Technical Transfer		Materials & Equipment
			III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II			From	To	
Activity 3-1	The staff of DIC Subang conducts preliminary surveys to select pilot site(s) from livestock / poultry industry promoted areas.	12weeks		xxx															Mr. Satriyo	Mr. Sunarno, Mr. Sodic	Expert	CPs	GPS, Car, Handycam, Field Equip., consumable
3-2	The staff of DIC Subang specifies the pilot site and some animal diseases for the surveys and control.	8 weeks			xx														Mr. Putut	Mr.Ali, Mr. Satriyo	Expert/ CPs	CPs	
3-3	The staff of DIC Subang plans and conducts the surveys on animal health considering the specificity of promoted livestock / poultry sectors in the pilot site through cooperation with B/C type laboratories.	48 weeks						xxx		xxx		xxx		xxx					Mr. Isrok	Mr. Afif, Mr. Guswanto	Expert	CPs	GPS, Car, Handycam, Field Equip., consumable
3-4	The staff of DIC Subang analyses the results of surveys and develops the recommendation reports to the authorities for the improvement of animal health situation.	4 weeks							x		x		x		x				Mr. Putut	Mr. Dudi I, Mr. Puttik, Mr. Lukman	Expert	CPs	PC, Note PC
3-5	The staff of DIC Subang organizes and conducts the monitoring of the animal health improvement for the follow-up of recommended activities and the feed-back.	After the report							x		x		x		x				Mr. Satriyo	Ms.Euis, Mr. Ipat	Expert	CPs	Car
Output 4	**The DIC Subang staffs conduct the continuous support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health in the pilot sites.**																						
Activity 4-1	The DIC Subang issues periodical Newsletters to provide and exchange information on animal health for laboratory workers, field vets and farmers in the 3 provinces of West Java area.	4 years (1st issue in the six months)		x		x		x		x		x		x		x		x	Mr. Putut	Mr. Satriyo, Mr. Sodik.	Expert	CPs	Camera, PC, Printer, Laptop
4-2	The staff of DIC Subang examines and conducts necessary measures of information exchange (on site meetings, etc.) for veterinary officers, laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories.	4 years			xxx				xxx				xxx				xxx		Mr. Putut	Mr. Trian, Mr.Lukman	Expert	CPs	Car
4-3	The staff of DIC Subang makes plans of sustainable activities of awareness and technical supports for improvement of animal health and production, which are necessary for laboratory workers, field vets and farmers in the pilot site. (Utilize other JICA projects outcomes such as a Flip-chart for dairy farmers.)	4 years				xxx				xxx				xxx				xxx	Mr. Satriyo	Ms. Yuli, Mr. Sodik, Mr. Ai, Mr. Ifaf	Expert	CPs	
4-4	The staff of DIC Subang conducts sustainable activities of awareness and technical support for the laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories.	2 - 4 years						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	Mr. Putut	All staffs DIC Subang	Expert CPs	Veterinary Workers / Farmers	Car
4-5	The staff of DIC Subang organizes and conducts the monitoring and the feed-back of the results to the next actions.	1- 4 years (annually)							x				x				x		Mr. Sodirun	Mr. Putut, Mr. Sodic, Mr. Satriyo	Expert	CPs	PC

Plan of Operation (PO) **ANNEX-2**

Project Name: Project on Capacity Development of Animal Health Laboratory

TG: Staff of DIC Subang **Project Site:** DIC Subang **Version 1**

Implementing Agency: Directorate General of Livestock and Animal Health Services (DGLAHS) - MoA and JICA **Duration:** Four (4) years

Project Purpose: The quality and quantity of animal disease diagnosis service at DIC Subang are improved. **Date: March 14, 2012**

Outputs and Activities		Duration (weeks)	2011		2012				2013				2014				2015		Person in charge (Name)	Personnel (Names)	Technical Transfer		Materials & Equipment
			III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II			From	To	
Output 1	**The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases.**																						
Activity 1-1	The Staff of DIC Subang surveys the current capacities and needs in the diagnostic techniques at DIC Subang.	14 weeks	x																Mr. Sodirun	All related staffs of DIC Subang	Experts	CPs (All)	Chemical, Reagent
1-2	Based on the results of the survey, the staff of DIC Subang sets the necessary diagnostic techniques (kind of disease, diagnostic method etc.) and a target levels of the techniques for each laboratory.	8 weeks	x	x															Mr. Sodirun	All staffs of DIC Subang	Expert	CPs (All)	
1-3	The staff of DIC Subang makes the plan of mastering diagnostic techniques for each laboratory of DIC Subang.	8 weeks & annual review		xx			x				x				x				Mr. Sodirun	All related staffs of DIC Subang	Expert	CPs(All)	PC, Paper, Internet access
1-4	The staff of DIC Subang makes the list of trainer resources, for example, staffs of other DICs, IRCVS, NVDAL, Vet Faculty of university, foreign experts etc.	8 weeks		xx															Ms. Silvia	All related staffs of DIC Subang	Resource persons	CPs(All)	PC, Paper, Internet
1-5	The staff of DIC Subang learns the planned diagnostic techniques from the resources trainers through training in Indonesia, Japan or third country. .	2 years		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx								Ms.Rince	All labs	Resource persons	CPs(All)	Chemical, Reagent
1-6	The staff of DIC Subang receives the diagnostic capability evaluation (including the proficiency tests) and be evaluated by resource trainers about the transferred diagnostic tests.	24 weeks (annualy)			x				x				x				x						
Output 2	**The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staffs is strengthened.**																						
Activity 2-1	The staff of DIC Subang analyzes the current situation of sample flow and examinations at DIC Subang.	4weeks		x															Mr. Putut	Epidemiology staffs	Expert	CPs	PC, software, internet, GPS
2-2	The staff of DIC Subang analyzes the current situation of sample submission from the fields.	8weeks		x	x														Mr. Putut	Epidemiology staffs	Expert	CPs	PC, software, internet, GPS software
2-3	The staff of DIC Subang makes the plan of improved sample flow and examination system at DIC Subang. (Measures for the sample senders will be planed in Output 4)	8 weeks			xx														Mr.Sodik	Ms.Euis, Ms. Fitri	Expert	CPs	Official supplies
2-4	The staff of DIC Subang conducts the improved diagnostic services.	3years				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		Mr. Sodirun	Mr. Sunarno	Expert	CPs	Reagent, Chemical
2-5	The staff of DIC Subang monitors the improved diagnostic services (sample reception, diagnostic flow and customer's comment etc.) and conducts the feed-back to the system.	twice a year					x		x		x		x		x		x		Mr. Sodirun	Mr. Aji	Expert	CPs	Official supplies
Output 3	**The capacity to conduct the surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.**																						

Evaluation Grid ANNEX-3

1. Performance of the Project

Actual Inputs

1. Indonesian Side Inputs

(1) CPs Allocation

A total number of 52 counterparts has been allocated to the Project by the time of Mid-term Review.
Refer to ANNEX-6 Assignment of Counterpart.

(2) Local Resources Trainer

Trainers for Training and Workshop: A total of 13 trainers are dispatched by Indonesian side.

(3) Local Cost

A total amount of DIC Subang Budget of 2011 and 2012 are Rp. 23,485,548,000.

(Thousand Rp.)

2011	2012	Total
13,572,275	9,913,273	23,485,548

(Data Source: Project Report)

(4) Land, Building, Office and Facilities

Refer to ANNEX-10

2. Japan Side Inputs

(1) Long-term and Short-term Experts

(1) Long-term and short-term Experts (Annex-5 Dispatch of the Experts)
A total of 63MM Long-term Experts and 16.5 MM Short-term Experts were dispatched by March 2013.

1)	Chief Advisor / Animal Health Administration	21.0 MM
2)	Coordinator / Animal Health Information	21.0 MM
3)	Veterinary Diagnosis / Epidemiology	21.0 MM
4)	Pathological Diagnosis 1 (Dr. Shibahara)	4.0 MM
5)	Veterinary Epidemiology 1 (Dr. Kobayashi)	0.5 MM
6)	Diagnosis of Parasitic Disease 1 (Dr. Matsubayashi)	1.5 MM
7)	Pathological Diagnosis 2 (Dr. Mikami)	2.5 MM
8)	Veterinary Epidemiology 2 (Dr. Kobayashi)	2.0 MM
9)	Diagnosis of Parasitic Disease 2 (Dr. Fujisaki)	2.0 MM

10)	Pathological Diagnosis 3 (Dr. Shibahara)	2.0 MM
11)	Veterinary Public Health (Mr. Miyamoto)	2.0 MM
	Total months of Dispatched Japanese Experts from July 2011 ~ March 2013	79.5MM

(Data Source: Project Report)

(2) Local Cost Sharing

(2) Local Cost (ANNEX-9)
The total amount is from July2011 to March 2013.

2011	2012	Total
¥2,869156	¥11,209,443	¥14,078,599
Rp.336,124,209	Rp.1,307,681,171	Rp1,643,805,380

(Data Source: Project Report)

(3) Provision of Equipment

(3) Provision of Equipment
A total of Rp.1,627,265,755 (¥14,523,347) equipment provided by the Japan side. (ANNEX-8)

(4) CP Training in Japan

(4) A total number of 17 C/Ps had been trained in Japan by the time of Mid-term Review. Of them, three (3) C/Ps had moved to administrative section* in 2012/2013 and DGLAHS** in 2013.
Number of C/Ps trained in Japan by laboratory (Persons)

Laboratory	2009	2010	2011	2012	2013	Total	Moved
Serology				1	1	2	
Virology	1	(1)	(1)	1		2	
Bacteriology	(1)	(1)	1	(1)		1	-2*
Parasitology		1	1			1	-1**
Pathology		1	1			1	
Biotechnology	1		(1)			1	
Epidemiology	(1)		1			1	
Vet Public Health		1		1		2	
Vet Service, Vet Info.	1	1				2	
Administration	1			1		2	
Total	4	4	4	4	1	17	-3

(Data Source: Survey result 2010 and Project Report) ***(number) is position when dispatched.

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Achievement of the Outputs

Evaluation Items	Achievements
Output 1: The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases.	
Objectively Verifiable Indicator 1-1 The technical levels acquired on diagnostic tests in each laboratory (8 laboratories) of DIC Subang attain to the target levels set up in the "Project Technical Target Sheet" by June 2013.	Most C/Ps in DIC Subang have received almost all diagnosis techniques on the "Target sheet" in ANNEX-17 initially planned in each laboratory (7 laboratories*) based on the results of the baseline survey. The target levels set up in the "Target sheet" is likely to be attained. (Refer to ANNEX-4) Also, continuous experiences gain is still required in all laboratories. *Serology laboratory is included in the Virology laboratory's "Target sheet".
Progress of Activities for Output 1	Activity 1-1: The baseline survey was conducted for improvement of diagnostic capabilities on diagnosis techniques of each laboratory in DIC Subang. 1-2: Then, they set the necessary diagnostic techniques and its target levels in 2011. 1-3: The "Target sheet" has been developed and will be reviewed periodically. 1-4: The "List of Trainer Resources" lists have been prepared by C/Ps and experts. 1-5: The staffs are continuously transferring diagnostic techniques mainly by the Japanese experts and some seminars presented by the Indonesian resource persons. 1-6: Virology and Biotechnology laboratories received proficiency test by Australia Animal Health Laboratory (AAHL), the reference laboratory of World Organization for Animal Health (OIE).
Output 2: The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staffs is strengthened.	
Objectively Verifiable Indicator 2-1 8 veterinary staffs in DIC Subang are certified by The project that he/she is able to make a comprehensive diagnostic judgment based on the results of tests in each laboratory.	Regarding Objectively Verifiable indicator for Output 2, currently one veterinary staff is rotated monthly to make comments on the results sheet "Conclusion/Diagnosis" (Format 5) based on the test results of each laboratory, in which further recommendation is made by the technical manager.

Progress of Activities for Output 2	Activity 2-1, 2-2: The baseline survey was conducted to improve the current situation of the sample flow and analyzed them. 2-3, 2-5: A new flow has been developed and is still being revised continuously by the epidemiology laboratory and other related laboratories. 2-4: Recently, the required days for every inspection have been determined for providing the customer oriented diagnosis services.
Output 3: The capacity to conduct the surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.	
Objectively Verifiable Indicator 3-1 8 veterinary staffs out of 18 in DIC Subang reach to 75% comprehension level of conducting surveillance on animal health (Planning, Implementing, Monitoring and Feedback the results to next survey).	Comprehension level tests on each laboratory have not been done by the time of Mid-term Review. ・Disease Surveillance activities according to the new framework transferred by the Japanese expert has been conducted by the staff of DIC Subang in the selected pilot sites in three (3) provinces and will still be conducted in a future. ・The implementation plans based on the discussions with the three provincial DINASs and the baseline survey results to grasp stakeholders' situations were developed by the Epidemiology laboratory. ・Staff of DIC Subang also provide some technical training prior to the surveillance for laboratory officers and the field veterinarians in the pilot sites. ・The system that all veterinary staff and paramedic staff participate in disease surveillance was established.
Objectively Verifiable Indicator 3-2 8 veterinary staffs in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers.	Currently, one veterinary staff is rotated monthly to make comments on the results sheet "Conclusion/Diagnosis" (Form 5) based on the test results of each laboratory, in which further recommendations is made by the technical manager who is head of Vet Service section.
Progress of Activities for Output 3	Activity 3-1: The baseline survey was conducted to grasp stakeholders' situation and the result was reported to the 1st Joint Coordinating Committee (JCC) meeting on March 14, 2012. 3-2: The Pilot sites were set based on the results of the baseline survey such as priority diseases and brucellosis prevalence rates in West Java region. 3-3: Disease surveillances were planned based on the results of the baseline survey and discussions with DINASs in the 3 provinces and surveillance activities are implementing in pilot site according to the plan. In the Annual Regional Coordination Meeting organized in Nov.2012, Active Surveillances conducted by DIC Subang was discussed among all stakeholders as a main topic in the meeting. 3-4: Analysis on the survey results in the pilot sites of West Java province conducted in 2012 are still in the progress, although interim report had presented in the Regional Coordination Meeting in

	Nov. 2012. Progresses of disease surveillance of the pilot sites in each province are as follows; - **West Java province** Brucellosis surveillance on cattle has been conducted since April 2012. It was carried out in 11 districts which have livestock numbers 1000 or more animals in the province. Epidemiology and Bacteriology laboratories are continuously conducting the test and analysis at the time of Mid-term Review. The interim report was presented to Regional Annual Coordination Meeting on November 7-9, 2012 in Bandung. - **Banten province** Brucellosis surveillance on water buffalo has been conducted since January 2013 up to now. It is performing in eight districts which provincial and district DINAS and DIC Subang are taking charge of five districts and three districts respectively based on the discussion among stakeholders in Banten province. - **DKI Jakarta** Brucellosis surveillance in the dairy colonies and installation microchip to cattle for individual recognition has not started yet. A kick-off meeting was held in DKI Jakarta in April 2013 and the microchip installation activity was planned in May 2013.
Output 4: The DIC Subang staffs conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.	
Objectively Verifiable Indicator 4-1 DIC Subang (Vet. Information section) issues periodical Newsletter of animal health 2 times in a year for laboratory workers, field vets and farmers in the three provinces by June 2012.	Instead of the newsletter, web site of DIC Subang was developed to provide information on a regular basis.

Objectively Verifiable Indicator 4-2 8 veterinary staffs in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013.	The annual plan of technical support activities has not been prepared yet. It will be prepared by the staffs in DIC Subang with support of Japanese experts according to the needs of the regional stakeholders based on the results of the baseline survey conducted in 2011.
Objectively Verifiable Indicator 4-3 Achievement rate of annual activity plan (set in 4-2) becomes more than 90% in the pilot site.	The awareness and technical support activities at the pilot site will be fully in progress from 2013. However, some activities have been implemented by the moment of Mid-term Review; 1. Web site of DIC Subang instead of the newsletter to provide information on a regular basis. 2. Awareness brochures of livestock disease and it have distributed to provincial DINASs, district DINASs, B/C type laboratories and field veterinarians in 2012. The revised version was printed and distributed in Feb. 2013. 3. Laboratory workers in B/C type laboratories were invited to several seminars & trainings by short-term experts organized by the Project. 4. On-site-spots technical supports for laboratory workers, field vet and farmers during the active surveillances.
Progress of Activities for Output 4	Activity 4-1: Instead of the newsletter, web site of DIC Subang is developed to provide information on a regular basis. 4-2: was conducted to grasp needs of Trainings on animal health and the results were analyzed. Some technical meetings held at the pilot sites and DIC Subang for veterinary officers, laboratory workers, field vets and farmers. 4-3: The annual plan of awareness and technical supports has not been prepared by the time of Mid-term Review. 4-4: The implementation of sustainable activities on awareness and technical supports will be activated fully in 2013. 4-5: Monitoring will be conducted from 2013.

Prospect Achievement of Project Purpose

Project Purpose: The quality and quantity of animal disease diagnosis service at DIC Subang are improved.

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Objectively Verifiable Indicator 1 The number and the kind of animal disease diagnosis at DIC Subang becomes more than 35,000samples in a year and 16 kinds at the end of the Project.	The number and kind of animal disease diagnosis at DIC Subang had exceeded targeted numbers. The possible factors for this increase were increase of total number of active surveillance and AI incidence at the end of the year 2012. (Refer to ANNEX-20) Diagnosis conducted by DIC Subang

Year		2010.7~	2011	2012	2013	2014	2015
Number of Samples		14,875	32,016	47,466			
Receive	Passive	-	-	10,392			
Samples	Active	-	-	19,555			
Kinds of disease		15	23	23			

(Data Source: Project Report and provided data)

Objectively Verifiable Indicator 2 The feedbacks of diagnosis (Passive Surveillance) to the customers are returned promptly in prescribed days set by the Project.	Recently, the required days for every inspection have been determined for providing the customer oriented diagnosis services.
Objectively Verifiable Indicator 3 The DIC Subang staffs are ready to conduct Active Surveillance (Planning, Implementing, Monitoring and Feedback the results to next survey) on animal health considering with livestock / poultry industry promotion in the pilot sites more than 2 times / site in a year.	Disease Surveillance activities according to the new framework transferred by the Japanese expert has been conducted by the staffs of DIC Subang. The implementation plans based on the discussions with the three provincial DINASs and the baseline survey results to grasp stakeholders' situations were developed by the Epidemiology laboratory.
Objectively Verifiable Indicator 4 80% of inquired customers (stakeholders such as DINAS staffs, Field vets, and Farmers) recognizes improvement of DIC Subang by the end of the Project.	One provincial DINAS and two B-type laboratories in the pilot sites of DIC Subang are evaluated as gradually improving on the performances of diagnosis techniques, trainings and seminars. Moreover, "Disease Map" provided by DIC Subang annually are evaluated very useful. Since at the moment of Mid-term Review, it is too early to evaluate by this indicator.

Prospect Achievement of Overall Goal

Overall Goal: **Measures for animal disease control in West Java area (Jurisdictional area of DIC Subang) are strengthened.**	
Objectively Verifiable Indicator 1 Number of test samples for animal disease diagnosis at DIC Subang in West Java area increase 10% by the ear of 2018 in comparison with the number in 2015.	By the year 2012, the numbers are reached 47,466 samples and 23 diseases accordingly.
Objectively Verifiable Indicator 2 Number of district where the animal disease control is monitored by DIC Subang amounts to 39 of all 39 districts in West Java area by the year of 2018.	DIC Subang monitors 37 districts out of 41 in 2012.
Objectively Verifiable Indicator 3 Number of awareness and technical support activity concerning animal health conducted by DIC Subang in West Java area goes up 20% by the year of 2018 in comparison with number in 2015.	The activities related to awareness and technical support had just started in early year of 2013, it is too early to see the impacts of those activities implemented by DIC Subang in West Java region.

2. Implementation Process

Evaluation Items	Results
1. Recognition of C/P and implementing agency about the Project	(1) Transfer of trained C/Ps personnel ・In order to make use of their acquired techniques in Japan, DIC Subang assigned one trained personnel to Pathology laboratories and the other one to the Parasitology laboratories in 2012 after they returned from 7 months training in Japan. This has motivated them and they have been actively utilizing their knowledge and skills learned in Japan. ・On the other hand, one who was chief of Bacteriology laboratories and dispatched for 3 months training in Japan in 2009 was transferred to the position of administration head in 2012. One who was dispatched for 7 months training in Japan in 2012 was assigned concurrently with the Bacteriology laboratory and administration work in January 2013 after return from Japan, is seems difficult for her to focus on the laboratory work. ・One chief of Parasitology laboratory who was dispatched for 2 months training in 2010 was transferred to DGLAHS in March 2013.
	(2) Dedicating staffing for "cell culture" improvement Cultivation of cell culture including primary cells and established cell lines is difficult to be carried on without personnel being intensively engaged in the work. If test with cell culture is necessary over the future in DIC Subang, at least one laboratory staff should be assigned to cell preparation who is able to work intensively and exclusively for cultivation of cell culture. Since the Project initiation, Japanese long-term expert has been engaged in the work mainly but not trained C/Ps. At the moment of Mid-term Review One veterinary staff in Serology lab was assigned to cultivation of cell culture lab, although he is still responsible another important affaires in BSL.
	(3) C/Ps common understanding of the Project According to the C/Ps answers for Questionnaire of Mid-term Review, the degree of C/Ps common understanding of Project Purpose, approaches and Overall Goal of the Project is very high.

2. Others	(1) Facility development There is a facility inventory management system named BMN (System Aplikasi Manajemen Akutans Keuangan Barang Milik Negara, and DIC Subang registers all facility and equipment into the system and report to Ministry of Finance (MoF) every year. According to this registration, the budget for maintenance and repair is allocated by MoF. It is concern that the facilities provided in 2009 by Japanese Grant aid cannot be registered in this system without detailed equipment list. The project has been discussing the countermeasure for this issue with JICA Indonesia office.
	(2) Dispatch of short-term experts Eight Japanese short-term experts were dispatched, in which seven of them were dispatched from NIAH of Japan. Out of the eight Japanese short-term experts, four were dispatched repeatedly. In addition, NIAH conducted the training for the Indonesia C/Ps. These factors contribute to the efficiency of the Project implementation.

3. Evaluation by Five Evaluation Criteria

Evaluation Items	Results of Evaluation
1. Relevance	
1.1. Relevance of Overall Goal and Project Purpose	(1) Consistency with the needs of Target Group of the Project and needs of the pilot sites ・Staff of DIC Subang (Target Group of the Project) is still relevant with the Purposes of the Project according to the results of questionnaire survey on them. ・Laboratory workers and Field vets and farmers in the pilot sites in West Java province, DKI Jakarta and Banten province are the ultimate beneficiaries of the Project. According to the results of questionnaire to DINASs and interview to B-type laboratories, their needs are also still relevant with the purposes of the Project.
	(2) Consistency with the National Policy ・Project Purpose of the Project "The quality and quantity of animal disease diagnosis service at DIC Subang are improved." and Overall Goal "Measures for animal disease control in West Java area (Jurisdictional area of DIC Subang) are strengthened." are still consistent with the Indonesian National Policy and Strategic Plan Design, Ministry of Agriculture 2010 -2014. ・The "Livestock industry development mid-term plan 2010-2014" used as the pillar of Livestock industry development was announced by DGLAHS in 2009. Also in the Livestock industry development which aims at the productivity drive of Livestock industry, animal health is playing the important role not to mention the safety and livestock manufactured goods of the humans about zoonosis. ・"Law of Livestock Industry and Animal Health" were newly recognized and proclaimed in May, 2009 in Parliament. As the revision points of the new law enforced in 2009, (1) Notification duty of animal infectious disease specified and establishment of penal regulations and (2) Compensation for the livestock screened for prevention of infectious animal disease are raised. Therefore DIC Subang will contribute to these laws by obtaining rapid and accuracy diagnosis techniques by the Project.
	(3) Consistency with the Japan's Assistant Policy to Indonesia. ・At the time of ex-Ante Evaluation, the Project was considered relevant to Japan's ODA policies to Indonesia as being under one of the priority areas of the policy: "Support for democracy and equitable

	stable society", since agricultural and rural development was an important factor to attain "Poverty Reduction" as a pillar within the priority area. ・At the time of the Mid-term Review, priority area of Japan's ODA policies to Indonesia have changed as follows: Support for further economic growth, Support for reducing disparities and building of a safe and secure society, and, Support for improvement of the capacity to respond to challenges in the Asian region and the international community. Therefore, the Project is still relevant with above new policies, since it aims at introducing animal disease diagnosis techniques to the DIC Subang, thereby strengthened measures for animal health control in West Java region (Jurisdictional area of DIC Subang).
1.2 Appropriateness of the project design	(1) Appropriateness of Planning Process PDM Version 0 (October 28, 2010) and PO was planned by PCM workshops with participation of all DIC staffs based on research to other two DICs.
	(2) Appropriateness of revision of PDM PDM version 0 was revised on March 14, 2012 at the 1st JCC Meeting. Revised content is mainly set numerical targets for Objectively Verifiable Indicators on PDM and the revision was approved by JCC.
2. Effectiveness	
2.1. Achievement level of the Outputs	The contributions of four Outputs for the achievement of Project Purpose are mostly by Output 1 and also contributed partly by Output 2, Output 3 and Output 4, although activities are still remaining.
2.2 Achievement level of the Project Purpose	The number and kind of animal disease diagnosis at DIC Subang had exceeded targeted numbers of 35,000 samples and 16 diseases and reached 47,466 samples and 23 diseases by the end of the year 2012. The possible factors for this increase were the increase of total number of active surveillance and AI incidences at the end of the year 2012. Regarding indicator 2, recently the required days for every inspection have been determined for providing the customer oriented diagnosis services. Regarding indicator 3, the staffs of DIC Subang have already conducted comprehensive Active Surveillance processes by the new framework in three provinces.
2.4 Important Assumption necessary to achieve from Output level to Project Purpose	According to the Implementation Process, The Important Assumption The staffs of DIC Subang who have been transferred techniques by the Project are not transferred to other office during the Project period, has not been entirely fulfilled due to several transfer occurred in 2012 and 2013.
3. Efficiency	

3.1 Appropriateness of quality, quantity and timing of Inputs to produce planned Outputs	(1) Dispatch of the Japanese Experts Eight Japanese short-term experts were dispatched, in which seven of them were dispatched from a same organization. Out of the eight Japanese short-term experts, four were dispatched repeatedly. In addition, the same organization conducted the training for the Indonesia C/Ps. These factors contribute to the efficiency of the Project implementation.
	(3) Allocation of Counterparts ・Three C/Ps out of seventeen C/Ps trained in Japan since 2009, were transferred from technical laboratories to administrative section in DIC Subang and DGLAHS after returned from the training.
	(3) Counterpart Training in Japan Dispatched C/Ps to the Training in Japan are mostly appropriate, however the positioning after returned were inconsistent.
	(4) Provision of Equipment Provision equipment are appropriate. It is confirmed that all of the equipment are registered and maintained regularly by the laboratory staffs and the Maintenance staffs in DIC Subang.
	(5) Allocation of the budget for the Project by Indonesian side The budget allocated to DIC Subang has been stable and sufficient during the Project implementation. Most of the expenses for the activities of the Project provided by the both sides. (Rp. 9,913,273,000 in 2012)
	(6) Local cost supported by Japanese side The local cost support budget of Japanese side has not been increased due to stable and sufficient budget for the Project activities by Indonesian side during the Project implementation. (Rp. 1,307,681,171 in 2012)
	(7) Building & facilities Facilities were provided by Indonesian side.
3.2 Supporting System for the Project	(1) By implementing organization Japan side Technical Supporting Committee in Japan is functioning during the Project implementation. (2) By implementing organization Indonesia side Joint Coordination Committee meeting was organized annually, and Project Management Unit for the Project was set in DGLAHS.
3.3. Important Assumption from the Activity level to the Output level	Important Assumption Sufficient budget to conduct the necessary diagnosis is secured by Indonesian side has been fulfilled during the Project implementation by the time of Mid-term Review.

3.4 Other issues effect to efficiency	Regarding some issues occurred during the Project implementation, supply of Chicken Embryonated(CE) Eggs, and supply water for DIC Subang have been slow to take actions that might effected efficiency. More dialogues are required between Japanese technical long-term experts and management of DIC Subang.
4. Impact	
4.1 Prospect achievement of the Overall Goal	(1) Prospect from actual achievement of the indicators on PDM However it is still too early to prospect achievement of the Overall Goal, the numbers on the Indicators show likely to be achieved by 2018. On the other hand, therefore, one or two customers still have skeptical look on improvement of DIC Subang services (according to the result of interview to customers). Therefore, if DIC Subang change the customers' perception by their improved services at the end of the Project, customers skeptical look might be omitted from the inhibiting factors in order to achieve Overall Goal.
	(2) Contribution from the Project to the Overall Goal If the Project purpose achieved fully by the end of the Project and Important Assumptions in the Project Purpose level, then the Overall Goal seems to be achieved. During the Project implementation, it is necessary to put more considerations on the inhibiting factor mentioned in 4-1.(1) and Important Assumptions.
	(3) Contribution from the others In order to achieve Overall goal by sustaining the result of the Project, strategic and positive influence of Indonesian side by chief adviser is indispensable, but it cannot be said that it is enough under the present circumstances.
4.2 Unintended Positive Impacts by the project implementation	(1)After implementing active surveillances in the three provinces, there are several positive Impacts reported. In Banten province, provincial DINAS reports that during the implementation of the Brucellosis surveillance in 2013, commitments, coordination and communications of relevant governments (provincial, central division and district/city) are increased. (2)Bio Safety Maintenance Seminar held at DIC Subang organized by DG with the collaboration of FAO and WHO on March 6, 2013. It is because of the facilities provided by Japanese Grant aid and the Project implemented in DIC Subang promote other donors' interest. (3)DIC Subang services for the provinces of West Java, DKI Jakarta and Banten, if compared when these three provinces were under DIC Wates, has increased because the coverage area become more accessible

	therefore the frequency of services increased as well.
4.3 Unintended Negative Impacts by the project implementation	during the Project implementation no negative impacts are observed.
5. Sustainability	
5.1 Policy and Institutional Sustainability	(1) Policies Indonesian side policies for the Animal Health mentioned in relevance, it is likely to continue to 2014.
	(2) DIC Subang (Roles and operational system of C/P agency) DIC Subang has duty to implement investigation, and assessment of animal disease, and hold for the function of a. Animal disease diagnosis, b. Animal disease epidemiological surveillance, c. Observation and evaluation of post vaccination, d. Making disease regional map and e. Documentation and dissemination of information of animal health. (Refer to the Decree of MoA No.34/Kpts/PD.620/1/2009)
	(3) Provincial DINASs, District DINASs and B/C type laboratories) in the West Java region have a roles to Control animal diseases in the area and they have responsibility to train farmers as well.
5.2 Technical Sustainability	(1) Technical aspects on Diagnosis techniques of DIC Subang If C/Ps will acquire more experiences of diagnostic techniques during the Project implementation, technical aspect is likely to be sustained. Moreover, some section heads of DIC Subang answered that have plan to maintain staff's obtained knowledge and skills in the questionnaire.
	(2)Technical aspect of Maintenance staff of DIC Subang Provision equipment are maintaining regularly and all of them are utilized as the purposes with in good condition according to the observation survey at the time of Mid-term Review. In addition to that, DIC Subang has a plan to provide technical training to the Maintenance staff on these equipment provided by Japanese Grant Aid in 2009.
	(3)Technical aspect of trained B/C type lab workers, veterinarian and field vet If DIC Subang continued to provide technical trainings at DIC Subang and technical supports to them prior to implement Active Surveillance in the pilot sites within the new framework, then those trained personnel would contribute to their animal disease control.
5.3 Financial Sustainability	(1) Budget status of DIC Subang during the Project implementation The budget status has been stable and sufficient for the Project activities during the Project implementation.
	(2) Prospect of budget for DIC Subang (including equipment maintenance)

	DGLAHS has shown the commitment to secure the budget of providing animal diagnosis services of DIC Subang to be fully improved for West Java region.
	(3)Facility development There is a facility inventory management system named BMN (System Aplikasi Manajemen Akutans Keuangan Barang Milik Negara, and DIC Subang registers all facility and equipment into the system and report to Ministry of Finance (MoF) every year. According to this registration, the budget for maintenance and repair is allocated by MoF. It is concerned that the facilities provided in 2009 by Japanese Grant aid cannot be registered in this system without detailed equipment list. The project has been discussing the countermeasure for this issue with JICA Indonesia office.
	(4)Budget for Active Surveillances in collaboration with DINASs and other organizations Active surveillance in Banten province, the expenses are divided by DINAS and DIC Subang, in addition to this, necessary test reagents are covered by Banten province.

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Achievement of Output 1 by each laboratory (Accomplishment of "Target sheet") **ANNEX-4**

Laboratory	Actual Inputs (C/Ps and Experts)		Achievement by the time of Mid-term Review (May 2013)
	C/Ps (Trainings)	Experts	
Serology lab	・Suryo P.(Malaysia、3weeks), (2013.3~ Japan, 7 months) ・Afif I. (Japan, 1 month)	Ikuo KOIKE (21MM)	・"Target Goal in Virology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1, 2, 3, 4, 5, 7, 8, 10, 11 as planned. One staff has not completed number 7 and 11 because of time limitation. (The one newly joint Virology lab in 2012) ・"Proficiency Test" 1. OIE reference laboratory, Australia Animal Health Laborator (Geelong, Australia): Passed in August 2012 and December 2012 2. Other DICs DIC Lampung: Passed in October 2011, DIC Bukitinggi: Antibody level test results were inaccurate due to using domestic ELISA kit. Lab using the BioRad kit passed al, DIC Wates: Passed in January 2013, DIC Denpasar: under exam
Virology lab	・Trian M. (Japan, 1 month) ・Yulianti ・Ipat H. ・Fitri D.	Ikuo KOIKE (21MM)	
Bacteriology lab	・Ali. R. (Japan, 1 month) (Thai, 1week) ・Tyas A. (Japan, 7 months) →additional post Adm. ・Euis S.M. (・Rince⇒Transferred to Adm.)	Masato KISHIMA (21MM)	・"Target Goal in Bacteriology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1 (daily), 2 (daily), 3 (2-3times/year), 4(no sample), 5(daily), 7, 8, 9 (1time /year), 10, 11, 12 as planned.
Parasitology lab	・Isrok M. (Japan 7 months) ・Suharno	Makoto MATSUBAYASHI	・"Target Goal in Parasitology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

	・Dudi W.A. ・Adi H. ・(Silvia M.A⇒Transferred)	(1.25MM) Kozo FUJISAKI (2.0MM)	14 as planned. ・Problem about problematic method on the manual C/Ps idea has not been changed. Their opinion is the method (problematic) should be followed because it is standard of Indonesia and the method by new equipment brings same results but only faster. ・Dr. Fujisaki's Report All procedures of blood smear preparation, fixation by methanol, Giemsa staining, and microscopical obserbvation were assessed , and several number of technical issues were discovered by Dr. Matsubayashi in 2011 and conducted the necessary technical transfer for the improvements. However, the problematic method before his resolution was preferred and now used routinely at the lab in 2012.→Manual Standar Methoda Diagnosa, Laboratorium Kesehatan Hewan (1999) has been regarded as the standard protocol to be followed by all DICs in Indonesia.
Pathology lab	Tri J. (Japan, 7 months) Rinto S. (Japan, 7 months) Eka M	Tomoyuki SHIBAHARA (4.0MM) Osamu MIKAMI (2.5MM) Tomoyuki SHIBAHARA (2.0MM)	・"Target Goal in Pathology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, as planned. One staff has not completed number 6 item and number 7 item is learnt by only one staff. ・Current issue of Pathology lab There are very rare chances to receive samples for Pathology lab.

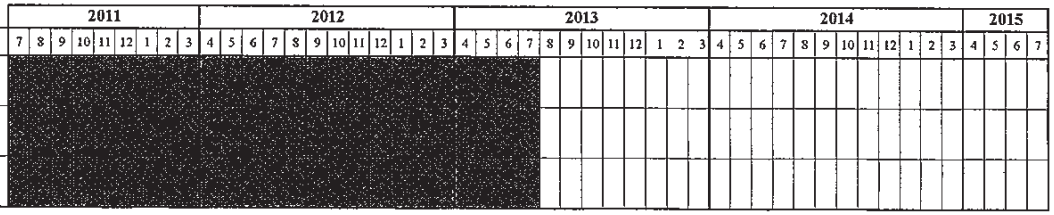
Biotechnology lab	・Sunarno (Japan,10 months) ・Lukman (Titin H.M.s⇒Transferred)	Ikuo KOIKE (21MM)	・"Target Goal in Biotechnology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1, 2, 3, 4 (PCR has not completed) as planned. ・"Proficiency Test" Passed in December 2012 and February 2013. OIE reference laboratory, Australia Animal Health Laborator (Geelong, Australia)
Epidemiology lab	・Putut E.W.(Japan, 4months)⇒ Vet Info Section manager SatriyoS.U. (Japan, 2months) (Subang, 10days) ・W. Sodik (Thai, 1week), (Subang, 10days) ・Firman D.K.	Souta KOBAYASHI (0.5MM) Souta KOBAYASHI (2.0MM)	・"Target Goal in Epidemiology Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1, 3, 4, 5, 6, 7 as planned.
Vet Public Health lab	・Aji B. (Japan, 7 months) ・Puttik A. Guswnato S. (Japan, 10 months) ・Dudi I. ・Fenti W.	Toru MIYAMOTO (2.0MM)	・"Target Goal in Vet Pub Health Laboratory" (Refer to ANNEX-17) Completed numbers of techniques/services are 1 (4/5), 2 (2/5), 3 (1/5), 4 (3/5), 5 (3/3), 6 (2/2) as planned.

1. Dispatch of Experts

ANNEX-5

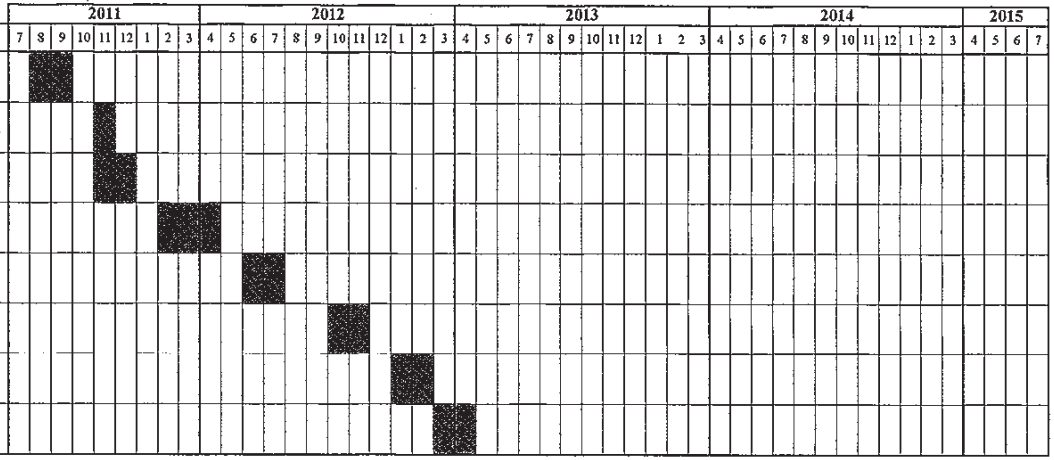
(long-term)

No	Names	Field	Term of assignment
1	Dr. KISHIMA Masato	Chief Advisor / Animal Health Administration	2011.7.17 - 2013.7.16
2	Dr. KOIKE Ikuo	Veterinary Diagnosis / Epidemiology	2011.7.17 - 2013.7.16
3	Mr. MAEDA Yasuyuki	Coordinator / Animal Health Information	2011.7.17 - 2013.7.16



(short-term)

No	Names	Field	Term of assignment
1	Dr. SHIBAHARA Tomoyuki	Pathological Diagnosis	2011.7.24 - 2011.9.16
2	Dr. KOBAYASHI Sota	Veterinary Epidemiology	2011.10.31 - 2011.11.12
3	Dr. MATSUBAYASHI Makoto	Diagnosis of Parasitic Disease	2011.11.7 - 2011.12.17
4	Dr. MIKAMI Osamu	Pathological Diagnosis	2012.2.8 - 2012.4.26
5	Dr. KOBAYASHI Sota	Veterinary Epidemiology	2012.5.27 - 2012.7.21
6	Dr. FUJISAKI Kozo	Diagnosis of Parasitic Disease	2012.10.7 - 2012.12.1
7	Dr. SHIBAHARA Tomoyuki	Pathological Diagnosis	2013.1.20 - 2013.3.16
8	Mr. MIYAMOTO Toru	Veterinary Public Health	2013.2.24 - 2013.4.20



Assignment of Counterpart

ANNEX-6

No	Name of Counterpart	Position / Organization	Field in charge	Term of Assignment		Remark
				From	To	
1	Dr. Tjeppy D. Soedjana, PhD	Director General/ Directorate General of Livestock and Animal Health Services (DGLAHS), Ministry of Agriculture	Project Director	2011.7.17	2011.12.31	Moved to other section
2	Dr. Ir.Syukur Iwantoro, MS, MBA	Director General/ Directorate General of Livestock and Animal Health Services (DGLAHS), Ministry of Agriculture	Project Director	2012.1.1	"	
3	Dr. Pudjiatmoko, Ph.D	Director/ Directorate of Animal Health (DAH), DGLAHS	Project Manager	2011.7.17	"	
4	Dr. Budiantono, DVM, M.Sc	Head/ Disease Surveillance Sub-Directorate, DAH	Deputy Project Manager	2011.7.17	2012.1.31	Moved to other section
5	Dr. Widjajanti, DVM	Head/ Disease Surveillance Sub-Directorate, DAH	Deputy Project Manager	2012.2.1	"	Moved to other section
6	Dr. Muhammad Syibli, DVM	Head/ Disease Surveillance Sub-Directorate, DAH	Deputy Project Manager	2012.8.24	"	
7	Dr. Muhammad Syibli, DVM	Director/ DIC Subang	Deputy Project Manager	2011.7.17	2012.8.23	
8	Dr. Lilek Indrayani, DVM	Director/ DIC Subang	Deputy Project Manager	2012.8.24	"	
9	Dr. Sodirun, DVM., MV.Sc	Coordinator of Virology Laboratory, Head Section of Veterinary Services	Virologist	2011.7.17	"	
10	Dr. Yuliyanti	Staff of Virology Laboratory	Virologist	2011.7.17	"	
11	Dr. Suryo Purnomo Edi	Staff of Virology Laboratory	Virologist	2011.7.17	"	
12	Dr. Rinto Sukoco	Staff of Pathology Laboratory	Virologist	2011.7.17	"	
13	Dr. Aprizal Pamu	Staff of Virology Laboratory	Virologist	2011.7.17	"	Graduate school
14	Mr. Ipat Hikmatul Isro	Staff of Virology Laboratory	Paramedic Veteriner	2011.7.17	"	
15	Ms. Fitri Diah Anggreini	Staff of Virology Laboratory	Paramedic Veteriner	2011.7.17	"	
16	Mr. Afif Ibrahim	Staff of Virology Laboratory	Paramedic Veteriner	2011.7.17	"	
17	Dr. Puhut Eko Wibowo	Coordinator of Epidemiology Laboratory, Head Section of Veterinary Information	Epidemiologist	2011.7.17	"	
18	Dr. Satriyo Setyo Utomo	Staff of Epidemiology Laboratory	Epidemiologist	2011.7.17	"	
19	Dr. Wimaham Sodik	Staff of Epidemiology Laboratory	Epidemiologist	2011.7.17	"	
20	Mr. Firman Duk K.	Staff of Epidemiology Laboratory	Paramedic Veteriner	2011.9.1	"	
21	Ms. Dewi Pramesti	Staff of Finance Division	Paramedic Veteriner	2011.7.17	"	
22	Dr. Sylvia Maharani Ananta, M.Sc	Coordinator of Parasitology Laboratory	Parasitologist	2011.7.17	"	
23	Dr. Suharno	Staff of Parasitology Laboratory	Parasitologist	2011.7.17	"	
24	Mr. Adi Hidayat	Staff of Parasitology Laboratory	Paramedic Veteriner	2011.9.1	"	
25	Dr. Rince Morita Butar Butar	Head of Administration	Bacteriologist	2011.7.17	"	
26	Dr. Bagyaningtyas A.	Coordinator of Bacteriology Laboratory	Bacteriologist	2011.9.1	"	
27	Dr. Ali Ruhnawan	Staff of Bacteriology Laboratory	Bacteriologist	2011.7.17	"	
28	Ms. Enis Siti Maimunah	Staff of Bacteriology Laboratory	Paramedic Veteriner	2011.7.17	"	
29	Dr. Tri Juwiarto	Coordinator of Pathology Laboratory	Pathologist	2011.7.17	"	
30	Dr. Trian Mahawan	Staff of Virology Laboratory	Pathologist	2011.7.17	"	
31	Mr. Eka Mahpudin	Staff of Pathology Laboratory	Paramedic Veteriner	2011.7.17	"	
32	Ms. Selviyanti Nurustia	Staff of Finance Division	Paramedic Veteriner	2011.7.17	"	
33	Dr. Aji Barbora Nissono	Coordinator of Public Health Laboratory	Veterinary Public Health	2011.7.17	"	
34	Dr. Putik Allamanda	Staff of Public Health Laboratory	Veterinary Public Health	2011.7.17	"	
35	Mr. Dudi Iskandar	Staff of Public Health Laboratory	Paramedic Veteriner	2011.7.17	"	
36	Mr. Guswanto	Staff of Public Health Laboratory	Paramedic Veteriner	2011.7.17	"	
37	Ms. Fenti Widiastuti	Staff of Public Health Laboratory	Paramedic Veteriner	2011.9.1	"	
38	Dr. Sunarno	Coordinator of Biotechnology Laboratory	Molecular Biologist	2011.7.17	"	
39	Dr. Isrok Malikus Sufi	Staff of Parasitology Laboratory	Molecular Biologist	2011.7.17	"	
40	Ms. Titin Haryuti, M.Bit	Staff of Biotechnology Laboratory	Paramedic Veteriner	2011.7.17	"	
41	Mr. Lukman	Staff of Maintenance Division	Paramedic Veteriner	2011.7.17	"	
42	Dr. Agus Hartadi	Staff of Administration	Administration	2011.7.17	"	
43	Ms. Eri Trimurningsih	Staff of Finance Division	Administration	2011.7.17	"	
44	Mr. Komar	Staff of Administration	Administration	2011.7.17	"	
45	Mr. Hartono	Staff of Administration	Administration	2011.7.17	"	
46	Mr. Yeya Suwiyi	Staff of Administration	Administration	2011.7.17	"	
47	Ms. Nimung Nurhasana, SE	Staff of Administration	Administration	2011.7.17	"	
48	Ms. Kartika, SE	Staff of Finance Division	Administration	2011.7.17	"	
49	Ms. Elly Kusumawati, Amd.	Staff of Maintenance Division	Maintenance	2011.7.17	"	
50	Mr. Sarwadi, Amd	Staff of Maintenance Division	Maintenance	2011.7.17	"	
51	Mr. Ludi, Amd.	Chief of maintenance Division	Maintenance	2011.7.17	"	
52	Mr. Lukman Hakim	Staff of Maintenance Division	Maintenance	2011.7.17	"	

Training

ANNEX-7

(1) Counterpart Training in Japan

No	Name of Counterpart	Field in charge	Name of training Course	Term of Training From	Term of Training To	Supporting Organization
1	Dr. Satriyo Setyo Utomo	Staff of Epidemiology Laboratory, DIC Subang	Zoonosis Control in Japan	2011.8.15	2011.9.15	JICA
2	Dr. Ali Rahmawan	Staff of Bacteriology Laboratory, DIC Subang	Zoonosis Control in Japan	2011.8.15	2011.9.15	JICA
3	Dr. Rinto Sukoco	Staff of Pathology Laboratory, DIC Subang	Research on Veterinary Technology in Japan	2010.3.16	2011.10.15	JICA
4	Dr. Isrok Malikus Sufi	Staff of Biotechnology Laboratory, DIC Subang	Research on Veterinary Technology in Japan	2010.3.16	2011.10.15	JICA
5	Dr. Bagyaningtyas Anggoro	Head of Bacteriology Laboratory, DIC Subang	Research on Veterinary Technology in Japan	2012.3.27	2012.10.27	JICA
6	Dr. Trian Mahawan	Staff of Virology Laboratory, DIC Subang	Zoonosis Control in Japan	2012.8.12	2012.9.13	JICA
7	Mr. Afif Ibrahim	Staff of Virology Laboratory, DIC Subang	Zoonosis Control in Japan	2012.8.12	2012.9.13	JICA
8	Mr. Guswanto	Staff of Public Health Laboratory, DIC Subang	Advanced Research Course on International Animal Health	2012.10.22	2013.8.24	JICA
9	Dr. Suryo Purnomo Edi	Staff of Serology Laboratory, DIC Subang	Research on Veterinary Technology in Japan	2013.3.27	2013.10.30	JICA

(2) Counterpart Training in Indonesia and Third country

No	Name of Counterpart	Field in charge	Name of training Course	Term of Training From	Term of Training To	Supporting Organization
1	Dr. Suryo Purnomo Edi	Staff of Serology Laboratory, DIC Subang	Diagnosis of Avian Influenza at Source in Southeast Asia Region in Malaysia	2011.10.7	2011.10.31	Third Country Training Programme (TCTP)
2	Dr. Ali Rahmawan	Staff of Bacteriology Laboratory, DIC Subang	Training on diagnosis & surveillance of Brucellosis in Thailand	2012.5.29	2012.6.7	JICA
3	Dr. Witnalum Sodik	Staff of Epidemioogy Laboratory, DIC Subang	Training on diagnosis & surveillance of Brucellosis in Thailand	2012.5.29	2012.6.7	JICA

(3) Seminars, Workshops or Trainings conducted in Indonesia

No	Name of Trainee	Venue	Name of training Course	Term of Training From	Term of Training To	Supporting Organization
1	all DICs in Indonesia, NVDAL, RIVS, CVBB	DIC Subang	Annual Meeting of Parasitology Laboratory in Subang	2011.9.1	2011.9.4	Indonesian Government
2	Dr.Putut, Dr.Aji	Head Section of Veterinary Information, DIC Subang	Training on Zoonosis Disease and Bio-safety (Jakarta)	2011.9.8	2011.9.9	Indonesian Government
3	all staff in DIC Subang and participant in DIC coverage	DIC Subang	Annual meeting of Subang DIC and Stakeholder in DIC coverage area	2011.12.19	2011.12.21	Indonesian Government, JICA
4	all staff in DIC Subang	DIC Subang	Biosafety Training in DIC Subang	2011.12.26	2011.12.28	Indonesian Government
5	all staff in DIC Subang	DIC Subang	In-house Training Workshop on principles & Practices Biosafety	2012.1.9	2012.1.10	Indonesian Government
6	staff of Pathology lab in all DICs	DIC Subang	Veterinary Pathology Workshop and National Scientific Meeting	2012.3.26	2012.3.30	Indonesian Government
7	Dr. Isrok and Dr.Aji	Bali	Asia Pacific Biosafety Confference & Workshop	2012.4.24	2012.4.27	Indonesian Government, JICA
8	Dr. Sodirun and 40 Participant from Animal Health Centers (Puskeswan)	Ciater	Coordination Meeting with field staff in DIC Coverage	2012.5.14	2012.5.15	Indonesian Government, JICA
9	all DICs in Indonesia and DINAS Animal Health Services	DIC Subang	Laboratory Competency Improvement (Biotechnology)	2012.5.29	2012.5.31	Indonesian Government
10	Dr. Satriyo, Dr. Sodik and 20 participants from other DICs & B/C types labs	DIC Subang	Training Course on Veterinary Epidemiology and Data Analysis in DIC Subang (Dr.Kobayashi)	2012.6.18	2012.6.29	JICA
11	Dr.Sodirun, Dr.Rinto, Dr.Suryo, Dr. Sunarno, Dr.Isrok, Dr.Koike	Yogyakarta	Rapat Teknis dan Pertemuan Ilmiah Kesehatan Hewan	2012.6.20	2012.6.22	DGLAHS
12	all staff in DIC Subang	DIC Subang	In-house Training Identification and Deepening of SNI/IEC 17025:2008	2012.9.17	2012.9.19	Indonesian Government, JICA
13	staff from DIC Subang, BIB Lembang, BBT Cipelang and BP2HK Cikole	DIC Subang	Parasitology seminar lectured by Dr.Fujisaki	2012.10.12	2012.10.12	JICA
14	all staff in DIC Subang	DIC Subang	In-house Training SNI I ISO 9001:2008	2012.10.29	2012.11.1	Indonesian Government, JICA
15	all staff in DIC Subang and participants in DIC coverage area	Bandung	Annual Coordination Meeting of Animal Health and Veteriner Public Health	2012.11.7	2012.11.9	Indonesian Government, JICA
16	all DICs in Indonesia and DINAS Animal Health Services	DIC Subang	In-house Training Control and Prevention of BSE and FMD in Indonesia	2013.2.19	2013.2.20	Indonesian Government, JICA
17	Animal Health Services of Banten Province and Districts, B type lab, Dr.Putut, Dr. Ali, Dr.Satriyo	Serang	Workshop for Brucellosis surveillance in Banten province	2013.4.1	2013.4.2	Provincial Government, Indonesian Government, JICA

Provision Equipment by the Japan Side

ANNEX-8

(1) Major Equipment Provided by JICA (based on the A4 form or more than 5 million rupiah)

Ref. No.	Items, Model, Specifications		QTY	Unit Price (Rp, S)	Amount (Rp, S)	Amount (¥)	Place	Operation	Maintenance	Delivery	Remarks
F.Y. 2011											
P1109281	Copy machine	SHARP MX-2301N	1	44,750,000	44,750,000	386,282	DIC Subang	A	A	28/09/2011	Project Office
P11112401	Desktop PC	HP Pro 3300	4	$965	$3,860	304,274	DIC Subang	A	A	24/11/2011	Project Office, Parasitology, Bacteriology, Pathology
P11112402	Notebook PC	Lenovo Thinkpad L420	2	$930	$1,860	146,619	DIC Subang	A	A	24/11/2011	Project Office, Epidemiology
P11112403	Color Printer	Canon Pixma MX886	4	$350	$1,400	110,358	DIC Subang	A	A	24/11/2011	Bacteriology, Epidemiology, Administration, Pathology
P11112404	UPS	Ica CKE1200	4	$87	$348	27,432	DIC Subang	A	A	24/11/2011	Project Office, Parasitology, Bacteriology, Pathology
P11112405	Server	Hp Compaq Proliant ML350	1	$3,150	$3,150	248,306	DIC Subang	A	A	24/11/2011	Maintenance
P11112406	CCTV	Sony SSC-N20	8	$165	$1,320	247,124	DIC Subang	A	A	24/11/2011	Maintenance
P11122801	Digital Video Recorder and Monitor for CCTV	GANZ DR8H-DVD	1	$1,815	$1,815	247,124	DIC Subang	A	A	28/12/2011	Maintenance
P11120701	Vehicle	DAIHATSU Terios TX-MT-MC	1	188,100,500	188,100,500	1,623,684	DIC Subang	A	A	07/12/2011	Project Office
P11120702	Digital Camera	Panasonic Digital Camera LUMIX DMC-FP1	4	1,391,000	5,564,000	48,028	DIC Subang	B	B	07/12/2011	Project Office
P11120703	Digital Video Camera	Sony Handycam Camcoder HDR CX130	1	5,457,000	5,457,000	47,105	DIC Subang	B	B	07/12/2011	Project Office
P11121901	ELISA Reader	THERMO Multiskan EX Elisa System Work Station	1	104,592,500	104,592,500	902,842	DIC Subang	B	B	19/12/2011	Bacteriology
P11121902	GPS Terminal	GARMIN GPSMAP 62s	4	4,173,000	16,692,000	144,085	DIC Subang	B	B	19/12/2011	Project Office, Epidemiology
P12032901	Microscope CCD camera and	Nikon NI-U, DS-Fi2-U3	1	228,400,000	228,400,000	2,038,470	DIC Subang	A	A	29/03/2012	Pathology Lab
P12022301	8 channel Pippetor 20-200ul	CMSI, C200 - 8A-SL	3	6,412,400	19,237,200	171,692	DIC Subang	A	A	23/02/2012	Virology Lab
P12031901	Vacuum pump	Membrane solution: VPI0332	1	9,625,000	9,625,000	85,903	DIC Subang	B	B	19/03/2012	Virology Lab
P12032701	Slide Staining Set	Finetek 4451	1	8,325,000	8,325,000	74,301	DIC Subang	B	B	27/03/2012	Pathology Lab
F.Y. 2012											
P12050401	SPSS	IBM SPSS Statistics v.20	1	33,646,500	33,646,500	300,295	DIC Subang	B	B	04/05/2012	Epidemiology Lab
P12050801	Vehicle (4WD)	Mitsubishi Pajero Sport 4GX 4WD MT	1	458,000,000	458,000,000	4,087,650	DIC Subang	A	A	08/05/2012	Project Office
P12052201	Centrifuge	TOMY LC-230	1	135,543,000	135,543,000	1,209,721	DIC Subang	A	A	22/05/2012	Parasitology Lab
P12052202	Autoclave	TOMY ES-215	1	45,928,500	45,928,500	409,912	DIC Subang	A	A	22/05/2012	Bacteriology Lab
P12052901	Chest Freezer	Nihon VT-208 & TN-208	1	91,491,000	91,491,000	816,557	DIC Subang	A	A	29/05/2012	Bacteriology Lab
P12071001	8 channel Pippetor 20-200ul	CMSI, C200 - 8A-SL	1	6,412,400	6,412,400	57,231	DIC Subang	A	A	10/07/2012	Parasitology Lab
P12100401	Rabbit Retrainer	Natsume KN-317	1	6,470,625	6,470,625	57,750	DIC Subang	B	B	04/10/2012	Bacteriology Lab
P12110601	UPS for Thermal Cycler	APC Smart UPS 1500VA & Serial 230 Volt type	1	5,950,000	5,950,000	49,427	DIC Subang	B	B	06/11/2012	Bacteriology Lab
P12111201	Thermal Cycler	Bio-Rad T100	1	82,000,000	82,000,000	681,174	DIC Subang	B	B	12/11/2012	Bacteriology Lab
P13012501	Refrigerated Micro Centrifuge for PCR	Tomy MX-107	1	145,000,000	145,000,000	1,290,355	DIC Subang	B	B	12/11/2012	Bacteriology Lab
					Total	1,627,265,755	14,523,347				

*** Classification of the frequency of use of the equipment**

(by the manual for JICA coordinators)

rank	statement	frequency	others
A	used frequently	almost daily	
B	used well	1-3 times per week	
C	used in specific season(s)		needs reasons
D	not so much used	3-11 times per year	needs reasons
E	not used by specific reason		needs reasons

Local Cost

ANNEX-9

(1) Indonesia

Unit: Rupiah

	Budget Item	2011	2012	2013	2014	2015	Total Amount
1	Salary		1,602,833,000				1,602,833,000
	Additional salary for all staff	75,240,000	311,110,000				386,350,000
	Payment for Outsourcing Staf	296,400,000	402,720,000				699,120,000
	Operasional fee for staff	80,070,000	180,590,000				260,660,000
	Salary for lecturer		67,500,000				67,500,000
2	Staff training and capacity building	255,100,000					255,100,000
	Administration		152,900,000				152,900,000
	Technical (outside training)		407,300,000				407,300,000
	Inhouse training		450,736,000				450,736,000
3	Consumable, Reagentia and Equipment						0
	for Diagnostic	7,294,221,000	1,911,026,000				9,205,247,000
	For field surveillance	232,000,000	305,800,000				537,800,000
	For Administration and biosecurity	17,270,000	111,662,000				128,932,000
4	Field survey	334,400,000	431,450,000				765,850,000
5	Utilities (electricity, water, etc)	420,000,000					420,000,000
	Electricity		468,000,000				468,000,000
	Water		10,200,000				10,200,000
	Newspaper		2,290,000				2,290,000
	Telp and Internet		78,000,000				78,000,000
6	Equipment for others (Dormitory, Guest house etc.)	77,211,000	325,494,000				402,705,000
7	Facilities maintenance						0
	for Vehicles	78,000,000	184,700,000				262,700,000
	for Motorcycle		6,480,000				6,480,000
	for Building Facilities	179,452,000	331,880,000				511,332,000
8	Vehicles	450,000,000	37,500,000				487,500,000
9	Additional food						0
	for Laboratory technician		22,080,000				22,080,000
	for Others		30,000,000				30,000,000
10	Computer and Equipment for office	65,000,000	200,000,000				265,000,000
11	Infrastructure (Building, Book, Furniture etc)	3,227,634,000	1,120,810,000				4,348,444,000
12	Annual Coordination Meeting and Confirmation Test	328,500,000	489,550,000				818,050,000
13	Other	161,777,000	270,662,000				432,439,000
	Total Expenditure (Rp.)	13,572,275,000	9,913,275,000				23,485,548,000
	Grand Total (Yen)	115,852,939	84,976,576				200,829,516
	Exchange Rate (December)	0.008536	0.008572				

(2) Japan

Unit: Rupiah

	Budget Item	2011	2012	2013	2014	2015	Total Amount
1	General operating expenses	276,124,209	1,064,864,371				1,340,988,580
2	Air fares	1,615,000	22,037,900				23,652,900
3	Travel expenses (except airline fares)	26,650,000	84,913,800				111,563,800
4	Reward & compensation	13,630,000	93,640,100				107,270,100
5	Engagements (local consultants)	0	0				0
6	Engagements (local NGO)	0	0				0
7	Business agreement	0	0				0
8	Meeting cost	18,105,000	42,225,000				60,330,000
	Total Expenditure (Rp.)	336,124,209	1,307,681,171				1,643,805,380
	Grand Total (Yen)	2,869,156	11,209,443				14,078,599
	Exchange Rate (Dec.2011, 2012)	0.008536	0.008572				

* Total amount (2011) Indonesia: from Jan to Dec 2011, Japan: from Jul to Dec 2011
* (2012) From Jan to Dec 2012

Land, Building, Office, and Facility provided by Indonesian Side

ANNEX-10

No.	Item	Place	Component
1	Project Office	DIC Subang	Office room, Desks, Chairs, Air conditioners
2	Desks for experts in laboratories	DIC Subang	Desks, Chairs

List of Products and Distribution

ANNEX-11

(1) Printing

No.	Date	Item	Category	Distributed to	Printed copies
1	Oct. 2011	Project Introduction "Provek Peningkatan Laboratorium Kesehatan Hewan"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	500
2	Feb. 2012	Animal Disease Awareness "AVIAN INFLUENZA (AI)"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
3	Feb. 2012	Animal Disease Awareness "HOG CHOLERA"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
4	Feb. 2012	Animal Disease Awareness "DAGING YANG SEHAT"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
5	Feb. 2012	Animal Disease Awareness "FASCIOLOSIS"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
6	Feb. 2012	Animal Disease Awareness "BRUCELOSIS"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
7	Feb. 2012	Animal Disease Awareness "RABIES"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
8	Feb. 2012	Animal Disease Awareness "ANTHRAX"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
9	Feb. 2012	Introduction of DIC Subang "BPPV SUBANG"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
10	Feb. 2012	Introduction of DIC Subang "DAFTAR TARIF PENGUJIAN BPPV SUBANG"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
11	Jan. 2013	Subang DIC Desk Calendar 2013 (by Indonesian budget)	Calendar	Dinas Provincial/Kabupaten office, National/ Provincial Institution	100
12	Feb. 2013	Sampling method of cattle brain for BSE diagnosis (3 videos)	Video	Dinas Provincial/Kabupaten office (Slaughter houses), National/ Provincial Institution, Other DICs	40
13	Mar. 2013	Reprinted. Animal Disease Awareness "AVIAN INFLUENZA (AI)"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
14	Mar. 2013	Reprinted. Animal Disease Awareness "HOG CHOLERA"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
15	Mar. 2013	Reprinted. Animal Disease Awareness "DAGING YANG SEHAT"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
16	Mar. 2013	Reprinted. Animal Disease Awareness "FASCIOLOSIS"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
17	Mar. 2013	Reprinted. Animal Disease Awareness "BRUCELOSIS"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
18	Mar. 2013	Reprinted. Animal Disease Awareness "RABIES"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
19	Mar. 2013	Reprinted. Animal Disease Awareness "ANTHRAX"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
20	Mar. 2013	Reprinted. Introduction of DIC Subang "BPPV SUBANG"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000
21	Mar. 2013	Reprinted. New price list for diagnosis "DAFTAR TARIF PENGUJIAN BPPV SUBANG"	Leaflet	Dinas Provincial/Kabupaten office, National/ Provincial Institution, Farmers Cooperative	1000

(2) Research findings/ Papers

No.	Date of receipt	Title	Author	Journal/ Magazine	Media
1	Dec. 2011	Kasus Colibacillosis Pada Ayam Diwilayah Kerja BPPV Subang Tahun 2011	Dr Trian, Dr Shibahara, etc.	-	Poster
2	Dec. 2011	Kejadian Mycoplasmosis Pada Babi Diwilayah Kerja BPPV Subang Tahun 2011	Dr Trian, Dr Shibahara, etc.	-	Poster
3	Dec. 2011	Pengembangan Sistem ITS-1 PCR Menggunakan Kaitu FTA® DAN Buffer Ampdirect® plus untuk Deteksi Infeksi Trypanosoma Evansi	Dr Irok, Dr Nakamura	-	Poster
4	Dec. 2011	Penentuan High Pathogenic dan Low Pathogenic Virus Avian Influenza (AI) H5 secara In Vitro Menggunakan Chicken Embryo Fibroblast (CEF)	Dr Suryo, Dr Trian, etc	-	Poster
5	Sep. 2012	Pengembangan Diagnosa Avian Influenza Secara Imunohistokimia (IHK) Pada Kasus Lapangan Di BPPV Subang	Dr Rinto, etc	-	Poster
6	Mar. 2013	Survey on gastrointestinal parasites and detection of Cryptosporidium spp. on cattle in West Java, Indonesia	Dr Sylvia, Dr Matsubayashi, etc.	Asian Pacific Journal of Tropical Medicine	Paper

(3) Manuals / Protocols

No.	Date/ Year	Title	Category	Distributed to	Remarks
1	2011	Fundamental protocol on sterilization with autoclave and filtration	Technical Material	Virology including cell culture section	
2	2011	Protocols for preparation of buffer solution, balance salt solution (BSS) and reagents such as phosphate buffer solution (PBS), Hanks' BSS, Earle's solution, phenol red solution to be used, for cell culture	Protocol	Virology including cell culture section	
3	2011	Protocol for preparation of antibiotics to be used for cell culture and treat field materials	Protocol	Virology including cell culture section	
4	2011	Protocol for preparation of culture media such as yeast extract lactalbumine hydrolysate Earle's media (YLE), tryptosephosphate broth (TPB) with other necessary reagent	Protocol	Virology including cell culture section	
5	2011	Protocols for primary cell culture of chicken embryo fibroblast (CEF) and chicken embryo kidney (CEK)	Protocol	Virology including cell culture section	
6	2011	Protocols for preparation of dispersants such as trypsin, dispase, and trypsin-versene to be used for primary cell culture and established cell lines	Protocol	Virology including cell culture section	
7	2011	Protocol for HI antibody tests of Newcastle Disease (ND) and Avian Influenza in accordance with OIE terrestrial manual	Protocol	Virology and Serology	for measurement of HI antibody titer and identification of isolated viruses
8	2011	Visual protocol for rapid HA test	Technical Material	Virology and Serology	
9	2011	Visual protocol for occipital foramen route for brain sampling in Rabies inspection	Technical Material	Virology and Pathology	
10	2011	Visual protocol for preparation of brain specimen in Rabies inspection	Technical Material	Virology and Pathology	
11	2011	Guidance on primers for detection of major viral diseases of poultry, swine, bovine and zoonosis (rabies) with PCR / Real-Time PCR test	Technical Material	Biotechnology	
12	2011	Protocol for flexible laboratory working record matrix sheet	Protocol	Virology and Serology	
13	2011	Protocol for working record of inoculation test into chicken embryonated eggs	Protocol	Virology	
14	2011	Protocol for working record of virus content test in poultry live vaccines	Protocol	Virology	
15	2011	Protocol for working record of virus test with cell culture in a 96-well microplate	Protocol	Virology	
16	2011	Protocol for working record of primary cell culture	Protocol	Virology including cell culture section	
17	2012	Protocol for calculation of 50 % tissue culture infection dose (TCID50) and 50 % egg infection dose (EID50)	Protocol	Virology	
18	2012	Protocol for virus neutralization antibody titration in a 96-well microplate	Protocol	Virology	
19	2012	Protocol for frozen storage of cells	Protocol	Virology including cell culture section	
20	2012	Protocol for estimation of the time required for pelleting viruses	Protocol	Virology	
21	2012	Protocol for concentration of viruses as etiological agents of major animal diseases	Protocol	Virology	
22	2012	Protocol for preparation of agar gel immunodiffusion (AGID) antigen of avian influenza	Protocol	Virology	
23	2012	Protocol for agar gel immunodiffusion (AGID) tests of avian influenza, avian encephalomyelitis and leucocytozoonosis	Protocol	Virology	
24	2012	Protocol for preparation of challenge virus standard (CVS) for rabies test	Protocol	Virology	
25	2012	Protocol for detection of rabies virus with cell culture	Protocol	Virology including cell culture section	
26	2012	Protocol for rabies virus titration with cell culture	Protocol	Virology including cell culture section	
27	2012	Protocol for plaque test for differentiation of pathogenicity in avian influenza virus and newcastle disease virus	Protocol	Virology including cell culture section	
28	2012	Protocol for cell cloning of established cell line with a 96 -well microplate	Protocol	Virology including cell culture section	
29	2012	Protocol for working record of AGID test	Protocol	Virology and Serology	
30	2012	Protocol for working record of NDAI HA antigen preparation procedure	Protocol	Virology	
31	2012	Protocol for working record of inspection of plaque formation	Protocol	Virology	
32	2012	Protocol for working record of making hyperimmune antiserum	Protocol	Virology	
33	2012	Protocol for working record of cell frozen storage procedure	Protocol	Virology including cell culture section	
34	2012	Protocol for working record of cycle schedule for reviving cells under frozen storage	Protocol	Virology including cell culture section	
35	8/2011	Basic concept in diagnosis of the disease	Protocol	Bacteriology, Public Health	
36	8/2011	Essential media and reagents for characterization of bacteria	Protocol	Bacteriology, Public Health	
37	8/2011	Bacterial characters and identification	Protocol	Bacteriology, Public Health	
38	11/2011	Preparation of yeast extract	Protocol	Bacteriology, Public Health	
39	1/2012	Oxidation or fermentation of glucose (OF test)	Protocol	Bacteriology, Public Health	
40	9/2011	Isolation and characterization of salmonella from feces of chicken	Protocol	Bacteriology, Public Health	
41	2011	Tests and media: Test of urease activity	Protocol	Bacteriology	
42	2011	Tests and media: Phenol red solution	Protocol	Bacteriology	
43	2012	Tests and media: Long-term preservation of bacteria	Protocol	Bacteriology	
44	2012	Tests and media: Malonate broth	Protocol	Bacteriology	
45	2012	Tests and media: Nitrate reduction test	Protocol	Bacteriology	
46	2012	Tests and media: Temperature (heat) tolerance test	Protocol	Bacteriology	
47	2012	Tests and media: Ryu KOH technique (KOH String test) helpful for Gram staining	Protocol	Bacteriology	
48	2012	Tests and media: Sugar utilization test (OF test)	Protocol	Bacteriology	
49	2012	Tests and media: Coagulase test	Protocol	Bacteriology	
50	5/2012	Media for cultivation of general mycoplasmas	Protocol	Bacteriology	
51	5/2012	Isolation of mycoplasmas from respiratory tract in chicken	Protocol	Bacteriology	
52	10/2012	Cultivation of Campylobacter	Protocol	Bacteriology	
53	2/2013	Characters of *Pasteurella multocida* and *Mannheimia haemolytica*.	Protocol	Bacteriology	
54	10/2012	Note for Blood Smear Examination	Protocol	Parasitology	
55	10/2012	Note for Chicken Leucocytozoonosis	Protocol	Parasitology	
56	11/2012	Note for Haemotrophic Mycoplasmas (haemoplasmas)	Protocol	Parasitology	
57	11/2011	Diagnosis of Cryptosporidiosis	Technical Material	Parasitology	
58	11/2011	Diagnosis of Chicken Coccidiosis (Eimeria)	Technical Material	Parasitology	
59	11/2011	Diagnosis of Giardiasis	Technical Material	Parasitology	
60	12/2011	Protocols at Indonesia laboratory, 1.Fecal examination for Coccidia, 2.Purification of oocysts, 3 Sporulation of oocysts, 4.Counting (OPG), 5.Morphological identification of Coccidia, 6.Isolation of one oocyst of Eimeria species and cultivate in chicken, 7.Histological examination of infected intestine, 8.Genetical identification of Eimeria species (Cryptosporidium/ Giardia), 9 Purification of parasites using QIAamp DNA Stool Mini Kit, 10 Additional fecal examination, 11 Immune fluorescence analysis, 12 Giemsa staining	Protocol	Parasitology	
61	6/2012	Basic concept of epidemiology	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
62	6/2012	Causation	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
63	6/2012	Quantification of disease occurrence	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
64	6/2012	Design of epidemiological studies	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
65	6/2012	Interpretation of diagnostic tests	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
66	6/2012	Sampling	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
67	6/2012	Surveillance	Technical Material	Epidemiology, other DICs, B-type lab	Epidemiology
68	6/2012	Data & database	Technical Material	Epidemiology, other DICs, B-type lab	Statistics
69	6/2012	Data Visualization	Technical Material	Epidemiology, other DICs, B-type lab	Statistics
70	6/2012	Descriptive statistics	Technical Material	Epidemiology, other DICs, B-type lab	Statistics
71	6/2012	Distribution & estimation	Technical Material	Epidemiology, other DICs, B-type lab	Statistics
72	6/2012	Hypothesis Testings	Technical Material	Epidemiology, other DICs, B-type lab	Statistics

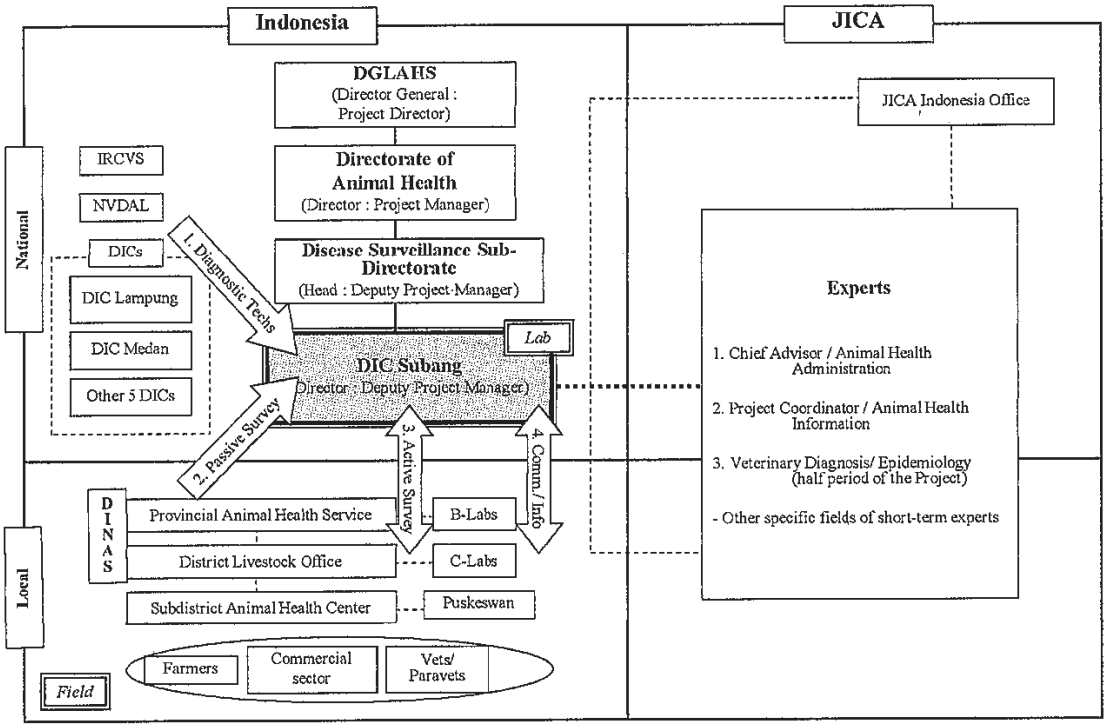
List of Seminar and Presentation

ANNEX-12

No.	Date	C/P or Expert	Presentator	Presentation Title	Name of the Seminar/ Meeting	Number of Participants	Place	Organization of Participants
1	2011/7/29	Expert	Mr. Maeda	Outline of the Project	Project First Meeting	35	DIC Subang	Staff of DIC Subang
2	2011/8/5	C/P	Dr. Tri	Swine mycoplasmosis	Diagnostic Seminar	29	DIC Subang	Staff of DIC Subang
3	2011/8/5	C/P	Dr. Trian	Procedures of sending sample pathology laboratory	Diagnostic Seminar			
4	2011/8/5	C/P	Mr. Eka	Quick response on pathology laboratory	Diagnostic Seminar			
5	2011/8/5	Expert	Dr. Koike	OIE Diagnostic Standard	Diagnostic Seminar			
6	2011/8/12	C/P	Dr. Tri	Avian colibacillosis	Diagnostic Seminar	20	DIC Subang	Staff of DIC Subang
7	2011/8/12	Expert	Dr. Koike	OIE Diagnostic Standard	Diagnostic Seminar			
8	2011/8/19	C/P	Dr. Trian	Avian colibacillosis	Diagnostic Seminar	27	DIC Subang	Staff of DIC Subang
9	2011/8/19	C/P	Dr. Rince	Monthly Diagnostic Progress - Isolation of bacteria from chicken -	Diagnostic Seminar			
10	2011/8/19	C/P	Dr. Suryo	Monthly Diagnostic Progress	Diagnostic Seminar			
11	2011/8/26	C/P	Dr. Tri	JICA - Pathology Training Progress	Project Monthly Meeting	29	DIC Subang	Staff of DIC Subang
12	2011/8/26	C/P	Dr. Rince	JICA - Bacteriology Progress	Project Monthly Meeting			
13	2011/8/26	C/P	Dr. Sodirun	JICA - Virology Progress	Project Monthly Meeting			
14	2011/8/26	Expert	Mr. Maeda	Activity Plan on this Month	Project Monthly Meeting			
15	2011/9/8	Expert	Dr. Shibahara	DIC Subang To be the leading Diagnostic Lab in Indonesia	Project Opening Ceremony	75	DIC Subang	Japan Embassy, JICA, DGLAHS, National Research Istitute, Province and District Animal Health Services, B/C type laboratories
16	2011/9/8	Expert	Mr. Maeda	Introduction of the New Project	Project Opening Ceremony			
17	2011/9/8	C/P	Dr. Tri	Pathology Training Progress	Project Opening Ceremony			
18	2011/9/8	C/P	Dr. Bagyaningtyas	Bacteriology Lab Progress	Project Opening Ceremony			
19	2011/9/8	C/P	Dr. Sodirun	Topics in Virology & Serology	Project Opening Ceremony			
20	2011/9/9	Expert	Dr. Koike	Notifiable Avian Influenza in view of amino acid sequence of cleavage site and Pathogenicity in chicken	Diagnostic Seminar	15	DIC Subang	Staff of DIC Subang
21	2011/9/16	Expert	Dr. Koike	Case Study of AI Control in some Foreign Country	Diagnostic Seminar	20	DIC Subang	Staff of DIC Subang
22	2011/9/23	C/P	Dr. Satriyo	Survey to estimate prevalance of Avian Influenza in West Java	Report of Training in Japan	12	DIC Subang	Staff of DIC Subang
23	2011/9/23	C/P	Dr. Ali	Surveillance of Brucellosis in Target Area	Report of Training in Japan			
24	2011/9/23	C/P	Mr. Eka	Utilization of Automatic Staining Machine	Report of Training in Japan			
25	2011/9/27	Expert	Mr. Maeda	Presentasi Proyek JICA di DIC Subang	National Parasitology Training	30	DIC Subang	Parasitology Lab staffs from all DICs,
26	2011/9/27	C/P	Dr. Sodirun	Presentasi Perkembangan DIC Subang	National Parasitology Training			
27	2011/11/4	C/P	Dr. Ali	Monthly Progress on October (Birology Lab)	Project Monthly Meeting	30	DIC Subang	Staff of DIC Subang
28	2011/11/4	Expert	Mr. Maeda	Activity Plan on this Month	Project Monthly Meeting			
29	2011/11/4	Expert	Dr. Kobayashi	Introduction of Epidemiology	Project Monthly Meeting			
30	2011/11/10	Expert	Dr. Kobayashi	Achievement of 2 weeks activity in DIC Subang	Project Briefing Session of Epidemiology Laboratory	25	DIC Subang	Staff of DIC Subang
31	2011/11/10	C/P	Dr. Satriyo	Active and Passive Surveillance in DIC Subang	Project Briefing Session of Epidemiology Laboratory			
32	2011/11/10	Expert	Dr. Matsubayashi	Profile of Expert	Project Briefing Session of Epidemiology Laboratory			
33	2011/11/22	C/P	Dr. Suharno -	Introduction of Modified Diagnostic Method Connected with Floatation and Sedimentation	Parasitic Diagnosis Seminar	28	DIC Subang	Staff of DIC Subang
34	2011/11/22	C/P	Dr. Silvia	Identification of Intestinal Parasites by the Modified Method and Result of Examination in Cattle	Parasitic Diagnosis Seminar			
35	2011/12/2	C/P	Dr. Silvia	Monthly Progress on November	Project Monthly Meeting	29	DIC Subang	Staff of DIC Subang
36	2011/12/2	C/P	Dr. Ali	Monthly Progress on November	Project Monthly Meeting			
37	2011/12/2	C/P	Dr. Satriyo	Monthly Progress on November	Project Monthly Meeting			
38	2011/12/2	C/P	Dr. Suryo	Monthly Progress on November (Isolation of HPAIV)	Project Monthly Meeting			
39	2011/12/2	C/P	Dr. Rinto	Monthly Progress on November (Rabies diagnosis)	Project Monthly Meeting			
40	2011/12/2	C/P	Mr. Ipat	Monthly Progress on November (Trial of Cell culture)	Project Monthly Meeting			
41	2011/12/15	C/P	Dr. Suharno	Blood smear and fecal examinations for passive and active surveillance	Parasitology Lab Activity Termination Seminar	28	DIC Subang	Staff of DIC Subang
42	2011/12/15	Expert	Dr. Matsubayashi	Outline of short-term expert's activity	Parasitology Lab Activity Termination Seminar			
43	2012/1/27	C/P	Dr. Rinto	Pathological Diagnosis of Fowl and Swine Viral Diseases	Report of Training in Japan	21	DIC Subang	Staff of DIC Subang
44	2012/1/27	C/P	Dr. Isrok	Improvement of diagnostic techniques on Parasitic disease	Report of Training in Japan			
45	2012/2/17	Expert	Dr. Mikami	My research in NIAH and introduction of special staining	Short-term expert activity initiation seminar	21	DIC Subang	Staff of DIC Subang
46	2012/2/17	C/P	Dr. Satriyo	Results of Project Baseline Survey	Short-term expert activity initiation seminar			
47	2012/3/14	C/P	Dr. Rince	Project Accomplishment in 2011 & Activity Plan in 2012	Joint Coordinating Committee	31	DGLAHS	DIC Subang, DGLAHS, Provincial Animal Health Services, B/C type labs,
48	2012/3/14	C/P	Dr. Satriyo	Results of the Baseline Survey	Joint Coordinating Committee			
49	2012/3/14	C/P	Dr. Fitul	Activity plan in Project pilot site	Joint Coordinating Committee			
50	2012/3/28	Expert	Dr. Mikami	Poisoning by toxic plants in cattle and case study of gatroiddestina diseases in cattle and pigs	Workshop patologi veteriner dan pertemuan ilmiah nasional	45	DIC Subang	Pathology staff of all DICs, DGLAHS, National Institute, University
51	2012/4/20	C/P	Dr. Rinto	Immunohisto chemistry procedure for Avian Influenza virus	Pathological diagnosis seminar	20	DIC Subang	Staff of DIC Subang
52	2012/4/20	C/P	Mr. Eka	Improvement of histopathological diagnosis with special staining	Pathological diagnosis seminar			
53	2012/4/25	Expert	Dr. Mikami	Activities in DIC Subang ~ To improve pathological diagnosis	Short-term expert activity termination seminar	18	DIC Subang	Staff of DIC Subang
54	2012/4/25	C/P	Dr. Tri	Improvement of Diagnosis in Pathology Lab	Short-term expert activity termination seminar			
55	2012/6/15	C/P	Dr. Ali	Report The 7th A-PBA Biosafety Conference	Training report seminar on Biosafety and Brucellosis	22	DIC Subang	Staff of DIC Subang
56	2012/6/15	C/P	Dr. Isrok	Animal Biorisk Management	Training report seminar on Biosafety and Brucellosis			
57	2012/6/15	C/P	Dr. Ali	Laboratory Diagnosis of Brucellosis	Training report seminar on Biosafety and Brucellosis			
58	2012/6/15	C/P	Dr. Sodik	Brucellosis in Cattle, Sheep & Goats: Fundamentals of surveillance and eradication programs	Training report seminar on Biosafety and Brucellosis			
59	2012/7/13	C/P	Dr. Satriyo	Brucellosis control trial in collaboration with DIC Subang and Jakarta Province supported by JICA	New proposals on brucellosis control activities in Jakarta and Banten Province	15	DIC Subang	Staff of DIC Subang
60	2012/7/13	C/P	Dr. Sodik	Survey sistem peternakan pada kerbau di Prov Banten	New proposals on brucellosis control activities in Jakarta and Banten Province			
61	2012/9/7	C/P	Dr. Rinto	The usage of personal safety equipments in BSL lab	BSL lab operation guidance seminar	16	DIC Subang	Staff of DIC Subang
62	2012/9/7	C/P	Dr. Suryo	The staff movements in BSL lab	BSL lab operation guidance seminar			
63	2012/10/12	Expert	Dr. Fujisaki	Ticks survive at a threshold between engorgement and starvation	Short-term Expert Parasitology Seminar	35	DIC Subang	DIC Subang, BBI Lembang, BET Cipelang and BP2HK Cikole
64	2012/11/2	C/P	Dr. Silvia	Review on "Advances in Diagnosis of Protozoan Disease"	Parasitology seminar & Report of Training in Japan	24	DIC Subang	Staff of DIC Subang
65	2012/11/2	C/P	Dr. Trian	JICA Training Report on "Zoonosis Control"	Parasitology seminar & Report of Training in Japan			
66	2012/11/2	C/P	Mr. Afif	JICA Training Report on "Zoonosis Control"	Parasitology seminar & Report of Training in Japan			
67	2012/11/2	C/P	Dr. Tyas	JICA Training Report on "Research on Veterinary Technology"	Parasitology seminar & Report of Training in Japan			
68	2012/11/13	C/P	Dr. Isrok	Review on "Reinstatement of Rhipicephalus (Boophilus) australis" and Tick Collection Activity in Sumedang, West Java	Parasitology Seminar	14	DIC Subang	Staff of DIC Subang
69	2012/11/29	C/P	Dr. Isrok	JICA Short-term Expert Activity Report and Recommendations in the field of Parasitic Disease (Microscopical works)	Short-term expert activity termination seminar	15	DIC Subang	Staff of DIC Subang
70	2012/11/29	Expert	Dr. Fujisaki	JICA Short-term Expert Activity Report and Recommendations in the field of Parasitic Disease (Concluding remarks)	Short-term expert activity termination seminar			
71	2013/1/25	Expert	Dr. Shibahara	Activities in DIC Subang ~ To improve pathological diagnosis	Short-term expert seminar	24	DIC Subang	Staff of DIC Subang
72	2013/2/19	Expert	Dr. Shibahara	BSE prevention and control measures in Japan	In-house Training Pengendalian dan Pencegahan penyakit BSE dan FMD di Indonesia	38	DIC Subang	DIC Subang, DGLAHS, Slaughter house of districts, B/C type lab, other DICs
73	2013/2/19	Expert	Dr. Shibahara	FMD prevention and control measures in Japan	In-house Training Pengendalian dan Pencegahan penyakit BSE dan FMD di Indonesia			
74	2013/2/19	C/P	Dr. Tri	BSE Ongoing Surveillance Program	In-house Training Pengendalian dan Pencegahan penyakit BSE dan FMD di Indonesia			
75	2013/2/21	Expert	Dr. Kishima	Biosafety in Disease Investigation Center Subang	Donner Meeting - 8th Technical Briefing Meeting on Laboratory Supports	58	DGLAHS	DICs, DGLAHS, Foreign donner
76	2013/3/1	Expert	Dr. Miyamoto	Introduction of my activity in NIAH and plan in public health laboratory	Short-term Expert Activity Plan & Diagnosis Seminar	25	DIC Subang	Staff of DIC Subang
77	2013/3/1	C/P	Dr. Tri	Outbreak of Chronic Suppurative Pneumonia Associated with Pasteurella sp and Mycoplasma sp	Short-term Expert Activity Plan & Diagnosis Seminar			
78	2013/3/1	C/P	Ms.Enis	Isolation of bacteria and mycoplasmas from pneumonic lungs of cattle Bacteriology	Short-term Expert Activity Plan & Diagnosis Seminar			
79	2013/3/13	Expert	Dr. Koike	Blood sampling with filter paper	Diagnostic Seminar	15	DIC Subang	Staff of DIC Subang
80	2013/3/14	Expert	Dr. Shibahara	Activities and issues in DIC Subang ~ To improve pathological diagnosis	Short-term expert activity termination seminar	20	DIC Subang, DGLAHS (Mar.15)	Staff of DIC Subang (Mar.14), DGLAHS (Mar.15)
81	2013/3/14	C/P	Dr. Tri	Final Report JICA Short-term Activities in Pathology Laboratory of DIC Subang	Short-term expert activity termination seminar			
82	2013/3/14	C/P	Dr. Rinto	Improved Histopathological Diagnosis Using H&E Staining and Immunohistochemistry in Field Cases	Short-term expert activity termination seminar			
83	2013/3/14	C/P	Mr. Eka	Improvement of Immunohistochemical method for diagnosis of numerous priority diseases - preparing positive controls for IHC and Gram staining -	Short-term expert activity termination seminar			
84	2013/4/17	Expert	Mr. Miyamoto	Transfer of Techniques about Analytical Methods for Residual Peptickles and Antibiotics in Animal Products, and Future Activities in Veterinary Public Health Laboratory of DIC Subang	Short-term expert activity termination seminar	19	DIC Subang, DGLAHS (Apr.18)	Staff of DIC Subang (Apr.17), DGLAHS (Apr.18)
85	2013/4/17	C/P	Dr. Ali	Identification of Organochlorines in Animal Products Using GC	Short-term expert activity termination seminar			
86	2013/4/17	C/P	Dr. Putlik	Determination of Residual Quinolones in Animal Products using HPLC	Short-term expert activity termination seminar			
87	2013/4/17	C/P	Mr. Dudi L	Extraction of Quinolones from Animal Products for HPLC Analysis	Short-term expert activity termination seminar			
88	2013/4/17	C/P	Ms. Fenty	Extraction of Organochlorines from Animal Products for GC Analysis	Short-term expert activity termination seminar			

Project Organization Chart

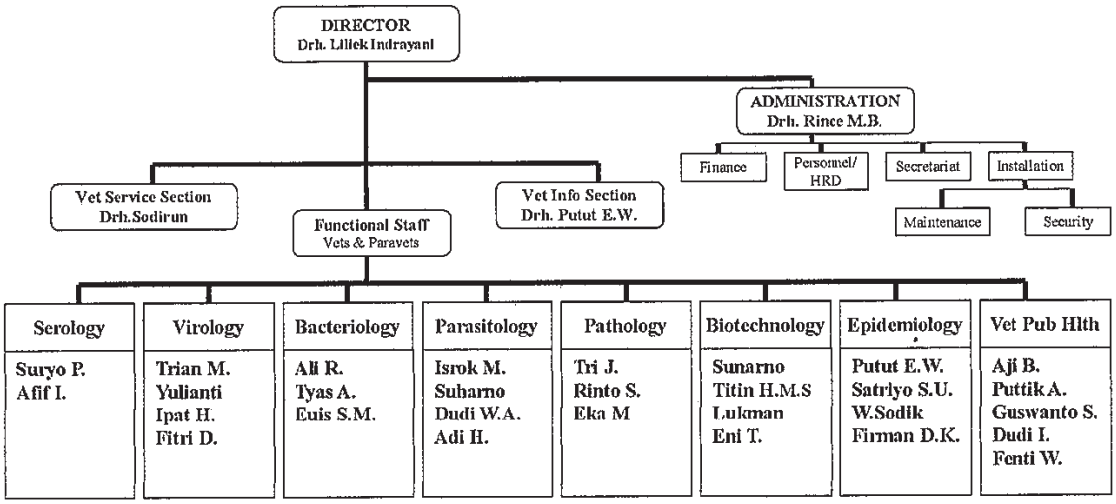
ANNEX-13



ORGANIZATION STRUCTURE OF DIC SUBANG

(as of March 2013)

ANNEX-14



Accomplishment Grid (Prepared by the Project)

ANNEX-15
as of Mar. 2013

Outputs and Activities			2011		2012				2013				2014				2015		Progress	Issues / Plan	Accomplishment (%)
			III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II			
Output 1	The DIC Subang staffs obtain basic and systematic diagnosis for animal diseases.																				
Activity 1-1	The Staff of DIC Subang surveys the current capacities and needs in the diagnostic techniques at DIC Subang.	Planned Actual	x o	oo															Conducted a baseline survey in DIC Subang and grasped the situation.	-	100%
1-2	Based on the results of the survey, the staff of DIC Subang sets the necessary diagnostic techniques (kind of disease, diagnostic method etc.) and a target levels of the techniques for each laboratory.	Planned Actual	x o	x ooo															Already conducted surveys at each laboratory and set target levels.	-	100%
1-3	The staff of DIC Subang makes the plan of mastering diagnostic techniques for each laboratory of DIC Subang.	Planned Actual		xx oo	oo		x o				x				x				Already made the draft mastering plans for each lab.	The plan will be reviewed periodically.	80%
1-4	The staff of DIC Subang makes the list of trainer resources, for example, staffs of other DICs, IRCVS, NVDAL, Vet Faculty of university, foreign experts etc.	Planned Actual		xx o	oo														Already made the resource list of some fields.	Continue making the resource list.	50%
1-5	The staff of DIC Subang learns the planned diagnostic techniques from the resources trainers through training in Indonesia, Japan or third country.	Planned Actual		xxx ooo	xxx ooo	xxx ooo	xxx ooo	xxx ooo	xxx	xxx	xxx								Continuously transferring diagnostic techniques by long & short-term experts.	Technical training has been continued by mainly JICA experts.	70%
1-6	The staff of DIC Subang receives the proficiency tests and be evaluated by resource trainers about the transferred diagnostic tests.	Planned Actual			x o			o	x				x				x		Some labs had proficiency test and be compared the results with other DICs. Also short-term experts conduct the test.	In order to apply for accreditation of ISO, DIC Subang is required to have proficiency test periodically.	30%
Output 2	The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staffs is strengthened.																				
Activity 2-1	The staff of DIC Subang analyzes the current situation of sample flow and examinations at DIC Subang.	Planned Actual		x o															Conducted a baseline survey in DIC Subang and grasped the situation.	-	100%
2-2	The staff of DIC Subang analyzes the current situation of sample submission from the fields.	Planned Actual		x o	x o														ditto	-	100%
2-3	The staff of DIC Subang makes the plan of improved sample flow and examination system at DIC Subang. (Measures for the sample senders will be planed in Output 4)	Planned Actual		o	xx ooo	o													DIC Subang staffs are making procedures of sample reception & diagnosis flow related to the application of ISO	-	80%
2-4	The staff of DIC Subang conducts the improved diagnostic services.	Planned Actual				xxx ooo	xxx ooo	xxx ooo	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		Improving continuously.	Sometimes it is difficult to collect epidemiological information of the sample. It is also necessary to teach the methods to customers.	30%
2-5	The staff of DIC Subang monitors the improved diagnostic services (sample reception, diagnostic flow and customer's comment etc.) and conducts the feed-back to the system.	Planned Actual					x o		x		x		x		x		x		-	-	10%
Output 3	The capacity to conduct the surveys and the technical support of animal disease control (Active Surveillance) in the pilot sites of DIC Subang staffs is strengthened.																				

as of Mar. 2013

Outputs and Activities			2011		2012				2013				2014				2015		Progress	Issues / Plan	Accomplishment (%)
			III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II			
Activity 3-1	The staff of DIC Subang conducts preliminary surveys to select pilot site(s) from livestock / poultry industry promoted areas.	Planned		xxx	oo														Conducted a baseline survey of the stakeholders and grasped the situation.	-	100%
		Actual		ooo																	
3-2	The staff of DIC Subang specifies the pilot site and some animal diseases for the surveys and control.	Planned			xx	oo													Already picked up some candidate place and target disease.	More detailed activity plan and discussion with local government have	80%
		Actual		oo	ooo																
3-3	The staff of DIC Subang plans and conducts the surveys on animal health considering the specificity of promoted livestock / poultry sectors in the pilot site through cooperation with B/C type laboratories.	Planned			ooo	ooo	ooo	xxx		xxx		xxx		xxx					Brucellosis surveillance in West Java province had already been conducted. Also the active surveillances have been done continuously.	Active surveillance has already been carried out as a routine work, but the purpose of the survey should be reconsidered.	30%
		Actual																			
3-4	The staff of DIC Subang analyses the results of surveys and develops the recommendation reports to the authorities for the improvement of animal health situation.	Planned						oo	x		x		x		x				Epidemiology & Bacteriology lab still conducting the test and analysis for brucellosis surveillance in West Java, and interim report was shown in annual coordination meeting.	Conduct the coordination meeting at least once a year, and the survey results will presented to the related institutions	20%
		Actual																			
3-5	The staff of DIC Subang organizes and conducts the monitoring of the animal health improvement for the follow-up of recommended activities and the feed-back.	Planned							x		x		x		x					-	0%
		Actual																			
Output 4	The DIC Subang staffs conduct the continuous support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health in the pilot sites.																				
Activity 4-1	The DIC Subang issues periodical Newsletters to provide and exchange information on animal health for laboratory workers, field vets and farmers in the 3 provinces of West Java area.	Planned		x		x		x		x		x		x		x		x	Web site of DIC Subang has been developed and the news of our activity is released periodically. 10 kinds of awareness leaflets have already been published.	We focused on the web site developing other than the newsletter because it's not common method here. The technical information in web site is still not enough.	30%
		Actual		o	o	oo															
4-2	The staff of DIC Subang examines and conducts necessary measures of information exchange (on site meetings, etc.) for veterinary officers, laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories.	Planned			xxx				xxx				xxx				xxx		Held annual coordination meeting 2 times. More than 30 organizations participated in it. Also, meeting with B/C lab and puskeswan had been conducted.	Conducts the coordination meeting at least once a year to promote the information exchange between the institutions. We also actively promote technical training for local veterinary	20%
		Actual		o	ooo	o		o													
4-3	The staff of DIC Subang makes plans of sustainable activities of awareness and technical supports for improvement of animal health and production, which are necessary for laboratory workers, field vets and farmers in the pilot site. (Utilize other JICA projects outcomes such as a Flip-chart for dairy farmers.)	Planned				xxx				xxx				xxx				xxx	DIC Subang is planning to strengthen the function of training for local government officers, and established the accomodation facilities.	For each province, the project will hold a technical workshop for the staff of DINAS animal health services and B type laboratories	10%
		Actual		o		o o															
4-4	The staff of DIC Subang conducts sustainable activities of awareness and technical support for the laboratory workers, field vets and farmers in the pilot site through cooperation with B/C	Planned						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	Already conducted some diagnostic training seminar for laboratory workers of local government.	-	10%
		Actual		o		o o	o														
4-5	The staff of DIC Subang organizes and conducts the monitoring and the feed-back of the results to the next actions.	Planned							x				x				x		Questionnaire for the participants of epidemiology training has been conducted and the result was analyzed.	-	10%
		Actual				o	o														

Progress and Results on the Project Activities based on PO (Plan of Operation)

ANNEX-16

As of March 2013

No.	Objectively Verifiable Indicators	Status before the project	Progress at the time of review
1-1	The technical levels acquired on diagnostic tests in each laboratory (8 laboratories) of DIC Subang attain to the target levels set up in the "Project Technical Target Sheet" by June 2013.	The target goal had not been set.	The target goal until 2014 was set in each lab. The goal until 2012 was almost accomplished. They have been continue acquiring techniques according to this plan.
2-1	18 veterinary staffs in DIC Subang are certified by the project that he/she is able to make a comprehensive diagnostic judgment based on the results of tests in each laboratory.	The head of veterinary service section makes diagnosis according to the results of each laboratory test.	For now, Dr.Sodirun makes final diagnosis as a technical manager. Other staffs are not in a position to make final diagnosis, and also its ability are not yet enough.
3-1	18 veterinary staffs in DIC Subang reach to 75% comprehension level of conducting surveillance on animal health (Planning, Implementing, Monitoring and Feedback the results to next survey).	Head of diagnostic service indicates the planning and implementation of disease surveillance, another member of staff was working accordingly.	The system that all veterinarian and paramedic staff participate in disease surveillance was established. Research of understanding of surveillance has not yet implemented.
3-2	8 veterinary staffs in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers.	The recommendations for the customer had not been made.	Disease surveillance in pilot site will be done in near future.
4-1	DIC Subang (Vet. Information section) issues periodical Newsletter of animal health 2 times a year for laboratory workers, field vets and farmers in the three provinces by June 2012.	Information through such as newsletter, has not been carried out.	Instead of the newsletter, web site of DIC Subang was developed to provide information on a regular basis. Also, the project issued awareness brochures of livestock disease and they were distributed to stakeholders.
4-2	8 veterinary staffs in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013.	Technical support activity for the stakeholder had not been implemented.	The coordination meeting for the stakeholder have been conducted at least once a year. In addition to this, the awareness and technical support activities at the pilot site will be implemented from 2013.
4-3	Achievement rate of annual activity plan (set in 4-2) becomes more than 90% in the pilot site.	Awareness activity had not been planed.	Until for now, we conduct activities according to the plan.

	Objectively Verifiable Indicators	Status before the project	Achieve prediction at the time of evaluation
Project Purpose	1. The number and the kind of animal disease diagnosis at DIC Subang becomes more than 35,000 samples in a year and 16 kind at the end of the Project.	The number of sample for diagnosis was 14,875 (15 diseases) in 2010.	32,016 samples (23 diseases) in 2011 and 47,466 samples (23 diseases) in 2012.
	2. The feedbacks of diagnosis (Passive Surveillance) to the customers are returned promptly in prescribed days set by the Project.	According to the result of baseline survey, it depends on the kind of test, but the average is about 1 week. But 20% of the customer get the result after more than 3 weeks.	The flow of sample receipt and result feedback has been improved.
	3 The DIC Subang staffs are ready to conduct Active Surveillance (Planning, Implementing, Monitoring and Feedback the results to next survey) on animal health considering with livestock / poultry industry promotion in the pilot sites more than 2 times/site in a year.	The pilot sites had not yet been set.	The pilot sites were set and disease surveillances were planned. From now on, DIC Subang will conduct research and feedback according to this plan.
	4 80% of inquired customers (stakeholders such as DINAS staffs, Field vets, and Farmers) recognizes improvement of diagnosis services of DIC Subang by the end of the Project.	Recognition of DIC Subang was low in 2010, there were no customer to ask diagnosis besides the local government.	The study will be done at the time of mid-term review.
Overall Goal	1 Number of test samples for animal disease diagnoses at DIC Subang in West Java area increases 10% by the year of 2018 in comparison with the number in 2015.	Until the end of the project, we assume that the diagnostic sample number increase of 5% every year. After that, it is to increase 10 percent in three years.	If we limit the diagnostic sample number in DIC Subang, by the gap of pricing with local government lab, achievement of the target is difficult. In the sense that we suppose the improvement of the situation in whole area, you should change it to number of samples in whole DIC Subang area. (Index 1 of project goal as well).
	2 Number of district where the animal disease control is monitored by DIC Subang amounts to 39 of all 39 districts in West Java area by the year of 2018.	The number of district monitored was 31 in 2010.	DIC Subang monitors 37 districts in 2012. By the time of ex-post evaluation, all the districts that have livestock is supposed to be monitored.
	3 Number of awareness and technical support activity concerning animal health conducted by DIC Subang in West Java area goes up 20% by the year of 2018 in comparison with the number in 2015.	There was no awareness and technical support activity conducted by DIC Subang.	In the first half of the project, we have conducted activities focused on improving diagnostic capability in the lab. In the latter half, we supposed to promote the awareness and technical support activities especially in the pilot site.

Project on Capacity Development of Animal Health Laboratory

Target Goal in Bacteriology Laboratory by Year 2015

ANNEX-17

Laboratory	Coordinator	Lab. member	Target setting date	Target date	Evaluator
Bacteriology	Dr. Bugyaningtyas A.	Dr. Ali rahmawan, Ms.Euis Siti Mariamah,A.Md	Feb. 17, 2012	July, 2015	Dr. Kishima

Project Goal / Output	☐The quality and quantity of animal disease diagnosis service at DIC Subang are improved. 1. Obtain basic and systematic diagnosis techniques for animal diseases. 2. The capacity of Passive Surveillance is strengthened. 3. The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	☐Capacities, needs and target levels in the diagnostic techniques, ☐Mastering diagnostic techniques, ☐Listing & Utilize Trainer resources, ☐Scientific seminar,

Target Levels in each Diagnostic Techniques/ Customer Services

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority [Lab] (ABC)	Comment (Expert)
1	Examination of antibodies through serological screening test of Brucellosis (RBPT)	Can be diagnosed	Needed to be improved	Dec. 2011	Can teach other person	- Have much experience	A	Have improved
2	Rapid test of Salmonella pullorum and Mycoplasma gallicepticum	Can diagnose for infection	Needed to be improved	Dec. 2011	Can teach other person	- Have much experience	A	Needed experience
3	Development of serological diagnosis and confirmation of Brucellosis test (CFT)	Can diagnose for infection	Needed to be improved	Dec. 2011	Can teach other person	- Have much experience	A	Needed experience

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority [Lab] (ABC)	Comment (Expert)
4	Isolation and identification of bacteria and fungi	Can purify and culture the parasites	Not done	Dec. 2011	Can teach other person	- Can collect the parasites after cultivation .	B	Needed experience
5	Summarization of sample information	Can summarize the results	Needed to be improved	Dec. 2011	Can teach other person	- Can talk about the date clearly	A	Needed experience
6	Anthrax and Paratuberculosis ELISA serological test		Needed to be improved	Dec. 2011-2012	Can teach other person	-	A	Needed experience
7	Active surveillance	Can correctly survey in the field	Needed to be improved	Dec. 2011-2012	Can talk about the results	- Can diagnose from the samples	A	Needed experience
8	Passive surveillance	Can correctly diagnose	Needed to be improved	Dec. 2011-2012	Can talk about the results	- Can diagnose from the samples	A	Needed experience
9	Annual bacteriology conference			Dec. 201	Can talk about the results		A	

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority(Lab) (ABC)	Comment (Expert)
10	Isolation and identification of Bacilus anthracis.		Not done	Dec. 2011	Can teach other person	- Can diagnose from the samples	A	
11	Experimentally infection of bacteria using laboratory animals	Can experimentally infect to laboratory	Not done	Dec. 2011-2012	Can teach other person	- Can evaluate the infection of experimentally infected animals	B	
12	Isolation and identification of Salmonella enterica, Brucella abourtus, Campylobacter fetus, Mycobacterium paratuberculosis, Mycobacterium tuberculosis, Leptospira sp. Pasteurella multocida, Mycoplasma gallseptlcum.	Can diagnose	Not done	Dec. 2012	Can teach other person	- Can diagnose from the samples	A	
13	Antibiotic sensitivity test.	Can diagnose	Not done	Dec. 2012	Can teach other person	- Can diagnose from the samples	A	
14	Purification of DNA from isolated bacteria	Can prepare the DNA from bacteria	Not done	Dec.2013	Can teach other person	- Can prepare DNA template from bacteria	A	
15	PCR for detection and identification of Brucellosis and Anthrax		Not done	2013			A	

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority(Lab) (ABC)	Comment (Expert)
16	Submit scientific journal (national and international)	Can published in international journal	Not done	2015	Can teach other person	- Can submit the results to Journal and they are published	A	
17	Anthrax ELISA serological test (antigen production) and the Ascoli test		Not done	2013		- Can diagnose from the samples	A	
18	Inoculation to experimental animals against the disease SE (PMPT)		Not done	2014		- Can diagnose from the samples	A	
19	Bovine Tuberculosis diagnosis		Not done	2014		- Can diagnose from the samples	A	
20								

Project on Capacity Development of Animal Health Laboratory

Target Goal in Epidemiology Laboratory by Year 2015

ANNEX-17

Laboratory	Coordinator	Lab. member	Target setting date	Target date	Evaluator
Epidemiology	Dr Putut	Dr Satrio / Dr Sodek / Mr Firman	Nov. 12, 2011	July, 2015	Sota Kobayashi

Project Goal / Output	☐The quality and quantity of animal disease diagnosis service at DIC Subang are improved. 1. Obtain basic and systematic diagnosis techniques for animal diseases. 2. The capacity of Passive Surveillance is strengthened. 3. The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	☐Capacities, needs and target levels in the diagnostic techniques, ☐Mastering diagnostic techniques, ☐Listing & Utilize Trainer resources, ☐Scientific seminar, ☐Conducting epidemiological surveillance in proper way

Target Levels in each Diagnostic Techniques/ Customer Services

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Nov. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
1	Minimum knowledge and techniques in epidemiology	Participation to the training course	Members have learnt some, but explain by themselves	Dec. 2012	Members explain the basic concepts of epidemiology to the staffs in other sections	A training course is conducted targeting the Epi members. This course is assumed to take 30 hours. Considering members routine work, intensive course is not recommended.	A	
2	Critical reading of related papers and references	Number of papers read by the members	No experiences	Jul. 2015	Members refer previous study/report from the database for their own project by themselves.	Weekly meeting for the introduction of previous work is conducted. One vet out of three introduces one paper or report related to their project.	C	
3	Measurement of disease frequency	Participation to the training course	Members have learnt some, but explain by themselves	Dec. 2012	Members measure the disease frequency using spreadsheet.	A training course is conducted targeting the Epi members. This course is assumed to take 30 hours in combination with subject No4.	A	

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Nov. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
4	Data analyses1 Basic Statistics	Descriptive statistics Statistical estimation Statistical test	Members have learnt some, but explain by themselves	Dec. 2012	Members understand the each topic and analyze their data by themselves,	See No3. Considering members routine work, intensive course is not recommended same as subject No1.	A	
5	Data analyses1 Advanced Statistics	Statistical modeling Multivariable analyses	Members have learnt some, but explain by themselves	Dec. 2014	Members understand the each topic and analyze their data by themselves,	Members will learn this through the analyses of their own data from No 18 under the instruction of the experts.	B	
6	Passive surveillance1 Review of the results of past years	Descriptive analyses	Members have the data, which are to be analyzed.	Dec. 2012	Members know the future needs for the passive surveillance.	Members withdraw the data from the past database and analyze as much as possible then pick up the issues to be modified in the future passive surveillance.	A	
7	Active surveillance1 Review of the results of past years	Descriptive analyses	Members have the data, which are to be analyzed.	Dec. 2012	Members know the future needs for the active surveillance.	Members withdraw the data from the past database and analyze as much as possible then pick up the issues to be modified in the future active surveillance.	A	
8	Passive surveillance2 Planning and implementation of 2011-2014	Number of samples collected and tested with epi information	Members have done but collected assorted epi data.	Jul. 2014	Members produce the database of the disease status and related epi data	Based on No 8, members prepare the new recording sheet for the epi data of each sample and originated farms. DIC Subang asks stakeholders to provide the epi data. with samples collected by other organizations.	A	
9	Active surveillance2 Planning and implementation of 2011-2014	Number of farms visited and samples collected and tested with epi information	Members have done but collected assorted epi data.	Jul. 2014	Members produce the database of the disease status and related epi data	Based on No 7, members prepare the new recording sheet for the epi data of each sample and originated farms and epi data is collected along with sampling	A	

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Nov. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority (Lab) (A,B,C)	Comment (Expert)
10	Passive surveillance2 Evaluation	Newsletter with the result of surveillance results	No experiences other than the summation of test results	Jul. 2015	Members conduct data analyses and feedback the result to the public.	Based on 6 and 8, members analyze the passive surveillance data, interpret the results and feed them back to the public as an article in the newsletter 3-4 times a year.	A	
11	Active surveillance2 Evaluation	Newsletter with the result of surveillance results	No experiences other than the summation of test results	Jul. 2015	Members conduct data analyses and feedback the result to the public.	Based on 7 and 9, members analyze the passive surveillance data, interpret the results and feed them back to the public as an article in the newsletter 3-4 times a year.	A	
12	Brucellosis survey and control trial1 Preparation	Questionnaire B/C type Labs' cooperation	Draft of questionnaire is ready	Jul. 2014	Members collect the epidemiological information to be easily analyzed	Continuous consultation by the experts	B	
13	Brucellosis survey and control trial2 Implementation	Data collection	No experience	Jul. 2015	Members collect the epidemiological information	Continuous consultation by the experts	B	
14	Brucellosis survey and control trial3 Data analyses and interpretation	Reporting in the internal meeting and/or veterinary conference	No experience	Jul. 2015	Members utilize the knowledge from training course	Continuous consultation by the experts	B	
15	Brucellosis survey and control trial4 Publication	Paper in the scientific/commercial journals	No experience	Jul. 2015	Members utilize the knowledge from training course	Continuous consultation by the experts	C	

Project on Capacity Development of Animal Health Laboratory

Target Goal in Parasitology Laboratory by Year 2015 ANNEX-17

Laboratory	Coordinator	Lab. member	Target setting date	Target date	Evaluator
Parasitology	Dr. Sylvia M. Ananta	Dr. Suharuno, Mr. Adi HiDayat	Dec. 17, 2011	July, 2015	Dr. Matsubayashi

Project Goal / Output	☐The quality and quantity of animal disease diagnosis service at DIC Subang are improved. 1. Obtain basic and systematic diagnosis techniques for animal diseases. 2. The capacity of Passive Surveillance is strengthened. 3. The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	☐Capacities, needs and target levels in the diagnostic techniques, ☐Mastering diagnostic techniques, ☐Listing & Utilize Trainer resources, ☐Scientific seminar, ☐

Target Levels in each Diagnostic Techniques/ Customer Services

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority (Lab) (ABC)	Comment (Expert)
1	Correcting samples of feces and blood, and handling	Can prepare for diagnosis	Needed to be improved	Dec. 2011	Can teach other person	- Can sample correctly of feces and blood and store them	A	Have improved
2	Floatation examination of fecal samples and detection of parasites	Can diagnose for infection	Needed to be improved	Dec. 2011	Can teach other person	- Can detect the parasites and identify the species	A	Needed experiment
3	Sediment examination of fecal samples and detection of parasites	Can diagnose for infection	Needed to be improved	Dec. 2011	Can teach other person	- Can detect the parasites and identify the species	A	Needed experiment
4	Purification of detected parasites and culture	Can purify and culture the parasites	Not done	Dec. 2011	Can teach other person	- Can collect the parasites after cultivation	B	Needed experiment
5	Summarization of sample information	Can summarize the results	Needed to be improved	Dec. 2011	Can teach other person	- Can talk about the date clearly	A	Needed experiment
6	Blood test examination and detection of parasites	Can correctly stain and detect the parasites	Needed to be improved	Dec. 2011-2012	Can teach other person	- Can stain the smear and detect the parasites	A	Needed experiment
7	Active surveillance	Can correctly survey the parasites in field	Needed to be improved	Dec. 2011-2012	Can talk about the results	- Can diagnose the parasites from samples	A	Needed experiment
8	Passive surveillance	Can correctly diagnosis the parasites	Needed to be improved	Dec. 2011-2012	Can talk about the results	- Can diagnose the parasites from samples	A	Needed experiment
9	Annual pathology conference			Dec. 2012	Can talk about the results		A	

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
10	Histological examination and observation of tissue infected with parasites	Can correctly diagnosis the tissue infected with parasites	Not done	Dec. 2011-2012	Can teach other person	- Can diagnose the parasites from samples	B	*Eimeria* been finished
11	Experimentally infection of parasites using laboratory animals	Can experimentally infect to laboratory	Not done	Dec. 2011-2012	Can teach other person	- Can evaluate the infection of experimentally infected animals	B	*Cryptosporidium* finished
12	Immunochemical staining for detection of parasites	Can diagnose be immunochemical methods	Not done	Dec. 2011-2012	Can teach other person	- Can evaluate the infection of experimentally infected animals	A	*Cryptosporidium*, *Giardia* finished
13	Sampling and observation of external parasites		Not done	Dec. 2012			A	
14	Purification of DNA from isolated parasites	Can prepare the DNA from parasites	Not done	Dec. 2011-2012	Can teach other person	- Can prepare DNA template from parasites	A	*Cryptosporidium*, *Giardia* finished
15	PCR for detection and identification of parasites		Not done	Dec. 2012			A	Up to cost performance

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
16	Submit scientific journal (national and international)	Can published in international journal	Not done	2015	Can teach other person	- Can submit the results to Journal and they are published	A	Under advance
17								
18								
19								
20								

Project on Capacity Development of Animal Health Laboratory

Target Goal in Pathology Laboratory by Year 2015

ANNEX-17

Laboratory	Coordinator	Lab. member	Target setting date	Target date	Evaluator
Pathology	Dr. Tri	Dr. Rinto, Mr. Eka	April, 2012	July, 2015	Dr. Mikami

Project Goal / Output	☐The quality and quantity of animal disease diagnosis service at DIC Subang are improved. 1. Obtain basic and systematic diagnosis techniques for animal diseases. 2. The capacity of Passive Surveillance is strengthened. 3. The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	☐To be able to make an accurate histopathological diagnosis ☐To acquire techniques and methods necessary for differential diagnosis ☐To give feedback on pathological diagnosis to stakeholders ☐Close collaboration between related laboratories for diagnosis of the diseases

Target Levels in each Diagnostic Techniques/ Customer Services

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (April, 2012)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
1	Improvement in diagnostic knowledge and experience	- Accurate differential diagnosis - To pass the pathology proficiency test	Need to be improved	July, 2015	Being able to make accurate differential diagnosis	- To increase the number of case of passive surveillance - Attendance at annual pathology conference - Invitation of lecturer from other institute or university		AA
2	Improvement of the quality of H&E stained sections	- Appropriate color balance - Intact section without folding, knife mark and air bubble	Need to be improved	March, 2013	Being able to make excellent H&E stained sections	- To get practiced at sectioning by microtome - To keep the automatic stainer in good shape		A
3	Introduction of immunohistochemical staining (IHC) for avian influenza A virus	- Being able to detect Influenza A virus in sections by IHC	Accomplished	March, 2012	- Being able to make diagnosis of field cases infected with influenza virus by IHC	- Preparation of equipment and reagents needed for IHC - Preparation of suitable positive control - To make a study regarding basic conditions for IHC depending on primary antibody		A

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep, 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority[Lab] (ABC)	Comment [Expert]
4	Introduction of immunohistochemical staining for another pathogen	- Being able to detect target pathogen in sections by IHC	N/A	March, 2013	- Being able to make diagnosis of field cases infected with target pathogens by IHC	- Preparation of equipment and reagents needed for IHC - Preparation of suitable positive control - To make a study regarding basic conditions for IHC depending on primary antibody		A
5	Rapid embedding method	To be able to make H&E stained sections in a day	Need to be improved	March, 2013	To be able to perform when it is needed	- Preparation of equipment and reagents needed for this method - To get practiced at the procedure		A
6	Decalcification method for bone specimen	To be able to make H&E stained section of bone	Accomplished	April, 2012	To be able to make bone section for histopathological examination	- Preparation of reagents needed for this method - To get practiced at the procedure		B
7	Utilization of cryostat	To be able to make frozen sections by cryostat	N/A	March, 2014	To be able to make frozen sections by cryostat when it is needed	- Preparation of equipment and reagents needed for making frozen sections - To get practiced at sectioning by cryostat		C
8	Gram staining for Gram-positive and Gram-negative bacteria	To be able to stain Gram-positive and negative bacteria adequately	Accomplished	April, 2012	To be able to distinguish between Gram-positive and negative bacteria	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A
9	Ziehl-Neelsen staining for acid-fast bacteria	To be able to stain acid-fast bacteria adequately	Accomplished	April, 2012	- Being able to make diagnosis of field cases infected with *Mycobacterium* spp by this staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority(Lab) (ABC)	Comment (Exert)
10	Periodic acid-Schiff (PAS) reaction for fungi and protozoa	To be able to stain microorganisms adequately	Accomplished	April, 2012	- Being able to make diagnosis of field cases infected with fungi or protozoa by this staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A
11	Introduction of another special staining for detection of pathogen	To be able to stain target pathogen adequately	Need to be improved	April, 2013	- Being able to make diagnosis of field cases infected with target pathogen by the staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A
12	Masson's trichrome staining for fibrosis	To be able to stain fibrosis adequately	Accomplished	April, 2012	- Being able to make diagnosis of field cases appropriately by this staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A
13	Berlin blue staining for hemosiderin (iron)	To be able to stain hemosiderin adequately	Accomplished	April, 2012	- Being able to make diagnosis of field cases appropriately by this staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		A
14	Introduction of another special staining for accurate identification of lesion	To be able to stain the targets adequately	Need to be improved	April, 2014	- Being able to make diagnosis of field cases appropriately by the staining	- Preparation of reagents needed for this staining - Preparation of suitable positive control - To get practiced at the procedure		B
15	Introduction of molecular pathology methods	Detection of microbial genome from paraffin-embedded tissue	N/A	July, 2015	- Being able to make diagnosis of field cases retrospectively by this method	- Preparation of equipment and reagents needed for this methods - Preparation of suitable positive control - To get practiced at the procedure		C

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority(Lab) (ABC)	Comment (Exert)
16	Submission of case report to domestic or international journal	- Publication of a case report	N/A	July, 2015	- A case report is published in domestic or international journal	- To increase the number of case of passive surveillance - Close examination of field case - Attendance at annual pathology conference and subscription for veterinary journal		B
17								
18	Concrete examples for 11 Giemsa, Warthin-Starry, Grocott							
19	Concrete examples for 14 PTAH, Congo red, Schmori's method, Fontana-Masson's method, Toluidine blue, Klüver-Barrera method							
20								

Project on Capacity Development of Animal Health Laboratory

Target Goal in Veterinary Public Health Laboratory by Year 2015

ANNEX-17

Laboratory	Coordinator	Lab. member	Target setting date	Target date	Evaluator
Public Health	Dr. Aji	Dr. Puttik, Mr. Dudi, Ms.Fenti	April, 2012	July, 2015	Toru Miyamoto

Project Goal / Output	☐The quality and quantity of animal disease diagnosis service at DIC Subang are improved. 1. Obtain basic and systematic diagnosis techniques for animal diseases. 2. The capacity of Passive Surveillance is strengthened. 3. The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	☐To be able to make an accurate estimation for residual chemicals ☐To acquire techniques and methods necessary for analysis ☐To give feedback on results of analysis to stakeholders ☐Close collaboration between related laboratories for analysis of residual chemicals

Target Levels in each Diagnostic Techniques/ Customer Services

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (April 2013)	Expected Time of Achievement	Target Level / Status	Concrete Methods to Achieve Goals	Priority (Lab) (A.B.C)	Comment (expert)
1	Basic analytical techniques	To be able to use these techniques according to a protocol	Accomplished	April 2013	To be able to use these techniques and modify them suitable for the laboratory, if necessary	To understand the principle and the role of basic analytical techniques for sample preparation (homogenization, extraction, filtration, concentration and cleanup) and for reference standard preparation		
2	Operation of HPLC system	To be able to set the analytical condition according to a protocol	Accomplished	April 2013	To be able to set the optimal condition for analysis	To understand the principle of HPLC system To understand the basic operating method for HPLC		
3	Operation of GC system	To be able to set the analytical condition according to a protocol	Accomplished	April 2013	To be able to set the optimal condition for analysis	To understand the principle of GC system To understand the basic operating method for GC		
4	Validation method for analysis	To be able to perform techniques for validation	Accomplished	April 2013	To be able to make validation plan for analysis using the maximum residue limit of each chemicals	To understand the meaning of validation method (Selectivity, Linearity, Limit of Quantitation, Accuracy and Precision) To understand the methods for validation		
5	Analytical method of quinolone antibiotics using HPLC	To be able to validate the analytical method in the laboratory	Accomplished	April 2013	To be able to analyze quinolones according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		
6	Analytical method of organochlorine pesticides using GC	To be able to validate the analytical method in the laboratory	Accomplished	April 2013	To be able to analyze organochlorines according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (April 2013)	Expected Time of Achievement	Target Level / Status	Concrete Methods to Achieve Goals	Priority (Lab) (A.B.C)	Comment (expert)
7	Analytical method of chloramphenicol using HPLC	To be able to validate the analytical method in the laboratory	N/A	Dec 2013	To be able to analyze chloramphenicol according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		
8	Analytical method of tetracycline using HPLC	To be able to validate the analytical method in the laboratory	N/A	Dec 2013	To be able to analyze tetracycline according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		
9	Analytical method of sulfonamides using HPLC	To be able to validate the analytical method in the laboratory	N/A	April 2014	To be able to analyze sulfonamides according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		
10	Analytical method of trenbolone and diethylstilbestrol using HPLC	To be able to validate the analytical method in the laboratory	N/A	Sep 2014	To be able to analyze trenbolone and diethylstilbestrol according to the needs	Preparation of reference standards, reagents and apparatus required for the analysis To perform analysis according to the protocol and confirm whether the protocol is suitable for laboratory		

No	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (April 2013)	Expected Time of Achievement	Target Level / Status	Concrete Methods to Achieve Goals	Priority (Leb) (A.B.C)	Comment (expert)
11	Submission of the data to domestic or international journal	Publication of data of residual chemicals	N/A	Dec 2015	A data of residual chemicals in domestic or international journal	To increase the number of samples To increase the knowledge about residual chemicals To attend the conference or meeting concerning the residual chemicals		

Target Goal in Virology Laboratory by Year 2015

ANNEX-17

Project on Capacity Development
of Animal Health Laboratory

Laboratory	Coordinator	Lab member	Target setting date	Target Date	Evaluator
Virology	Dr Sodirun	Dr Trian, Dr Yulianti, Dr Suryo, Mr Ipaz, Mr Afif, Ms Fitri	Feb.17, 2012	Jul. 2015	Dr Koike etc.

Project Goal /Output	The quality and quantity of animal disease diagnosis service at DIC, Subang, are improved 1.Obatain basic and systematic diagnosis techniques for animal diseases 2. The capacity of Passive Surveillance is strengthened. 3.The capacity to conduct Active Surveillance is strengthened. 4. Conduct the technical support activities for stakeholders.
Laboratory Target Goal	□ Capacities, needs and target levels in the diagnostic techniques, □Mastering diagnostic techniques, □ Listing & Utilize Trainer resources, □Scientific seminar,

Target Levels in each Diagnostic Techniques/ Customer Services

No.	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority [Lab] (A,B,C)	Comment [Expert]
1	AI(H5)/ND isolation through chicken embryonated eggs, and serological identification	Technique is available for isolation and identification of AI(H5) /ND	Need to be improved	Dec. 2011	To isolate the viruses and make exact identification	Much practice to manipulate exact procedure	A	Have improved
2	Diagnosis of rabies: FAT and mouse inoculation test (MIT)	Technique is available for detection of Rabies virus with FAT and MIT	Need to be improved	May 2012	To gain competence of proficient observation with FAT, and inoculation technique	To introduce positive reference virus (challenge virus standard) To make much practice	A	Have improved
3	ELISA serological test: IBR, Rabies, BVD, EBL, H1N1, Hog Cholera.	Technique is available for measurement of ELISA antibodies of IBR, Rabies, BVD, EBL, H1N1, Hog Cholera.	Proficient level	Achieved	To make exact procedure of respective tests	To perform continuously	A	OK

No.	Techniques/ Services	Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority [Lab] (A,B,C)	Comment [Expert]
4	ELISA serological test: PRRS, IBD	Technique is available for measurement of ELISA antibodies of PRRS, IBD	Less experience	Dec. 2012	To make exact procedure of respective tests	Much practice to manipulate exact procedure	A	Need make test on much more samples
5	Development of tissue culture for virus isolation: fundamental preparation; media, sterilization	Technique is available for supporting tissue culture	Less experience	Dec. 2011	To make satisfactory preparation	Much practice to manipulate exact procedure	A	Have progressed
6	Development of tissue culture for virus isolation: primary cell culture: chicken embryo fibroblast (CEF), chicken embryo kidney (CEK), chicken kidney (CK)	Technique is available for tissue culture of primary cells (chicken)	Less experience	Jan. 2012	To make satisfactory preparation	Much practice to manipulate exact procedure	A	Have progressed
7	Development of tissue culture for virus isolation: virus isolation and observation of CPEs etc. on CEF, CEK, CK	Technique is available for isolation and observation on tissue culture	Less experience	June 2012	To make isolation and observation of CPEs etc. of respective viruses (AI, ND, Fowl Pox, IBD, ILT, Rabies)	Much practice	A	Have progressed
8	Development of tissue culture for virus titration	Technique is available for virus titration	Less experience	Sep 2012	To make virus titration of respective viruses (Rabies)	Much practice	A	Have progressed, need much more experience
9	Development of tissue culture technique with established cell lines	Technique is available for virus isolation and observation	Less experience	Jan 2014	To make isolation and observation of CPEs etc. of major viruses	To introduce cell lines of good condition and make much practice	B	Need much experience

10	Development of tissue culture technique for application to immunohistochemical test	Technique is available for immunohistochemical test	Less experience	Mar 2013	To make cell culture infected by target virus	Much practice	A	Have progressed, need much more experience
11	Examination of AI virus dinamiyes with cartography.	Technique is available for cartography test on AI virus isolated	Less experience	June 2012	Cartography test is available on AI virus isolated	Much practice	A	Have progressed
12	Development making of poli and monoclonal antibodies of some kinds of diseases to support diagnosis laboratory	Technique is available for making of poli and monoclonal antibodies of some kinds of diseases	Less experience	Mar 2015 (Policlonal antibody)	Technique is available for making of poli and (monoclonal) antibodies	To introduce a ultra high speed centrifuge or request to other institue for purification of viruses, To make appropriate management of experimental animals (particularly for monoclonal antibody)	B	Need revise the plan of making monoclonal antibody
13	Development of diagnosis in immunoblotting for special disease.	Technique is available for immunoblotting for special disease	Less experience	June 2015	Technique is available for immunoblotting	To introduce appropriate equipment, Much experience	C	Need review about the necessity
14	Development of making conjugate for some kinds disease to support lab testing.	Technique is available for making conjugate	Less experience	June 2015	Technique is available for making conjugate	To procure necessary reagents, To make appropriate specific antiboy	B	Need review about the necessity
15	Development of diagnosis of Neuraminidase type for Avian Influenza virus	Technique is available for diagnosis of Neuroaminidase type	Less experience	June 2016	Technique is available for diagnosis of Neuroaminidase type	To procure the diagnostic kit necessary for test,	B	Need much experience

Project on Capacity Development
of Animal Health Laboratory

Target Goal in Biotechnology Laboratory by Year 2015

Laboratory	Coordinator	Lab member	Target setting date	Target Date	Evaluator
Virology	Dr Sodirun	Dr Sunarno, Mr Lukman	Feb.17, 2012	Jul. 2015	Dr Koike etc.

Project Goal /Output	The quality and quantity of animal disease diagnosis service at DIC, Subang, are improved and systematic diagnosis techniques for animal diseases 2. The capacity of Passive Surveillance is strengthened.	1.Obatain basic 3.The capacity to conduct

Laboratory	□ Capacities, needs and target levels in the diagnostic techniques, □Mastering diagnostic techniques,	□ Listing

Target Levels in each Diagnostic Techniques/ Customer Services

No.	Techniques/ Services	Target Achievement Plan						
		Target Indicator	Current Level (Sep. 2011)	Expected Time of achievement	Target Level / Status	Concrete methods to achieve goals	Priority [Lab] (A,B,C)	Comment [Expert]
1	Diagnosis of swine flu (H1N1)	Technique is available for detection of swine flue	Proficient level	Achieved	To make exact procedure	To perform continuously	A	OK
2	Diagnosis of AI (Matrix, H5 and H7)	Technique is available for detection of AI virus with PCR test	Need to be improved	May 2012	To gain competence for detection of AI virus with PCR test	To introduce positive reference (H7) and primers, SYBR Green test kit	A	Have improved
3	Diagnosis of IBR, Rabies, ParaTb, Hog Cholera, BVD	Technique is available for detection of IBR, Rabies, BVD, Hog Cholera with PCR test	less experience	Nov 2012	To gain competence for detection of Rabies, ParaTb, Hog Cholera and BVD with PCR test	To introduce positive references and primers, SYBR Green test kit	A	Have improved
4	Diagnosis of Brucellosis	Technique is available for detection of Brucellosis with PCR test	less experience	Dec 2014	To gain competence for detection of Brucellosi with PCR test	To introduce the kit	A	not yet implement
5	Diagnosis of Anthraks	Technique is available for detection of Anthrax with PCR test	less experience	May 2015	To gain competence for detection of Anthrax with PCR test	To introduce the kit	A	not yet implement

Suggestion for revisions of Objectively Verifiable Indicators (OVI) on Project Design Matrix (PDM) by the Joint Mid-term Review Team

ANNEX-18

Draft as of May 26, 2013

PDM Narrative Summary	Objectively Verifiable Indicators		Reasons of Change
	Current OVI	**Suggested OVI**	
Overall Goal	2. Number of district where the animal disease control is monitored by DIC Subang amounts to 39 of all 39 districts in West Java area by the year of 2018.	2. Number of district where the animal disease control is monitored by DIC Subang amount to all districts required in West Java region by the year of 2018.	Since the total number of districts changes often, it is recommended to eliminate the numbers.
Output 2	2-1. 18 veterinary staffs in DIC Subang are certified by the Project that he/she is able to make a comprehensive diagnosis judgment based on the results of tests in each laboratory.	2-1. More than one staff in DIC Subang are certified by the Project he/she is able to make a final diagnosis based on the result of tests in each laboratory. 2-2. Each laboratory chief in DIC Subang he/she is able to make an appropriate comments based on the result of tests in each laboratory.	Currently, one veterinary staff is rotated monthly to make comments on the results sheet; "Conclusion/Diagnosis" (Format 5), based on the test results of each laboratory, in which further recommendation is made by the technical manager.
Output 3	3-1. 18 veterinary staffs in DIC Subang reach to 75% comprehension level of conducting surveillance on	3-1. Active surveillances on animal health are conducted annually with a framework (Planning, Implementing,	Currently, almost all staff in DIC Subang are participating in Active Surveillance, therefore

	animal health (Planning, Implementing, Monitoring and Feedback the results to next survey).	Analyzing and feedback) by the staff of DIC Subang.	the staff are required to obtain capability to implement the surveillance with the new framework.
	3-2. 8 veterinary staffs in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers.	3-2. Each laboratory chief in DIC Subang is able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers.	Currently, one veterinary staff is rotated monthly to make comments on the results. Those veterinary staff are eight laboratory chiefs and four other staff.
Output 4	4-2. 8 veterinary staffs in DIC Subang are able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013.	4-2. Each laboratory chief in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013.	Eight veterinary staff means each laboratory chief.

Project Design Matrix (PDM) ANNEX-19

Project Name Project on Capacity Development of Animal Health Laboratory
Target Group Staff of Diseases Investigation Center (DIC) Subang
Project Duration Four (4) years, July 17, 2011 – July 16, 2015
Project Site DIC Subang
Implementing Agency Directorate of Animal Health DGLAHS-MoA and JICA

Date: May 28, 2013
Version 2.0 (DRAFT)

Narrative Summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
Overall Goal Measures for animal disease control in West Java area (Jurisdictional area of DIC Subang) are strengthened.	**1** Number of test samples for animal disease diagnoses at DIC Subang in West Java area increases 10% by the year of 2018 in comparison with the number in 2015. **2** Number of district where the animal disease control is monitored by DIC Subang amounts to all district required in West Java area by the year of 2018. **3** Number of awareness and technical support activity concerning animal health conducted by DIC Subang in West Java area goes up 20% by the year of 2018 in comparison with the number in 2015.	1 Monitoring Report 2 Monitoring Report 3 Monitoring Report, Survey on target groups in West Java area by DIC Subang (Terminal evaluation survey and final survey)	
Project Purpose The quality and quantity of animal disease diagnosis service at DIC Subang are improved.	**1** The number and the kind of animal disease diagnosis at DIC Subang becomes more than 35,000 samples in a year and 16 kind at the end of the Project. **2** The feedbacks of diagnosis (Passive Surveillance) to the customers are returned promptly in prescribed days set by the Project. **3** The DIC Subang staff are ready to conduct Active Surveillance (Planning, Implementing, Monitoring and Feedback the results to next survey) on animal health considering with livestock / poultry industry promotion in the pilot sites more than 2 times/site in a year. **4** 80% of inquired customers (stakeholders such as DINAS staff, Field vets, and Farmers) recognizes improvement of diagnosis services of DIC Subang by the end of the Project.	1 Monitoring Reports 2 Diagnosis records at DIC Subang 3 Observation at the time of mid-term review and terminal evaluation. 4 Monitoring Reports, The results of questionnaire survey on users at the time of mid-term review and terminal evaluation (questionnaire survey to be done by the project monitoring activity 2-5).	The measures and policies concerning of animal disease control will be implemented by the government of Indonesia continuously. Enough budget and personnel are allocated to DIC Subang for sustaining outcomes of the Project.
Outputs **Output 1** The DIC Subang staff obtain basic and systematic diagnosis for animal diseases. **Output 2** The capacity to provide the customer oriented diagnosis services (Passive Surveillance) of DIC Subang staff is strengthened. **Output 3** The capacity to conduct the surveys and the technical support of animal	**1-1** The technical levels acquired on diagnostic tests in each laboratory (8 laboratories) of DIC Subang attain to the target levels set up in the "Project Technical Target Sheet" by June 2013. **2-1**. More than one staff in DIC Subang are certified by the Project he/she is able to make a final diagnosis based on the result of tests in each laboratory. **2-2.**Each laboratory chief in DIC Subang he/she is able to make an appropriate comments based on the result of tests in each laboratory.	1-1 The results of examination by the Project 2-1 Records of comments for diagnosis results 2-2The results of certification by the Project 3-1 Record of surveys 3-2 Records of	The staff of DIC Subang who have been transferred techniques by the Project are not transferred to other office during the Project period.

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disease control (Active Surveillance) in the pilot sites of DIC Subang staff is strengthened. **Output 4** The DIC Subang staff conduct the continuous technical support activities for laboratory workers, field vets and farmers, including information exchange, awareness on animal health improvement in the pilot sites.	**3-1** Active surveillances on animal health are conducted annually with a framework (Planning, Implementing, Analyzing and feedback) by the staff of DIC Subang. **3-2** Each laboratory chief in DIC Subang are able to make recommendations of animal disease control in the pilot sites for the veterinary officers and laboratory workers. **4-1** DIC Subang (Vet. Information section) issues periodical Newsletter of animal health 2 times a year for laboratory workers, field vets and farmers in the three provinces by June 2012. **4-2** Each laboratory chief in DIC Subang is able to make annual plan of technical support activities to the laboratory workers, field vets and farmers in the pilot site by December 2013. **4-3** Achievement rate of annual activity plan (set in 4-2) becomes more than 90% in the pilot site.	Recommendations for animal disease control measures 4-1 Records of issued Newsletter 4-2 The plan and records of awareness and technical support activities 4-3 The plan and records of awareness and technical support activities	
Activities **Output 1** **1-1** The Staff of DIC Subang surveys the current capacities and needs in the diagnostic techniques at DIC Subang. **1-2** Based on the results of the survey, the staff of DIC Subang sets the necessary diagnostic techniques (kind of disease, diagnostic method etc.) and target levels of the techniques for each laboratory. **1-3** The staff of DIC Subang makes the plan of mastering diagnostic techniques for each laboratory in DIC Subang. **1-4** The staff of DIC Subang makes the list of trainer resources, for example, staff of other DICs, IRCVS, NVDAL, Vet Faculty of university, foreign experts etc. **1-5** The staff of DIC Subang learns the planned diagnostic techniques from the resources trainers through training in Indonesia, Japan or third country. **1-6** The staff of DIC Subang receives the diagnostic capability evaluation (including the proficiency tests) by resource trainers about the transferred diagnostic tests. **Output 2** **2-1** The staff of DIC Subang analyzes the current situation of sample flow and examinations at DIC Subang. **2-2**	**Inputs** **Indonesian side** 1. Assignment of counterpart personnel 2. Salary, Travel expense, accommodation cost and daily allowance of counterpart personnel 3. Project office space and communication device etc. 4. Budget for operational cost for the Project implementation (electricity etc.) 5. Procurement of Reagents and consumables. **Japanese side** 1. Dispatch of Experts (1) Long-term Experts : - Chief Advisor / Animal Health Administration - Project Coordinator / Animal Health Information - Veterinary Diagnosis / Epidemiology (assigned in half period of the project) (2) Short-term experts: from Japan or from third country Relevant experts in specific subjects of animal health will be dispatched, when necessity arises, for the smooth implementation of the Project within the framework of the Project. 2. Counterparts training in Japan or in third country 3. Provision of machinery / equipment 4. Budget for operational cost for the Project implementation	Sufficient budget to conduct the necessary diagnosis is secured by Indonesian side.

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The staff of DIC Subang analyzes the current situation of sample submission from the fields. **2-3** The staff of DIC Subang makes the plan of improved sample flow and examination system at DIC Subang. (Measures for the sample senders will be planed in Output 4) **2-4** The staff of DIC Subang conducts the improved diagnostic services. **2-5** The staff of DIC Subang monitors the improved diagnostic services (sample reception, diagnostic flow and customer's comment etc.) and conducts the feed-back to the system. **Output 3** **3-1** The staff of DIC Subang conducts preliminary surveys to select pilot site(s) from livestock / poultry industry promoted areas. **3-2** The staff of DIC Subang specifies the pilot site and some animal diseases for the surveys and control. **3-3** The staff of DIC Subang plans and conducts the surveys on animal health considering the specificity of promoted livestock / poultry sectors in the pilot site through cooperation with B/C type laboratories. **3-4** The staff of DIC Subang analyses the results of surveys and develops the recommendation reports to the authorities for the improvement of animal health situation. **3-5** The staff of DIC Subang organizes and conducts the monitoring of the animal health improvement for the follow-up of recommended activities and the feed-back. **Output 4** **4-1** The DIC Subang issues periodical Newsletters to provide and exchange information on animal health for laboratory workers, field vets and farmers in the 3 provinces of West Java area. **4-2** The staff of DIC Subang examines and conducts necessary measures of information exchange (on site meetings, etc.) for veterinary officers, laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories. **4-3** The staff of DIC Subang makes plans of sustainable activities of awareness and technical supports for improvement of animal health and production, which are necessary for laboratory workers, field vets and farmers in the pilot site. (Utilize other JICA projects outcomes such as a Flip-chart for dairy farmers.) **4-4** The staff of DIC Subang conducts sustainable activities of awareness and technical support for the laboratory workers, field vets and farmers in the pilot site through cooperation with B/C type laboratories.		**Pre-Conditions**

4-5 The staff of DIC Subang organizes and conducts the monitoring and the feed-back of the results to the next actions.		

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Diagnosis conducted by DIC Subang ANNEX-20

No	Disease	Diagnostic methods acquired after grant aid (April 2009)*	Laboratory	2010		2011		2012	
				Number of Sample	Positive cases	Number of Sample	Positive cases	Number of Sample	Positive cases
1	Haemorragic septicemia	x	Bacteriology	x	x	x	x	x	x
2	Anthrax	Isolation/identification	Bacteriology	x	x	45	0	39	0
		ELISA (serology test)	Bacteriology	60	9	425	81	536	313
3	Brucellosis	RBPT	Bacteriology	3,120	35	11,960	42	14,175	225
		CFT	Bacteriology	35	31	73	57	258	233
		Isolation/identification	Bacteriology	x	x	x	x	x	x
4	Salmonella	Rapid Test for Pullorum (serology Test)	Bacteriology	1,515	38	889	33	3,357	499
		Isolation/identification	Bacteriology	x	x	124	3	175	2
5	Rabies	FAT	Virology	25	6	21	1	99	1
		ELISA (serology test)	Virology	362	27	587	251	1,408	776
6	Jembrana Disease	x	Virology	x	x	x	x	x	x
7	BVD (serology test)	ELISA (serology test)	Virology	370	146	788	334	1,400	798
8	IBR (serology test)	ELISA (serology test)	Virology	658	246	750	364	1,756	987
9	Swine Fever (Hog Cholera)	x	Virology	282	75	233	18	773	183
10	HPAI	TET Isolation	Virology	716	15	1,268	201	1,071	139
	HPAI (HA/HI)	HA/HI (serology Test)	Virology	1,710	543	4,596	2,093	5,119	1,717
11	New Castle Disease	TET Isolation	Virology	716	5	807	28	919	52
		HA/HI (serology Test)	Virology	1,153	622	4,231	1,732	5,092	3,007
12	IBD	x	Virology	x	x	x	x	x	x
13	FMD	ELISA (serology test)	Virology	x	x	82	0	454	0
14	EBL	ELISA (serology test)	Virology	430	27	310	19	1,106	48
15	Mycoplasma (CRD)	Rapid Test	Bacteriology	645	23	495	12	3,375	516
16	BSE		Pathology	14	0	11	0	25	0
17	Influenza H1N1	ELISA (serology test)	Virology	282	30	0	0	92	1
		PCR	Biotechnology	287	0	20	0	83	5
18	Blood parasite	Trypanosomiasis	Parasitology	1,927	1	2,446	1	3,008	0
		Anaplasmosis	Parasitology		x		x		0
		Theileriosis	Parasitology		4		20		40
		Babesia	Parasitology		x		1		1
		Plasmodium	Parasitology	70	x		0		0
		Leucocytozoon	Parasitology		x		x		x
		Eperythrozoon	Parasitology		x		x		2
19	Intestinal parasites	Fasciolosis	Parasitology	498	72	889	171	1,396	228
		Paramphistomum	Parasitology		22		52		70
		Moniezia	Parasitology		4		0		49
		Eimeria (Coccidiosis)	Parasitology		20		101		417
		Nematodiasis	Parasitology		109		-		20
		Bunostomum	Parasitology				32		187
		Cooperia	Parasitology				2		9
		Cotyloporon	Parasitology				2		0
		Mecistocirus	Parasitology				6		166
		Oesophagustomum	Parasitology				29		298
		Strongyloides	Parasitology				4		11
		Trichostrongylus	Parasitology				44		190
		Trichuris	Parasitology				7		56
20	Colibacillosis (E.coli)		Bacteriology	x	x	8	6	189	108
21	Para TB (Jhone Disease)	ELISA (serology test)	Bacteriology	x	x	372	11	458	39
22	Food Born Diseases	Total Plate Count	Public Health	x	x	157	75	294	161
		Coliform	Public Health	x	x	157	107	298	138
		Salmonella sp	Public Health	x	x	157	48	296	34
		Formalin Test	Public Health	x	x	115	0	215	0
		Total Number of Samples		14,875	2,110	32,016	5,988	47,466	11,726
		Number of Disease		15		23		23	
		Number of Disagnostic Test		25		43		46	
		Number of sample-set sent to DIC Subang (Times)	Passive (DINAS)	28		400		291	
			Passive (other)	0		97		93	
			Active	42		91		123	
			Proficiency Test	42		6		3	
		Total Number of Received Samples	Passive (DINAS)	-		-		9,148	
			Passive (other)	-		-		1,244	
			Active	-		-		19,555	

Remark : The positive result for serology test is sero positive not positive cases
Sero positive means having positive reaction for the present of antibody in the sample.


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