

**ナイジェリア国
連邦水資源研修所強化プロジェクト
終了時評価報告書**

平成 27 年 4 月
(2015 年)

独立行政法人国際協力機構
地球環境部

環境
JR
15-094

**ナイジェリア国
連邦水資源研修所強化プロジェクト
終了時評価報告書**

平成 27 年 4 月
(2015 年)

**独立行政法人国際協力機構
地球環境部**

目 次

目次	i
プロジェクト位置図	iii
写真	v
略語一覧	vii
終了時評価結果要約表（和文・英文）	ix
<u>本 文</u>	
第1章 終了時評価調査の概要	1
1-1 調査団派遣の経緯と目的	1
1-2 調査団の構成	2
1-3 調査日程	2
1-4 評価項目・評価方法	2
1-5 評価の制約	2
1-6 調査項目と方法	2
1-6-1 主な調査項目	2
1-6-2 評価実施方法	3
第2章 プロジェクトの進捗状況	5
2-1 プロジェクトの投入実績	5
2-1-1 ナイジェリア側の投入実績	5
2-1-2 日本側の投入実績	5
2-2 成果の達成状況	5
2-3 プロジェクト目標の達成見込み	9
2-4 上位目標への貢献度	10
2-5 実施プロセスの検証	11
第3章 評価結果	13
3-1 5項目の評価	13
3-1-1 妥当性	13
3-1-2 有効性	13
3-1-3 効率性	15
3-1-4 インパクト	16
3-1-5 持続性	17
3-2 結論	19
第4章 提言と教訓	21
4-1 提言	21
4-1-1 NWRI/RWSSC に対する提言	21
4-1-2 FMWR/RUWASSA に対する提言	21

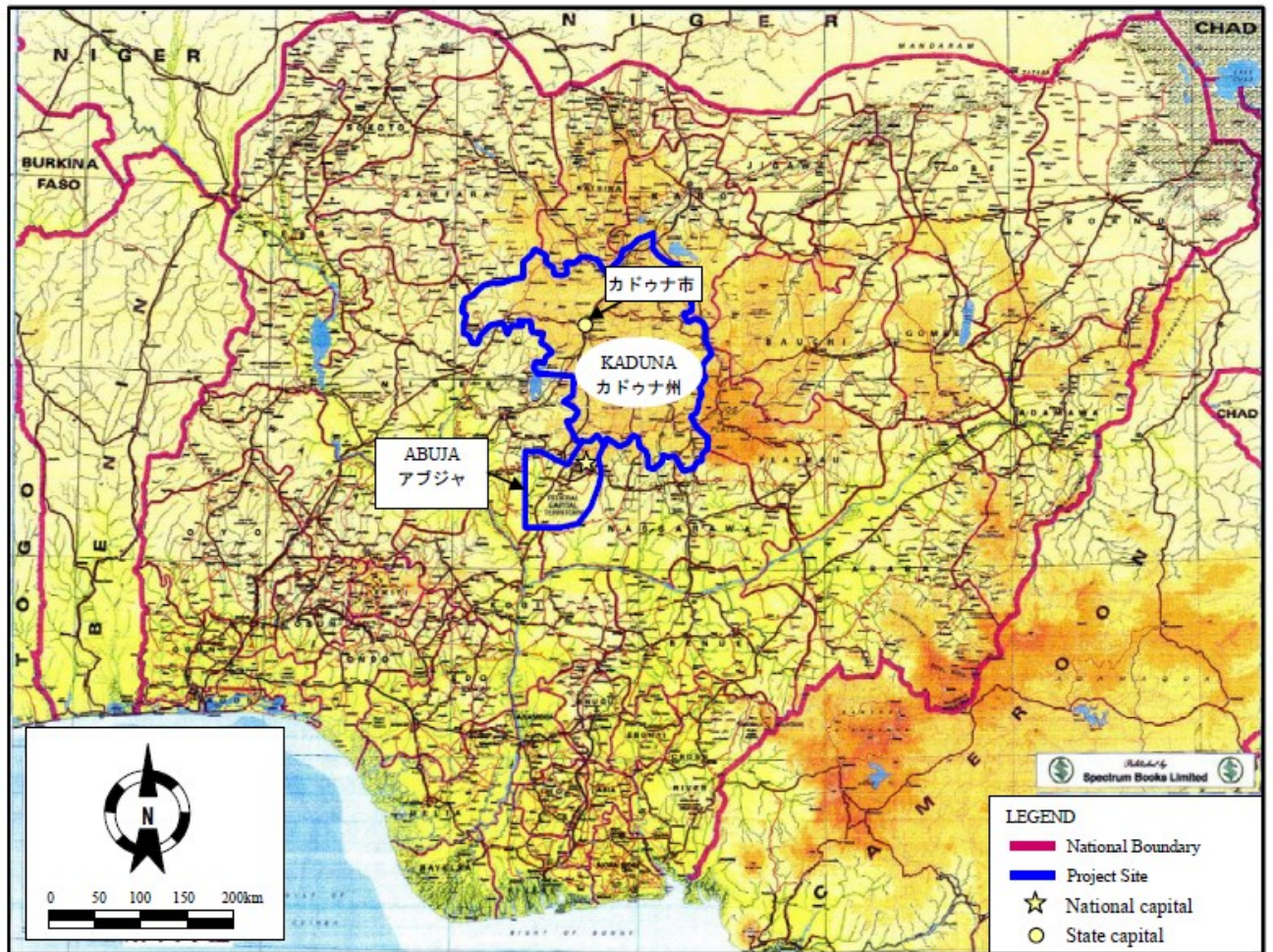
添付資料

添付資料 1：主要面談者一覧

添付資料 2：ミニッツ・合同評価レポート

添付資料 3：評価グリッド

添付資料 4：PDM



プロジェクト対象位置図

調査写真



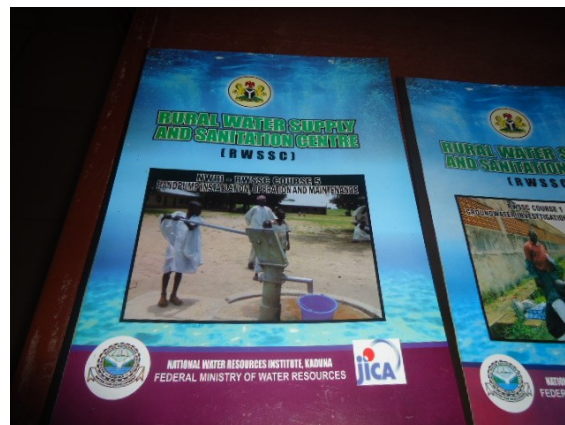
ナイジェリア側評価団による現地視察
(カドゥナ)



NWRI で所有していた既存の機材
(カドゥナ)



本プロジェクトで調達した機材
(カドゥナ)



本プロジェクトで作成を支援した教材
(カドゥナ)



水資源省大臣への表敬
(アブジャ)



JCC におけるミニッツ署名
(アブジャ)

略語一覧

略語	正式名称	日本語表記
C/P	Counterpart	カウンターパート
ESA	External Support Agency	外部支援機関
EWTEC	Ethiopia Water Technology Center	エチオピア水技術センター
FMWR	Federal Ministry of Water Resources	連邦水資源省
JCC	Joint Coordinating 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
LGA	Local Government	地方政府
MDGs	Millennium Development Goals	ミレニアム開発目標
M&E	Monitoring and Evaluation	モニタリング・評価
M/M	Minutes of Meeting	協議議事録
MM	Man Month	人月
NPC	National Planning Commission	国家開発庁
NWRI	National Water Resources Institute	連邦水資源研修所
PDCA	Plan-Do-Check-Act	計画-実行-評価-改善
PDM	Project Design Matrix	プロジェクト・デザイン・マトリックス
PO	Plan of Operation	実施計画
R/D	Record of Discussions	討議議事録
RUWASSA	Rural Water Supply and Sanitation Agency	地方給水衛生公社
RWSS	Rural Water Supply and Sanitation	給水衛生
RWSSC	Rural Water Supply and Sanitation Centre	地方給水・衛生能力開発センター
ToT	Training of Trainers	研修者研修
UNICEF	The United Nations Children's Fund	国連児童基金（ユニセフ）
WASHCOM	Water, Sanitation and Hygiene Committee	水衛生委員会

評価調査結果要約表

1. 案件の概要	
国名：ナイジェリア連邦	案件名：ナイジェリア国連邦水資源研修所強化プロジェクト
分野：水資源	援助形態：技術協力プロジェクト
所轄部署：地球環境部	協力金額（評価時点）：446,675,000 円
協力期間	R/D：2009年10月21日、 2012年10月2日
	2010年3月～2014年11月 (4年8カ月)
	延長：2013年12月～2014年11月
	先方関係機関：地方給水・衛生能力開発センター/ 連邦水資源研修所
	日本側協力機関：なし
	他の関連協力：「地方給水施設維持管理・衛生管理」 「地方給水施設改善計画」
1-1 協力の背景と概要	
<p>ナイジェリア国（以下、ナイジェリア）政府は「国家給水衛生政策」（1999年）及び「地方給水・衛生プログラム(戦略構想)」(2004年)において、2011年までに全ての国民に安全な水を供給すべく各種の取り組みを行っているが、人口増加の影響等により安全な水にアクセスできる人口の割合は49%（1990年）から48%（都市部81%・地方部31%、2004年）と改善が見られず、特に地方部では不衛生な水利用によるギニアウォーム、下痢症やコレラ等の水因性疾患が蔓延している。</p> <p>ナイジェリア連邦水資源省は、地方部における給水状況を改善し、上記目標を達成するためには各州の地方給水衛生公社（Rural Water Supply and Sanitation Agency：RUWASSA）及び各州政府水資源局のキャパシティ・ディベロップメントを図ることが重要であり、そのため各州関係者を対象に技術研修を行う連邦水資源研修所（National Water Resources Institute：NWRI）の研修実施能力を強化することが重要と認識している。これまで、NWRIでは都市給水や Small Town レベルの給水に関連する研修は実施してきたものの、地方給水や衛生分野に係る研修は殆ど行われて来なかったため、NWRI内に「地方給水衛生能力開発センター（Rural Water Supply and Sanitation Centre：RWSSC）」を新設し、当該分野を専門的に取り扱うことにより研修実施能力の強化を図ることとしていた。</p> <p>しかしながら、「NWRI/RWSSCの問題点がどこにあるのか（キャパシティ・アセスメント）」、「どのように研修を実施するのが最適であるか（カリキュラム検討・研修資機材準備）」、「研修講師・監理員のレベルアップをどのように図るか」と言った課題を抱えているため、NWRI/RWSSCの研修準備及び研修実施能力の向上を目的とする技術協力プロジェクトを我が国に要請した。</p> <p>これを受けて2008年9月にJICAは第1次事前調査団、2009年3月に第2次事前調査団をナイジェリアに派遣し、2009年10月21日の討議議事録（Record of Discussions：R/D）署名を経て本プロジェクトが開始された。</p>	
1-2 協力内容	
(1) 上位目標	
地方給水・衛生関係者の能力強化を通じて地方給水サービスが改善される。	

(2) プロジェクト目標

地方給水・衛生キャパシティデベロップメントセンター（RWSSC センター）が効率的に運営される。

(3) 成果

成果 1： 地方給水衛生セクター関係者〔RWSSC/NWRI 及び州水資源省、RUWASSA、地方政府（Local Government：LGA）、水衛生委員会（Water, Sanitation and Hygiene Committee：WASHCOM）等〕のキャパシティ・ギャップが明らかになる。

成果 2： 現場のニーズに適応し、効果的な研修システム（モジュール、教材、機材など）が開発される。

成果 3： 地方給水・衛生分野の研修講師の能力が強化される。

成果 4： 研修が計画-実行-評価-改善（Plan-Do-Check-Act：PDCA）サイクルに基づいて実施される。

成果 5： RWSSC の組織運営及び研修実施マネジメント能力が向上する。

(4) 投入（評価時点）

日本側：総投入額 446,675,000 円

日本人専門家：	9 人 (61.4 M/M) チーフアドバイザー/村落給水/組織・事業運営、水利地質/地下水開発、井戸掘削技術、井戸診断・リハビリ/井戸維持管理、物理探査/解析、機械設備/維持管理、村落開発/衛生啓発/広報活動、調達管理計画
機材：	電気探査機、電磁探査機、掘削機、ボアホールカメラ、検層器、高圧コンプレッサー等：計 1 億 2,150 万円
プロジェクトの運営経費：	約 970 万円

ナイジェリア側：

カウンターパート配置：	12 人
施設・建物：	プロジェクト事務所、発電機、代替インターネットアクセスサービス
管理運営経費：	計 108,458,500 ナイラ

2. 評価調査団の概要

調査者	<日本側>		
	総括	関 徹男	独立行政法人国際協力機構 ナイジェリア事務所長
	協力企画	山崎 正則	独立行政法人国際協力機構 地球環境部 水資源第二チーム
	評価分析	長島 聡	株式会社アイコンズ
	<ナイジェリア側>		
	団員	アデトウンジ・イドウ	副局長、給水局、FMWR
団員	アボドゥラヒーム・ムハマド・ユスフ	局長補佐、国際協力局、NPC	
団員	オルワケミ・オグンノンビ	国際協力局、NPC	

調査期間	2014年10月14日～2014年11月2日	評価種類：終了時評価
3. 評価結果の概要		
3-1 実績の確認		
(1) 成果の達成度		
<p>成果1：地方給水衛生セクター関係者（RWSSC/NWRI及び州水資源省、RUWASSA、LGA、WASHCOM等）のキャパシティ・ギャップが明らかになる。</p> <p>「指標 1-1:キャパシティ・アセスメント報告書がプロジェクト初年度に作られ、終了時まで更新されている」については、ほぼ達成されている。</p> <p>「指標 1-2：ドナーを含むRWSS関係者がRWSS組織のキャパシティ・ギャップの内容を共有している」については、達成される見込みである。</p> <p>キャパシティ・アセスメント調査によりRWSSC（NWRI）と地方給水衛生セクター関係者のキャパシティ・ギャップが明らかになった。キャパシティ・アセスメント報告書は、本プロジェクトの1年次に作成された。ナイジャ州において、州レベルの研修のインパクト調査も行われ、キャパシティ・ギャップの改善状況が評価された。RWSS関係者間で、RWSS組織内のキャパシティ・ギャップの内容を報告書の配布やセミナーの実施を通じて共有された。</p> <p>成果2：現場のニーズに適応し、効果的な研修システム（モジュール、教材、機材など）が開発される。</p> <p>「指標 2-1：研修カリキュラム・モジュールが策定され、それによって改訂または開発されたテキストを含む教材が、2010年9月までに研修に活用される。」については、達成されている。</p> <p>「指標 2-2：研修カリキュラム・モジュールによって、研修に必要な機材が整備され、研修に活用される。」については、達成されている。</p> <p>現場のニーズに適応し、効果的な研修システムが開発された。研修カリキュラム・モジュールによって、改訂・開発されたテキストを含む教材は研修に活用されている。調達された研修機材は、本プロジェクトの3年次開始時より研修に活用されている。</p> <p>成果3：地方給水・衛生分野の研修講師の能力が強化される。</p> <p>「指標 3-1：80%以上の受講者が講師の能力が適切であると評価する。」については、達成されている。</p> <p>「指標 3-2：RWSSCのマネージャーとJICA専門家が、研修者研修（Training of Trainers：ToT）受講者の能力が知識、態度、技能の点で向上したと評価する。」については、達成されている。</p> <p>地方給水・衛生分野の研修講師の能力が強化された。受講生の研修評価表によれば、研修講師の教授法は適切かという質問に対して、2014年の研修ではほとんどの参加者が適切と回答している。RWSSCのマネージャーは、ToT受講者の能力が知識、態度、技能の点で向上したと評価している。</p> <p>成果4：研修がPlan-Do-Check-Act（PDCA）サイクルに基づいて実施される。</p> <p>「指標 4-1：モニタリング・評価（Monitoring and Evaluation：M&E）計画に基づいて、研修モジュール、研修プログラム、教材、機材整備、講師、受講者に対して、M&Eが行われて</p>		

いる。」については、達成されている。

「指標 4-2：2012 年中に M&E の結果を反映し、研修システムの見直しを行い、センター年間活動報告書に記録を残す。」については、達成されている。

研修が PDCA サイクルに基づいて実施された。M&E の結果に基づき、研修システムの改善が行われている。2012 年に M&E の結果を反映し、研修システムの見直しが行われた。

成果 5：RWSSC の組織運営及び研修実施マネジメント能力が向上する。

「指標 5-1：2013 年 3 月までに、ロジ及びアドミニ関連事務処理がマニュアル/ワークプランに基づいて実施される。」については、達成度合いを評価することが難しかった。専門家側と NWRI/RWSSC 側とで達成度合いの認識の差が見られ、RWSSC の運営には改善の余地があるものと見られる。

(2) プロジェクト目標達成の見込み

プロジェクト目標：地方給水・衛生キャパシティ開発センター（RWSSC センター）が効率的に運営される。

「指標 1：研修参加者の研修に対する評価が、プロジェクト開始時よりも高くなっている。」は達成されている。

「指標 2：プロジェクト終了までに、RWSSC での研修に参加した地方給水・衛生関係者の数が 350 人になっている。」は達成されている。

プロジェクト目標の指標は達成されている。研修を実施している 4 コースにおいて、研修評価結果がプロジェクト開始時と比較して高くなっている。また、2014 年 10 月の時点で、405 人が研修に参加している。

3-2 評価結果の要約

(1) 妥当性

以下の理由により、妥当性は高い。

ナイジェリア国政府の政策との整合性、ニーズ、我が国の援助政策との整合性が確認された。

(2) 有効性

以下の理由により、有効性はやや高い。

終了時評価の時点ではプロジェクト目標の指標は達成される見込みである。

一方、治安の悪化により日本人専門家が現地を訪問できず、RWSSC の運営改善に係る技術移転が十分にできなかったことから、運営改善の状況について、日本人専門家と NWRI/RWSSC にはその達成度合いの認識に差がみられ、改善の余地が残されていると考えられる。このように、成果 5 の RWSSC の運営維持に関する指標が一部達成されているのか十分に確認できなかったにも関わらず、プロジェクト目標の指標はすべて達成されているなど、プロジェクト目標の指標の設定には、やや問題が見られた。

また、州の予算負担による研修参加者数が伸び悩んだため、研修生を確保するために無償資金協力の現地国内研修の予算が活用された。尚、2014 年度には州予算によって参加した研修生の数が大きく増加している。

(3) 効率性

以下の理由により、効率性は中程度である。

日本人専門家がカドゥナに訪問できなかったことにより、成果5のRWSSCの運営改善に係る活動を計画通りに実施することができなかった。

治安の問題で本プロジェクトの2年次と3年次の間で1年以上の間が空いてしまい、他のアサインとの関係上、何人かの日本人専門家は本プロジェクトの活動を継続できなくなったこと、機材の調達の時期が大幅に遅れたこと、ナイジェリア側が当初負担すると考えられていた研修費の資金源が不明確であり、プロジェクト開始当初にはナイジェリア側から十分に研修費が負担されなかったことなど、投入には多くの問題が見られた。

(4) インパクト

以下の理由により、インパクトはやや高いと予想される。

上位目標の達成には、RWSSCにおける研修実施のみならずナイジェリア国の予算配分や、RUWASSAによる井戸のモニタリングやリハビリの継続、スペアパーツのサプライチェーンの構築、コミュニティでの運営改善等が必要であり、ナイジェリア政府がこれらの分野への努力を継続すれば、上位目標は達成される見込みである。ただし、現在の上位目標達成への本プロジェクトの貢献度を切り出して確認することは上記の通り外部要因が多いため困難である。

上位目標以外のインパクトとしては、NWRIが導入を検討している長期コースにも本プロジェクトで整備したマニュアル、研修モジュール等が活用可能なこと、既存のコースを通じてナイジェリアのみならずガンビアなど他のアフリカ諸国へ本プロジェクトの効果が普及される可能性が確認されたことなどが挙げられる。

(5) 持続性

以下の理由により、持続性はやや高い。

1) 政策・制度面の持続性：やや高い。

政策についての変更は見られない。研修の参加を促進するために州やドナーなどへの個別訪問等は実施されている。今後は、RWSSCが訪問だけでなく、さらなる研修のニーズ分析に基づいて柔軟に研修コース内容・構成を改定していくことが必要である。

2) 組織面の持続性：やや高い。

主要なC/Pの能力は高い。ただし、年齢が高く、今後の引退も想定されるため、今後の持続性を担保するためには次世代の職員確保が必要である。RWSSCもこの件は認識しており、2012年から新規雇用のための予算の申請は継続している。現在、新規雇用の候補者は決まっているが、終了時評価の時点では予算の承認が下りていないため、雇用には至っていない。そのため、引き続き予算申請の努力を継続することが望まれる。

また、治安の問題により、日本人専門家による十分な技術移転ができなかった。そのため、RWSSCの運営には改善の余地があると見られる。

3) 財政面の持続性：やや高い。

RWSSCの運営予算については、これまでも配分されてきた実績がある。また、2015年もRWSSCの運営のための予算申請はすでに完了している。

一方、研修の費用については、プロジェクト終了後も同様に州が負担するという形が継続する見込みである。州予算については、連邦水資源省（Federal Ministry of Water Resources : FMWR）やNWRI/RWSSC がコントロールすることは困難であるが、地方部給水の需要が高まっていることから、今後は州による研修への予算配分も改善されることをNWRIは見込んでおり、NWRIからも州に対して研修費用の割り当てを奨励することが望ましい。また、今後も研修生の確保に向けてNWRI/RWSSC が広報活動の強化等の自助努力を継続する必要がある。

4) 技術面の持続性：やや高い。

C/P は技術力も高く、研修実施にも習熟しているため、彼らが定年を迎える今後 10 年間程度は、本プロジェクトの成果が持続される見込みは高い。他方、C/P の年齢が高く、今後の引退も想定されるため、技術面での 10 年後以降の持続性を確保するためには次世代の職員への技術移転が必要である。しかしながら、終了時評価の時点では、同人材確保のための予算を申請しているが、未だ承認が下りておらず、技術の引継ぎが確認できていない。

教材等の見直しについては、今後も PDCA サイクルによって改善を継続される見込みである。

現在、短期コースだけではなく、長期コースも併せて実施することが計画されている。本プロジェクトの成果も同長期コースの一部として活用が継続される見込みである。

3-3 効果発現に貢献した要因

(1) 計画内容に関すること

特になし

(2) 実施プロセスに関すること

- 1) NWRI は、以前より国連児童基金（The United Nations Children's Fund : UNICEF）より公衆衛生や村落開発分野の支援を受けており、すでに研修で使用できるマニュアル等が整備されていた。本プロジェクトは、過去の協力の土台を活かして活動を行うことができた。
- 2) 我が国の無償資金協力「カツィナ州・バウチ州地方給水施設維持管理・衛生管理」及び「地方給水改善計画」のため、現地国内研修制度を活用して、該当州から研修生を受け入れることができた。
- 3) C/P となった RWSSC の講師は指導歴も長く、技術については十分な能力を有していた。そのため、教材等を改善するだけで協力の効果が出る体制になっていた。

3-4 問題点及び問題を惹起した要因

(1) 計画内容に関すること

- 1) 各州政府が研修参加者の予算を割り当てることが期待されていたため、プロジェクト開始当初、NWRI/RWSSC には研修参加費を十分に補てんするための予算がなかった。州政府に予算が十分に配分されていなかったこと、研修の重要性が十分に理解されていなかったことなどの理由により、プロジェクトの初期に本プロジェクトで実施する研修に州が研修費を負担した研修員を十分に確保することが困難であった。

(2) 実施プロセスに関すること

- 1) ナイジェリア国における治安の悪化によって、地方出張を行うことができなくなった。そのため、研修を行う場所を、カドゥナ州 RWSSC からアブジャのウスマダムの水公社へと移さざるを得なくなり、RWSSC の運営改善等、いくつかの活動は終了せざるを得なかった。
- 2) 調達手続きの遅れから機材の調達が遅れ、到着するまでの間は機材を必要としない研修のみを実施せざるを得なくなった。
- 3) JICA の現地国内研修制度を活用して研修員を受け入れることで、十分な受け入れ人数を確保できたため、NWRI/RWSSC は JICA の現地国内研修の実施に集中した。その結果、自助努力で研修員を確保するための広報活動の強化が遅れた。

3-5 結論

本プロジェクトでは、治安の悪化など様々な阻害要因があったにもかかわらず、キャパシティ・ギャップが明らかになり（成果 1）、現場のニーズに適応し、効果的な研修システム（モジュール、教材、機材など）が開発され（成果 2）、地方給水・衛生分野の研修講師の能力が強化され（成果 3）、研修が PDCA サイクルに見直された（成果 4）。

プロジェクト目標については、すべての指標が達成され、終了時評価の時点では、NWRI/RWSSC の努力によって州が研修費を負担する研修生の数が本プロジェクトの 4 年次に増加するなど、良い兆候が見られている。また、RWSSC の効率的な運営のために、長期コースの導入や新たな職員の募集などの対策が取られている。

しかしながら、日本人専門家が 2 年次終了以降カドゥナに訪問できず、技術移転が計画通りに行われなかった。ナイジェリア側は RWSSC の運営は改善の傾向にあると考えているが、RWSSC の運営には依然として改善の余地も残されている。NWRI/RWSSC の持続的な運営と地方給水サービスの改善のため、いくつかの対策を「提言と教訓」に記載する。

3-6 提言

終了時合同評価団は、以下の点について提言を行った。

(1) NWRI/RWSSC に対する提言

- 1) ニーズアセスメントの継続実施
- 2) 長期コースの実現
- 3) スキル/知識の若い世代への移転

(2) FMWR/RUWASSAs に対する提言

- 1) 上位目標を達するための多様な努力を継続する必要性
- 2) FMWR から州への、RWSSC における研修のための予算割り当ての奨励

(3) 教訓

本プロジェクトでは、以下の教訓が得られた。

- 1) 現地国内研修費を活用する利点
- 2) プロジェクト開始時における研修費の明確化

- 3) C/P の年齢構成への配慮
- 4) プロジェクト開始時における機材調達の責任分担
- 5) 治安悪化に伴うプロジェクト・デザイン・マトリックス (Project Design Matrix : PDM) の改定
- 6) 現実的な上位目標の設定

Summary of the Results of the Evaluation Survey

1. Outline of the Project	
Country: Federal Republic of Nigeria	Project Title: Project for Enhancing the Function of RWSSC for Capacity Development in NWRI
Issue Sector : Water	Cooperation Scheme: Technical cooperation project
Division in Charge: Global Environment Department	Total Cost : 446,675,000 JPY
Period of Cooperation (R/D): Signature of R/D on 21 st October 2009 and on 2 nd October 2012 March 2010 – November 2014 (Four years eight months)	Partner Country's Implementing Organization : NWRI /RWSSC
	Supporting Organization in Japan : N/A
1-1. Background of the Project	
<p>Nigerian Government was trying to supply safe water to all population by 2011 based on " Nigeria's National Rural Water Supply and Sanitation Policy (2000) " and "Rural Water and Sanitation Programme (2004)". However, the rate to access safe water had not sufficiently improved (49% in 1990 and 48% in 2004) because of effect such as increase of the population, and the water borne diseases such as guinea worm, diarrhea and cholera especially in rural area because of utilization of insanitary water.</p> <p>FMWR in Nigeria realizes that capacity development is important factor for Rural Water Supply and Sanitation Agency (herein after referred to as RUWASSA) and Department of Water Resources in each State, to improve the rural water supply situation and to achieve the objective mentioned above. In addition, it is also important to reinforce the training implementation capacity of NWRI which conducts technical trainings for the relevant staff both at States and national level. So far, NWRI had conducted trainings on the level of urban water supply and water supply in small town, but had not conducted trainings in rural water supply and sanitation. For that reasons, NWRI newly established RWSSC, and tried to reinforce the training implementation capacity specially to deal with the rural water supply. However, NWRI/RWSSC had difficulties in identifying the problems such as;</p> <ol style="list-style-type: none"> 1) What are the challenges in capacity development of NWRI/RWSSC? 2) What type of training is appropriate? 3) How can we examine the curriculum and prepare training materials? 4) How can we improve the capacity of the trainers and coordinators? <p>To solve the problems, Nigerian Government requested for Technical Cooperation from Japanese Government to improve the capacity of NWRI/RWSSC in conducting of the trainings. The Project has been started since March 2010 after signing of R/D on 21st October 2009.</p>	
1-2. Project Overview	
(1) Overall Goal	
Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.	

(2) Project Purpose

Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.

(3) Outputs

- 1) Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.
- 2) Responsive and effective training system (Modules, materials, and facilities, etc) is developed.
- 3) Trainers capacity in RWSS is enhanced.
- 4) Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.
- 5) Management of RWSSC is improved.

(4) Inputs

- 1) Japanese side:
 - Dispatch of Japanese Experts: Nine (9) Japanese experts (61.37MM)
Chief Advisor/Rural Water Supply/Operation and Management, Hydrogeology/Groundwater Development, Well Drilling Technology / Drilling Machine, Well Development/Water Supply Facilities/Well Rehabilitation, Geophysical Survey/Survey Analysis, Mechanical Equipment/Operation and Maintenance, Community Mobilization/Sanitation & Hygiene Promotion, Procurement Management
 - Equipment: Geophysical prospecting equipment, training rig and related equipment, borehole camera, monitoring equipment, pumping test equipment etc. (JY121.5 million)
 - Operational cost: JY9.7million
- 2) Nigerian side:
 - Counterparts: 12 persons in total
 - Facility and utilities provided: Project office, generator, alternative internet service
 - Operational cost: 108,458,5000 NGN

2. Evaluation Team

Members of Evaluation Team	Japanese side		
	Team Leader	Mr. Tetsuo SEKI	Chief Representative, Nigeria Office, JICA
	Cooperation Planning	Mr. Masanori YAMAZAKI	Representative, Global Environment Department, JICA
	Evaluation Analysis	Mr. Satoshi NAGASHIMA	Senior Consultant, ICONS Inc.
	Nigerian side		
	Member	Mr. Adetunji Idowu	Deputy Director, Department of Water Supply, FMWR
	Member	Mr. Abdulraheem Muhammad Yusuf	Assistant Director, International Cooperation Department, NPC
Member	Ms. Oluwakemi Ogunronbi	International Cooperation Department, NPC	
Period of Evaluation	14 th October 2014 – 2 nd November 2014		Type of Evaluation : Terminal evaluation

3. Results of Evaluation**3-1 Verification of Achievement****(1) Level of the achievement of Outputs**

Output 1: Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.

The Evaluation Team evaluated that Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders have been identified based on Capacity Assessment Survey. Capacity Assessment Reports was prepared in first year of the Project. State level impact survey was also conducted at Niger State. The identified capacity gaps were shared through distribution of reports and presentation at seminars to RWSS stakeholders.

Output 2: Responsive and effective training system (Modules, materials, and facilities, etc) is developed.

The Evaluation Team evaluated that effective training system has been developed. Revised and newly developed training materials have been utilized in trainings based on training modules and programme. The equipment procured by the Project, has been utilized since the beginning of the third year of the Project.

Output 3: Trainer's capacity in RWSSC is enhanced.

The Evaluation Team evaluated that trainer's capacity in RWSSC was enhanced. Most of trainees responded that training methods of trainers was appropriate in the trainings of 2014. RWSSC manager evaluated that capacities of each trainer have been improved through ToT.

Output 4: Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.

The Evaluation Team evaluated that trainings were reviewed based on PDCA cycle. Improvement of the training system has been conducted based on the result of M&E (Monitoring and Evaluation). A revised procedure was implemented as scheduled from the 2012 year's training cycle.

Output 5: Management of RWSSC is improved.

The Evaluation Team found that the achievement of Output 5 is unevaluable, since there is a gap that was noticed on the achievement level between Japanese experts' side and Nigerian side and insufficient source of information.

(2) Achievement level of Project Purpose

The Project Purpose has been achieved by the indicators see on PDM. Evaluation by the trainee has become higher than beginning of the Project on four implemented courses. Four hundred and five (405) participants attended the trainings as of October 2014.

3-2 Summary of Evaluation Results

(1) Relevance

Relevance of the Project is high as following reasons.

The project is consistent with the policy in Nigeria, the needs, and Japan's aid policy.

(2) Effectiveness

Effectiveness of the Project is relatively high as following reasons.

The Project Purpose has been achieved by the indicators see on PDM at the time of the terminal evaluation.

However, as activities of Japanese experts at RWSSC were restricted due to the security situation, the activities concerning improvement of the administrative capacities have not been conducted since third year of the Project. Although there is a gap in the recognition of achievement level between the Japanese experts' side and the Nigerian side due to the aforementioned reasons, the Evaluation Team evaluated that administrative capacities should be improved continuously based on the recognition of the Japanese experts. In this way, all indicators of the Project Purpose have been achieved even though achievement of a part of indicators for Output 5 (operation and maintenance of the RWSSC) is unevaluable. Therefore setting of the indicators for the Project Purpose had a little problem.

In addition, the number of participants who are funded training fees by States government was not expanded sufficiently. Although the fund from in-country trainings by Japan was utilized to ensure the number of participants, the number of participants who are funded training fees by States budget tends to be increased in 2014.

(3) Efficiency

Efficiency of the Project is moderate as following reasons.

Concerning Output 5, the activities of Japanese experts had been terminated in second year of the Project due to the security situation and technical transfer has not been conducted as planned.

There were lots of problem on Inputs of the Project. Implementation of the Project was postponed almost one year due to the security situation and some of Japanese experts could not join the Project activities again because of assignments of the other tasks. Timing of procurement of equipment was also significantly delayed. In addition, funding source for training fees which were supposed to bear by Nigerian side was unclear and the budget for training fees by Nigerian was not reserved side in the beginning of the Project.

(4) Impact

Impact of the Project is expected to be relatively high due to following reasons.

Achieving the indicator of the Overall Goal will be affected by allocation of budget by Nigerian side, continuous monitoring and rehabilitation by RUWASSAs, establishment of supply chain of spare parts and improvement of O&M at community level etc. It is likely to achieve the Overall Goal if Nigerian Government continues to make their effort properly.

As of impacts apart from the Overall Goal, modules, the materials and the equipment procured in the Project are expected to be utilized in the long term courses which NWRI is planned to introduce is expected. In addition, effect of supporting NWRI/RWSSC is expected to be expanded to other African countries such as the Gambia through existing training courses.

(5) Sustainability

Sustainability is relatively high as following reasons.

1) Policy and institutional aspects: Relatively high

There is no change on the policy of water supply and sanitation in Nigeria. In order to promote participation, NWRI management team visited each State and distributed brochures etc. Effort for adjusting the contents of training courses is needed to make it more suitable to the real needs of the participants.

2) Organizational aspects: Relatively high

Training Capacity of C/P at RWSSC was high, but most of C/Ps are senior officers and their retirement is expected within over the next 10 years. Therefore employment of new generation is needed to ensure the sustainability.

RWSSC has realized the Problem and has already started to apply the budget. Currently new candidates have already selected but employment has not been done because the budget for the employment has not been admitted by Federal Ministry of Finance yet. Current effort to apply the budget should be continued.

Due to the security situation, technical transfer by Japanese expert was insufficient for improvement of the management especially system of training implementation. Therefore, there is room for improvement on the management of RWSSC.

3) Financial aspects: Relatively high

The operation budget for RWSSC has been allocated. In addition, budget provision for 2015 already in progress and advertisement issues of trainings are already at planning stages.

On the other hand, concerning the training fees, current system that States bear the expense is expected to be continued even after the Project. Although FMWR or NWRI/RWSSC could not control the State's budget, NWRI expects that State budget disbursement for training will be improved due to increasing demand for rural water supply.

4) Technical aspects: Relatively high

Since Training Capacity of C/P at RWSSC was enough, transferred techniques will be sustained by C/Ps within over the next 10 years (before their retirement). On the other hand, most of C/Ps are senior officers and their retirements are expected. Technical transfer to next generation is needed to ensure the sustainability after 10 years. Although RWSSC has already started to apply the budget, the employment has not been admitted yet and plan of technical transfer to next generation to next generation has not been confirmed yet.

Continues revision of the modules and materials by RWSSC is expected to be carried out based on the PDCA cycles. NWRI mentions the possibility to promote introducing long term training courses apart from existing short term courses. Outputs of the Project are expected to be utilize in the new long term courses as part.

3-3 Contributing Factors to Realize the Effects

(1) On the contents of the Plan

N/A

(2) On the implementing process

- 1) NWRI received assistance by UNICEF on the field of public health and rural development since before and some manuals were already developed for utilizing the trainings of the Project.
- 2) The system of in-country trainings of Japan's grant aid Projects was utilized for "the Project for water supply in Bauchi and Katsina States" and "the Project for improvement of rural water supply" and RWSSC could ensure lots of trainees from the target States through the system.
- 3) Since RWSSC trainers (C/Ps) had long experience of trainings and they had certain level of techniques, the effect of cooperation comes out just to improve the teaching materials etc.

3-4 Inhibiting Factors to Cause the Problem

(1) On the contents of the Plan

- 1) Sufficient budgetary allocation for training fees by NWRI/RWSSC has not been ensured in the beginning of the Project because State Governments was expected to make budget provision for the trainings. In addition sufficient number of participants for the trainings from States was not ensured because their budget was not fully funded and importance of the trainings was not well understood.

(2) On the implementing process

- 1) Due to the security situation in Nigeria, Japanese experts could not visit rural area. Therefore location of the trainings had to be changed from RWSSC to Abuja and some activities were forced to terminate such as improvement of the management of RWSSC.
- 2) Due to the delay of procurement procedure, arrival of equipment was delayed and it was forced to conduct only some trainings which are not necessary the equipment until arrival of the equipment in the beginning of the Project.
- 3) Although NWRI/RWSSC could ensure sufficient number of participants by utilizing the fund from the in-country trainings by JICA, NWRI/RWSSC concentrate to implement the courses for in-country trainings. In the consequence of this, reinforcement of public relation activities to ensure trainees by their self-help was delayed.

3-5 Conclusion

In the Project, capacity gap of RWSSC (NWRI) and RWSS stakeholders were identified (Output 1), effective training system (Modules, materials, and facilities, etc) was developed (Output 2), trainer's capacity in RWSSC was enhanced (Output 3) and trainings were reviewed based on PDCA cycle (Output 4) despite lots of inhibiting factors such as security problem.

Concerning the Project Purpose, all indicators have been achieved and good signs are seen at the time of terminal evaluation such as number of participants who were funded training fees by the

States increased in fourth year of the Project by the effort of NWRI/RWSSC and some measures for effective operation of RWSSC have been taken by them such as introduction of long term courses and recruitment of new staff etc. The sustainability of RWSSC can be improved if current efforts continue.

However, there is room for improvement of the management of RWSSC because Japanese experts could not visit Kaduna after the termination of second year of the Project due to the security situation and technical transfer was not conducted as planned. For sustainable management of NWRI/RWSSC and achievement of Overall Goal, the following recommendations are proposed.

3-6 Recommendation

(1) For NWRI/RWSSC

- 1) Implementation of continuous needs assessment
- 2) Realization of long term training courses
- 3) Transfer of skills/knowledge to younger generation

(2) For FMWR and RUWASSA

- 1) Necessity to make efforts on various matters for achieving Overall Goal
- 2) Encouragement of budgetary allocation for trainings in rural water supply at RWSSC from FMWR to State Governments.

3-7 Lessons Learnt

- (1) Advantage of utilization of in-country trainings budget
- (2) Definition of the source of training fees at the beginning of the Project
- (3) Considering the composition of C/Ps age
- (4) Responsibility for procurement of equipment in the beginning of the project
- (5) Revision of the PDM due to the security situation
- (6) Setting realistic Overall Goal

第 1 章 終了時評価調査の概要

1-1 調査団派遣の経緯と目的

ナイジェリア国（以下、ナイジェリア）政府は「国家給水衛生政策」（1999 年）及び「地方給水・衛生プログラム（戦略構想）」（2004 年）において、2011 年までに全ての国民に安全な水を供給すべく各種の取り組みを行っているが、人口増加の影響等により安全な水にアクセスできる人口の割合は 49%（1990 年）から 48%（都市部 81%・地方部 31%、2004 年）と改善が見られず、特に地方部では不衛生な水利用によるギニアウォーム、下痢症やコレラ等の水因性疾患が蔓延している。

ナイジェリア連邦水資源省は、地方部における給水状況を改善し、上記目標を達成するためには各州の地方給水衛生公社（Rural Water Supply and Sanitation Agency : RUWASSA）及び各州政府水資源局のキャパシティ・ディベロップメントを図ることが重要であり、そのため各州関係者を対象に技術研修を行う連邦水資源研修所（National Water Resources Institute : NWRI）の研修実施能力を強化することが重要と認識している。これまで、NWRI では都市給水や Small Town レベルの給水に関連する研修は実施してきたものの、地方給水や衛生分野に係る研修は殆ど行われて来なかったため、NWRI 内に「地方給水衛生能力開発センター（Rural Water Supply and Sanitation Centre : RWSSC）」を新設し、当該分野を専門的に取り扱うことにより研修実施能力の強化を図ることとしていた。

しかしながら、「NWRI/RWSSC の問題点がどこにあるのか（キャパシティ・アセスメント）」、「どのように研修を実施するのが最適であるか（カリキュラム検討・研修資機材準備）」、「研修講師・監理員のレベルアップをどのように図るか」と言った課題を抱えているため、NWRI/RWSSC の研修準備及び研修実施能力の向上を目的とする技術協力プロジェクトを我が国に要請した。

これを受けて 2008 年 9 月に JICA は第 1 次事前調査団、2009 年 3 月に第 2 次事前調査団をナイジェリアに派遣し、2009 年 10 月 21 日の討議議事録（Record of Discussions : R/D）署名を経て本プロジェクトが開始された。

プロジェクトは 1 カ月後に終了することから、以下を目的とする終了時評価調査が実施された。

- (i) プロジェクト・デザイン・マトリックス（Project Design Matrix : PDM）及び活動計画に基づき、プロジェクトの投入実績、活動実績、成果・プロジェクト目標、上位目標について確認する。
- (ii) 実施プロセスを整理すると共に、評価 5 項目（妥当性、有効性、効率性、インパクト及び持続性）の観点から分析を行う。
- (iii) プロジェクト実施上の課題及び問題点を抽出するとともに、今後、プロジェクトが取るべき方策についての提言事項を取りまとめる。
- (iv) 協議結果について、ナイジェリア国側との合意事項として評価レポートに取りまとめる。
- (v) 必要に応じてナイジェリア国側の代表者と評価レポートの内容について、ミニッツにより合意する。

1-2 調査団の構成

終了時評価調査は、本邦からの調査団員とナイジェリア国政府評価メンバーからなる合同チームによって2014年10月15日から10月31日の17日間（現地調査）にわたり実施された。合同チームメンバーの構成は、以下のとおりであった。

<ナイジェリア側メンバー>

	氏名	調査団での担当	所属・職位
1	アデトウンジ・イドウ	メンバー	副局長、給水局、FMWR
2	アボドゥラヒーム・ムハマド・ユスフ	メンバー	局長補佐、国際協力局、NPC
3	オルワケミ・オグンノンビ	メンバー	国際協力局、NPC

<日本側メンバー>

	氏名	担当分野	所属・職位	現地派遣期間
1	関 徹男	総括	独立行政法人国際協力機構 ナイジェリア事務所長	-
2	山崎 正則	協力企画	独立行政法人国際協力機構 地球環境部 水資源第二チーム	2014年10月25日～11月1日
3	長島 聡	評価分析	株式会社アイコンズ	2014年10月15日～10月31日

1-3 調査日程

調査日程は、添付資料2「ミニッツ・合同終了時評価レポート」の1-2 評価日程に示された通りである。

1-4 評価項目・評価方法

本案件の実績の検証、実施プロセスの検証、評価5項目について評価を実施した。各項目の評価設問と評価指標については、評価グリッド（添付資料3）を参照のこと。

1-5 評価の制約

ナイジェリアの治安の問題から、3年次以降日本人専門家が本プロジェクトの対象であるNWRI/RWSSCの所在地カドゥナやその他地域への訪問ができない状態である。そのため、日本人専門家も、NWRI/RWSSCの現在の運営状況について、十分に把握できていなかった。また、日本側評価団員は地方出張が認められなかったことから、研修を受講した側であるRUWASSAでの聞き取り調査を行うことができなかったため、情報源が偏った。

1-6 調査項目と方法

1-6-1 主な調査項目

本終了時評価調査は「新JICA事業評価ガイドライン第1版」（2010年6月改訂）に準拠して実施した。PDMやその他関係資料に基づいて評価設問（調査すべき項目）を検討し、プロジェクトの実績、実施プロセス、評価5項目（妥当性、有効性、効率性、インパクト、持続性）に

関する評価グリッドを作成した。実績、実施プロセス、評価 5 項目の定義は以下の通りである。

(1) 実績

投入、成果、プロジェクト目標、上位目標に関する達成度、もしくは達成予測に関する情報

(2) 実施プロセス

活動の実施状況やプロジェクトの現場で起きている事柄に関する様々な情報

(3) 評価 5 項目

妥当性	プロジェクトの目指している効果（プロジェクト目標や上位目標）が、受益者のニーズに合致しているか、問題や課題の解決策として適切か、相手国と日本側の政策との整合性はあるか、プロジェクトの戦略・アプローチは妥当か、などといった「援助プロジェクトの正当性・必要性」を問う視点
有効性	プロジェクトの実施により、プロジェクトの目標が達成され、本当に受益者もしくは社会への便益がもたらされているのか（あるいは、もたらされるのか）を問う視点
効率性	主にプロジェクトのコストと効果の関係に着目し、投入した資源が有効に活用されているか（あるいは、されるか）を問う視点
インパクト	プロジェクトの実施によってもたらされる、正、負の変化を問う視点（直接、間接の効果、予測した・しなかった効果を含む）
持続性	プロジェクトで生まれた効果が、協力終了後も持続しているか（または出来るか）を問う視点

1-6-2 評価実施方法

評価グリッドに基づいて以下の方法で情報・データを収集し、評価分析を行った。

(1) 文献・既存資料調査

- ・ 業務完了報告書
- ・ 業務進捗報告書
- ・ 専門家提供資料
- ・ その他

(2) サイト調査

ナイジェリア側評価団のメンバーのみで、NWRI/RWSSC の施設を訪問し、現在の活動状況や供与された機材の現状について確認を行った。

(3) 質問票調査または聞き取り調査

日本人長期専門家、連邦水資源省（Federal Ministry of Water Resources : FMWR）、国家開発庁（National Planning Commission : NPC）、NWRI/RWSSC の C/P などを対象に質問票調査または聞き取り調査を実施した。

第2章 プロジェクトの進捗状況

2-1 プロジェクトの投入実績

2-1-1 ナイジェリア側の投入実績

(1) カウンターパート

12人（添付資料2：ミニッツ合同評価レポートを参照のこと）

(2) 施設・建物

プロジェクト事務所、発電機、代替インターネットアクセスサービス

(3) 管理運営経費

計 108,458,500 ナイラ（添付資料2：ミニッツ合同評価レポートを参照のこと）

2-1-2 日本側の投入実績

(1) 日本人専門家派遣

計9人の専門家が派遣された。総MMは61.37MMであった。（チーフアドバイザー/村落給水/組織・事業運営、水利地質/地下水開発、井戸掘削技術、井戸診断・リハビリ/井戸維持管理、物理探査/解析、機械設備/維持管理、村落開発/衛生啓発/広報活動、調達管理計画。詳細は添付資料2：ミニッツ合同評価レポートを参照のこと）。

(2) 機材

電気探査機、電磁探査機、掘削機、ボアホールカメラ、検層器、高圧コンプレッサーなど、計1億2,150万円の機材が供与された（詳細は添付資料2：ミニッツ合同評価レポート Annex4を参照のこと）。

(3) プロジェクトの運営経費

プロジェクトの運営経費（2010～2014年）は約970万円が投入された（詳細は添付資料2：ミニッツ合同評価レポートを参照のこと）。

2-2 成果の達成状況

成果1： 地方給水衛生セクター関係者〔RWSSC/NWRI 及び州水資源省、RUWASSA、地方政府（Local Government：LGA）、水衛生委員会（Water, Sanitation and Hygiene Committee：WASHCOM）等〕のキャパシティ・ギャップが明らかになる。

概要： キャパシティ・アセスメント調査により RWSSC（NWRI）と地方給水衛生セクター関係者のキャパシティ・ギャップが明らかになった。キャパシティ・アセスメント報告書は、本プロジェクトの1年次に作成された。4年次にはナイジャ州において、州レベルの研修のインパクト調査も行われ、キャパシティ・ギャップの改善状況が評価された。RWSS関係者で、RWSS組織のキャパシティ・ギャップの内容を報告書の配布やセミナーの実施を通じて共有された。

- (1) 指標 1-1: キャパシティ・アセスメント報告書がプロジェクト初年度に作られ、終了時まで更新されている。

指標 1-1 については、ほぼ達成されている。

キャパシティ・アセスメント報告書は、本プロジェクトの1年次に作成された。4年次に調査対象州の5州（ヨベ、カツィナ、バウチ、ナイジャ、オンド州）にて改定する活動を行う予定であったが、ナイジェリアにおける治安の悪化により、改訂のための調査ができない状態である。そのため、治安が安定しているナイジャ州において、州レベルの研修のインパクト調査を行い、キャパシティ・ギャップの改善状況を評価した。

- (2) 指標 1-2: ドナーを含む RWSS 関係者が RWSS 組織のキャパシティ・ギャップの内容を共有している。

指標 1-2 については、達成される見込みである。

- 1) 報告書は 100 部作成された。本プロジェクトの2年次に北部州（ソコト、カノなど）にプロジェクトチームが調査へ行った際、直接 RUWASSA へ配布した。また、研修参加者経由で州へ手渡した。50 部は研修所から各州へ配布された。
- 2) 本プロジェクトの1年次においてセミナーを開催し、キャパシティ・ギャップの内容を JICA 無償資金協力実施対象州（カツィナ州、バウチ州、ヨベ州など）、RUWASSA、連邦水資源省、州水資源省、NWRI、国連児童基金（The United Nations Children's Fund: UNICEF）等を共有した（総勢 46 人）。4年次においても 2014 年 1 月に同様のセミナーが実施され、キャパシティ・ギャップの改善状況が共有された。
- 3) 本プロジェクトの4年次（2014 年 11 月の初め）に、ナイジャでのインパクト調査の結果とプロジェクトの成果に関するセミナーを実施予定である。参加者は 15 州程度が想定されている（JICA 無償資金協力実施対象 10 州＋数州）。

成果 2: 現場のニーズに適応し、効果的な研修システム（モジュール、教材、機材など）が開発される。

概要: 現場のニーズに適応し、効果的な研修システムが開発された。研修カリキュラム・モジュールに従って、改訂・開発されたテキストを含む教材は研修に活用されている。調達された研修機材は、本プロジェクトの3年次開始時より研修に活用されている。

- (1) 指標 2-1: 研修カリキュラム・モジュールが策定され、それに従って改訂または開発されたテキストを含む教材が、2010 年 9 月までに研修に活用される。

指標 2-1 については、達成されている。

研修カリキュラム・モジュールに従って、改訂・開発されたテキストを含む教材は、研修に活用されている。本プロジェクトの2年次、3年次の業務完了報告書に記されているように、モニタリング・評価（Monitoring and Evaluation: M&E）結果から、講義の時間配分

を変える、マニュアルを改善する、実習を多くするなど研修内容の改善を行ってきている。

(2) 指標 2-2 : 研修カリキュラム・モジュールに従って、研修に必要な機材が整備され、研修に活用される。

指標 2-2 については、達成されている。

研修機材の調達は 2011 年 9 月を予定していたが、予定より 18 カ月遅れ、2013 年 2 月に到着した。本プロジェクトの 3 年次開始時より研修に活用されている。

成果 3 : 地方給水・衛生分野の研修講師の能力が強化される。

概要 : 地方給水・衛生分野の研修講師の能力が強化された。受講生の研修評価表によれば、研修講師の教授法は適切かという質問に対して、2014 年の研修では 95%を越える参加者が適切と回答している。RWSSC のマネージャーは、研修者研修 (Training of Trainers : ToT) 受講者の能力が知識、態度、技能の点で向上したと評価している。

(1) 指標 3-1 : 80%以上の受講者が講師の能力が適切であると評価する。

指標 3-1 については、達成されている。

受講生の研修評価表によれば、研修講師の教授法は適切かという質問に対して、2014 年の研修では 96.6%の参加者が適切と回答している。また、研修講師は十分な技術レベルであったかという質問に対しても、2014 年の研修では 98.3%が適切と回答している。

表 1 : 「教授法は適切か」という質問に対する回答

	1	2	3	4	5	4 以上で回答した割合(%)
2011 年	-	-	1	33	58	98.9
2012 年	-	-	-	5	17	100.0
2013 年	-	-	1	34	62	99.0
2014 年	1	-	1	5	52	96.6

1:とても低い、2:低い、3:中程度、4:高い、5:とても高い
出所:プロジェクト提供資料

表 2 : 「十分な技術レベルであったか」という質問に対する回答

	1	2	3	4	5	4 以上で回答した割合(%)
2011 年	-	-	5	24	61	94.4
2012 年	-	-	-	6	19	100.0
2013 年	-	-	4	30	62	95.8
2014 年	-	-	1	9	49	98.3

1:とても低い、2:低い、3:中程度、4:高い、5:とても高い
出所:プロジェクト提供資料

- (2) 指標 3-2 : RWSSC のマネージャーと JICA 専門家が、ToT 受講者の能力が知識、態度、技能の点で向上したと評価する。

指標 3-2 については、達成されている。

RWSSC のマネージャーが、ToT の実施後に講師と協議をして向上した点を把握し、業務完了報告書にまとめている。また、RWSSC マネージャーに対する質問票調査によれば、各講師の ToT を通じて能力が改善されたと回答している。

表 3 : RWSSC マネージャーによる ToT 受講者の能力評価

	知識	態度	技能
地下水探査技術の C/P	5	5	5
井戸建設の C/P	5	5	5
井戸掘削の C/P	5	5	5
井戸掘削機械維持管理の C/P	5	5	5

5: 改善された、4: やや改善された、3: 変化なし、2: やや悪化した、1: 悪化した
出所: 質問票調査

成果 4 : 研修が計画-実行-評価-改善 (Plan-Do-Check-Act : PDCA) サイクルに基づいて実施される。

概要 : 研修が PDCA サイクルに基づいて実施された。M&E の結果に基づき、研修システムの改善が行われている。2012 年中に M&E の結果を反映し、研修システムの見直しが行われた。

- (1) 指標 4-1 : モニタリング・評価 (M&E) 計画に基づいて、研修モジュール、研修プログラム、教材、機材整備、講師、受講者に対して、M&E が行われている。

指標 4-1 については、達成されている。

研修については、M&E が行われている。2 年次業務完了報告書 4.1.4 および 3 年次業務完了報告書等の 3.1.3 に記載されているように、M&E の結果に基づき、研修システムの改善が行われている。

- (2) 指標 4-2 : 2012 年中に M&E の結果を反映し、研修システムの見直しを行い、センター年間活動報告書に記録を残す。¹

指標 4-2 については、達成されている。

2012 年に M&E の結果を反映し、追加資料を作成する、講義の時間配分を変える、テキストを改良する、グループ分けを工夫するなどの研修システムの見直しを行った。

¹ 本指標については、英文版と和文版で記述が異なっている。英文版には、「センター年間活動報告書に記録を残す。」という記述がないため、本項は英文版の記述に従った。

成果 5： RWSSC の組織運営及び研修実施マネジメント能力が向上する。

概要： 成果 5 については、達成度合いを評価することが難しかった。日本人専門家側と NWRI/RWSSC 側とで達成度合いの認識の差が見られ、RWSSC の運営には改善の余地があるものと見られる。

(1) 指標 5-1： 2013 年 3 月までに、ロジ及びアドミニ関連事務処理がマニュアル/ワークプランに基づいて実施される。

指標 5-1 は達成のレベルを確認することが難しい。

ワークマニュアル/ワークプランは整備されている。治安悪化のため、研修場所を本プロジェクトの 3 年次よりアブジャの水公社施設へ移動したため、RWSSC での活動は実施されていない。上記の理由により、日本人専門家は成果 5 の NWRI/RWSSC の運営能力向上に関する活動を十分に行うことができなかったため、本指標はまだ達成されていないと考えている。また、カドゥナへの渡航再開の見通しも立っておらず、残りのプロジェクト期間も僅かであることから、本プロジェクト期間中にカドゥナの RWSSC において NWRI/RWSSC の運営能力向上に関する活動を行うことは困難と判断される。他方、NWRI/RWSSC に対する聞き取り調査によれば、運営に改善の傾向が見られることが言及された。このように、日本人専門家側と NWRI/RWSSC 側とで達成度合いの認識の差が見られ、事務処理記録等、現状を確認するために活用できる情報が限られていたため、RWSSC の運営には改善の余地があるものと見られる。

(2) 指標 5-2： 10 以上の州が RWSSC の改定された研修内容や開催時期について知らされている。

指標 5-2 は達成されている。

毎年次研修計画を策定し、NWRI/RWSSC の研修開催時期をレターの送付や新聞に公示するなどの方法で 36 州の RUWASSA や関係機関へ周知されている。

2-3 プロジェクト目標の達成見込み

プロジェクト目標： 地方給水・衛生キャパシティ開発センター（RWSSC）が効率的に運営される。

概要： プロジェクト目標の指標は達成されている。研修を実施している 4 コースにおいて、研修評価結果がプロジェクト開始時と比較して高くなっている。2014 年 10 月の時点で、405 人が研修に参加している。

(1) 指標 1： 研修参加者の研修に対する評価が、プロジェクト開始時よりも高くなっている。

指標 1 は達成されている。

研修を実施している 4 コースにおいて、研修評価結果がプロジェクト開始時と比較して

高くなっている。

表 4：各年次の研修参加者の研修に対する評価の平均

コース名	2011年	2012年	2013年	2014年
地下水探査技術	3.62	-	3.89	-
井戸建設	4.40	4.08	4.25	4.44
井戸掘削	-	-	4.49	4.67
井戸掘削機械維持管理	-	-	4.21	4.55

出所：プロジェクト提供資料を基に評価団まとめ（5点満点）

- (2) 指標 2： プロジェクト終了までに、RWSSC での研修に参加した地方給水・衛生関係者の数が 350 人になっている。

指標 2 は達成されている。

治安の悪化により、コース数は 4 つに抑えられ、指標も 400 人から 350 人へと変更された。しかしながら、2014 年 10 月の時点で、405 人が研修に参加している。

表 5：各年の研修参加者

コース名	2011年	2012年	2013年	2014年	合計
地下水探査技術	9	-	38	26	73
井戸建設	14	25	20	45	104
井戸掘削			20	32	52
井戸掘削機械維持管理	-	-	20	19	39
ハンドポンプ設置、維持管理	44	-	-	-	44
井戸改修・メンテナンス	33	-	-	-	33
公衆衛生	30	-	-	-	30
住民啓発	30	-	-	-	30
合計	160	25	98	122	405

出所：プロジェクト提供資料

2-4 上位目標への貢献度

上位目標： 地方給水・衛生関係者の能力強化を通じて地方給水サービスが改善される。

概要： 上位目標は将来的に達成されることが期待される。無償資金協力を実施した州において、終了時評価の時点で給水施設の稼働率は 100% であり、その稼働率が高いレベルで継続することが期待されている。

- (1) 指標 1： 無償資金協力を実施した州において、その州技術者が RWSSC での研修に参加する前と比べて、地方給水施設の稼働率が上がる。

指標 1 は達成されることが期待されている。

無償資金協力を供与されたカツィナ州、バウチ州、ヨベ州では、2011 年の無償資金供与後の機材を受け取った後、新たな井戸を建設した（カツィナで 92、バウチで 76、ヨベで 86）。すべて（100%）のハンドポンプは終了時評価の時点でも稼働している。UNICEF によって

実施された「国家ハンドポンプ稼働率調査」によれば、全国のハンドポンプ稼働率は 56.2% となっており、100%の稼働は顕著な結果であると言える。給水率の稼働率を高い水準に維持するためには、RWSSC において研修が実施されたり、WASHCOM 設立のための現地国内研修が JICA によって実施されたりするなどの支援がなされている。本給水施設の稼働率は、今後も継続することが期待されている。プロジェクト完了から 3 年～5 年後の事後評価の時点で、対象州で無償資金協力で供与された新規機材を使って建設された対象施設の稼働率が 80%以上²を確保していることが期待される。

(2) 追加指標：RWSSC の研修生の累積数が、2017 年の時点で 800 人以上となる。

本プロジェクト終了後も RWSSC が研修実施を継続し、各コースの研修修了生を輩出し続けることが、結果として地方給水サービスの改善につながる。そのため、各コースで最低年間 15 人が研修を受講し、累積数で 800 人以上（15 人×9 コース×3 年間で 405 人+すでに終了した研修生 405 人）に研修を行うよう、定期的に研修受講者数を RWSSC に確認し、必要に応じて研修実施を促す必要がある。

2-5 実施プロセスの検証

実施プロセスにおいては、大きな問題は見られていない。

(1) プロジェクトマネジメント体制

ToT 研修のほか、研修プログラム、ガイドライン、教材を共同で作成することを通じて、技術移転が行われた。講師は経験豊富な者が多く、教授法については問題が多くはみられなかったため、新規に供与する機材の使用手法等の新規技術など不得意分野に絞って技術移転が行われた。

本プロジェクトの 2 年次までは、定期的に会議が開催されていた。研修強化をする上で弱い分野や項目等をお互いに取り上げて話し合い、その意見を研修教材やテキストの改善に役立てることができた。しかし本プロジェクトの 3 年次から治安の問題でカドゥナに日本人専門家が訪問することができなくなったため、この話し合いの機会を持つことは難しくなった。

各合同調整委員会（Joint Coordinating Committee : JCC）では、ナイジェリア国側及び日本側から意思決定者が参加し、プロジェクトの実施運営にかかる重要な課題が提起され、その解決策が議論されていた。そのため、これらの会議は十分に機能していたと言える。

本プロジェクトの 2 年次までは、カドゥナに訪問することができたため、ナイジェリア側、日本側のプロジェクト関係者間のコミュニケーションは円滑であった。しかし、本プロジェクトの 3 年次以降は治安の問題から、RWSSC を訪問することができず、十分なコミュニケーションが取れたとは言えない。日本人専門家不在の際には E メールでコミュニケーションを取っていた。ナイジェリア側の C/P は十分なコミュニケーションを取れたと考えているが、日本人専門家側は、場合によって十分なコミュニケーションは取れなかったと考

² この 80%という数字については、合同評価団員であった FMWR の給水局副局長等との話し合いの末、合意されたものである。

えている。

(2) 実施機関のオーナーシップ

ナイジェリア側 C/P は、日本人専門家のナイジェリア滞在中は、十分な貢献をしていたと考えている。本プロジェクトでは、RWSSC の運営予算は計画通りに支出された。

(3) 予期できなかった実施プロセスの問題

治安悪化により、2012 年以降 RWSSC（カドゥナ）への移動・滞在ができなかった。

RWSSC 研修は定期的（年 2 回）に開催され、独自に研修を進めている。しかし、広報活動が十分に実施されておらず、予定の募集人員よりも不足したり、参加人員が集まらず研修を中止したり、といった場合があった。

第3章 評価結果

3-1 5項目の評価

3-1-1 妥当性

以下の理由により、妥当性は高い。

(1) ナイジェリア国政府の政策との整合性

2009年に作成された「ナイジェリアビジョン 20:2020」の優先課題の一つとして、飲料水及び基礎衛生に継続的にアクセスできることが掲げられており、この中で、地方給水の維持管理のプログラムやマニュアルの開発などが謳われている。

(2) ニーズ

ナイジェリアでは、地方部の水開発のポテンシャルは高いが、民間業者が十分に育成されていないこと、アクセスの悪い地域や掘削が難しい地域の仕事は受注しないなどの問題を抱えている。そのため、引き続き RUWASSA が給水分野に果たす役割は大きく、RUWASSA の職員の研修を行うことを目的とした、RWSSC を支援するニーズは高い。

(3) 我が国の援助政策との整合性

本プロジェクトは、2012年に作成された対ナイジェリア事業展開計画の中の、援助重点分野「人間の安全保障」の実現とミレニアム開発目標 (Millennium Development Goals : MDGs) の達成、開発課題「地方給水・衛生」の「地方給水・衛生プログラム」の中に位置づけられている。

(4) プロジェクトのアプローチ

本プロジェクトのアプローチは適切である。地方部の水資源開発や給水・衛生は主に RUWASSA が担っているが、地下水開発に係る技術は十分とは言えない。RWSSC は、地方給水分野の RUWASSA の職員の研修を行う唯一の施設であり、地方部の給水・衛生分野を支援するために、RWSSC の強化を行うという本プロジェクトアプローチは妥当である。

(5) JICA の技術協力プロジェクトの経験の活用

9 コースの研修コースの構成は、JICA がエチオピアで実施している、エチオピア水技術センター (Ethiopia Water Technology Center : EWTEC) のプロジェクトを参考にして行われた。

3-1-2 有効性

以下の理由により、有効性はやや高い。

(1) プロジェクト目標の達成見込み

終了時評価の時点ではプロジェクト目標の指標は達成されている。また、2014年度には州予算によって参加した研修生の数が大きく増加している。これは、我が国の現地国内研修費を活用した研修実施が2013年度末で終了したため、NWRI/RWSSC の研修の広報活動がよ

り強化されたことによるものである。また、プロジェクト実施による NWRI/RWSSC の研修の認知度の向上により、研修に対する州の予算の優先度付けが改善されたことも一因であると考えられる。

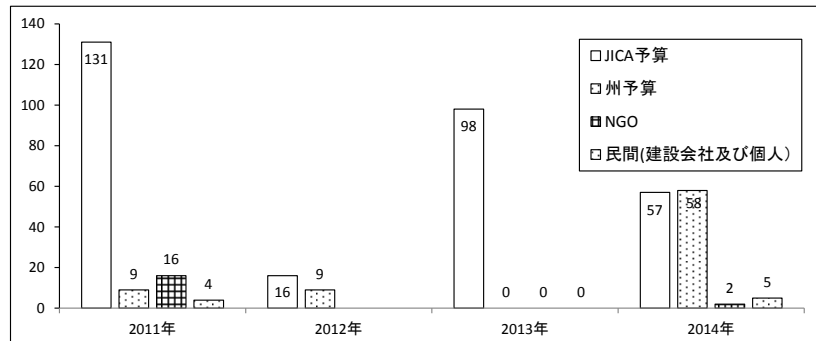


図 1: 各年度における RWSSC 研修費の研修費負担先

しかしながら、改善の余地も見られている。

本プロジェクトの活動によるプログラムや教材の改善や、ToT 研修によって RWSSC の講師の能力向上は確認されている。しかし、治安の問題で RWSSC の所在地であるカドゥナ州において日本人専門家は業務を行うことを認められておらず、研修はアブジャ近郊のウスマダムに隣接する連邦首都区水道公社の施設において実施されていた。そのため、活動場所の移転に伴い、事務能力向上のための活動は実施計画（Plan of Operation : PO）には含まれておらず、3 年次以降実施されなかった。このため、RWSSC の運営には改善の余地があると考えられる。このように、成果 5 の RWSSC の運営維持に関する指標が一部達成されているのか十分に確認できなかったにも関わらず、プロジェクト指標の指標はすべて達成されているなど、本プロジェクトのプロジェクト目標の指標の設定には、やや問題が見られた。

また、プロジェクト目標である RWSSC の効率性の改善の指標として、「プロジェクト終了までに、RWSSC での研修に参加した地方給水・衛生関係者の数が 350 人になっている。」が設定されており、同指標は終了時評価の時点で達成されている。しかし、「(2) 貢献要因と阻害要因」の項で述べている様々な阻害要因があり、75%の研修参加者に対する研修は、日本の現地国内研修費を活用して行われた。尚、2014 年度には州予算によって参加した研修生の数が大きく増加している。

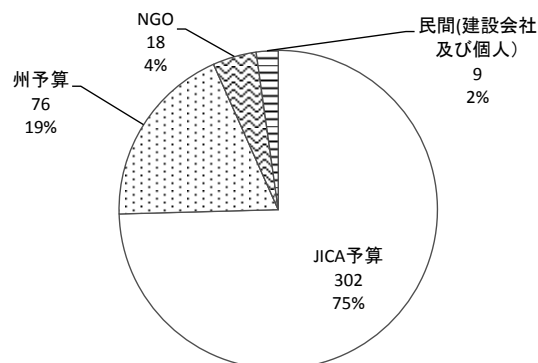


図 2: RWSSC 研修参加者の研修費負担先

(2) プロジェクト目標達成の阻害要因、貢献要因

本プロジェクトでは、以下のプロジェクト目標達成の阻害要因、貢献要因があった。

1) 貢献要因

- a) NWRI は、以前より UNICEF より公衆衛生や村落開発分野の支援を受けており、すでに研修で使用できるマニュアル等が整備されていた。本プロジェクトは、過去の協力の土台を活かして活動を行うことができた。
- b) 我が国の無償資金協力「カツィナ州・バウチ州地方給水施設維持管理・衛生管理」及び「地方給水改善計画」のため、現地国内研修制度を活用して、該当州から研修生を受け入れることができた。
- c) C/P となった RWSSC の講師は指導歴も長く、技術については十分な能力を有していた。そのため、教材等を改善するだけで協力の効果が出る体制になっていた。

2) 阻害要因

- a) ナイジェリア国における治安の悪化によって、地方出張を行うことができなくなった。そのため、研修を行う場所を、カドゥナ州 RWSSC からアブジャ近郊のウスマダムに隣接する連邦首都区水道公社の施設へと移転せざるを得なくなり、RWSSC の運営改善等、いくつかの活動は終了せざるを得なかった。
- b) 調達手続きの遅れから機材の調達が遅れ、到着するまでの間は機材を必要としない研修のみを実施せざるを得なくなった。
- c) プロジェクト開始当初、NWRI/RWSSC には研修参加費を十分に補てんするための予算がなかった。そのため、各州政府が研修参加者の予算を割り当てることが期待されていた。しかし、州政府に予算が十分に配分されていなかったこと、研修の重要性が十分に理解されていなかったことなどの理由により、プロジェクトの初期に本プロジェクトで実施する研修に州が研修費を負担した研修員を十分に確保することが困難であった。
- d) JICA の現地国内研修制度を活用して研修員を受け入れることで、十分な受け入れ人数を確保できたため、NWRI/RWSSC は JICA の現地国内研修の実施に集中した。その結果、自助努力で研修員を確保するための広報活動の強化が遅れた。

3-1-3 効率性

以下の理由により効率性は中程度である。

(1) 成果の達成度合い

成果 1~4 については、十分な活動が行われ、指標が達成されているか達成見込みである。ただし、成果 5 については、対象州のカドゥナ州の治安の悪化に伴い、日本人専門家の活動も 2 年次でほぼ終了したため、十分な技術移転を行うことが困難であった。

(2) 投入の適正度

1) 日本人専門家派遣

本プロジェクトの2年次終了後、治安悪化によりプロジェクトが1年次近く延期され、他のプロジェクトのアサインの関係から同じ日本人専門家の参加ができなくなった。また、治安の悪化により日本人専門家がRWSSC・地方に移動・滞在できない事態となったため、十分な活動ができたとは言えない。

2) 機材

供与機材の仕様、種類、量については適切であるが、調達プロセスの遅れによって導入時期が計画より大幅に遅れたため（約18カ月の遅れ）、プロジェクトの進捗に影響を及ぼした。

3) ナイジェリア側の人員配置

ナイジェリア側のC/Pの人数、能力については適切である。ただし、R/Dでの取り決めによって、本プロジェクトのC/Pは、他の業務との兼任であった。そのため、日本人専門家が期待する技術移転とナイジェリア側が考えているプロジェクトへの貢献のレベルにギャップが見られた。また、C/Pは経験が豊富な者が多かったが、近い将来定年退職が見込まれているため、今後の持続性を考慮し、若手職員も同時に育成する必要があった。

4) ナイジェリア側予算配分

RWSSCの運営予算は適切に配分された。しかし、プロジェクト開始当初、NWRI/RWSSCには他の優先的に行う研修や施設の改修等に予算が重点的に配分され、研修費を補てんする予算がなかった³。2014年には州政府がRWSSCの研修に対する資金支援を開始しており、ナイジェリア側による予算の負担が行われている。しかし、2013年までは石油の国際価格の下落に伴う州予算の40%削減などの事情により、固定費を除く州の予算は他の用途に振り分けられたため、州が研修費を負担することが困難であった。また、RWSSCが創設されたばかりで州に十分に認識されていなかったことも、本プロジェクト開始当初に州から研修生を確保することができなかった要因の一つと考えられる。

3-1-4 インパクト

以下の理由により、インパクトはやや高い。

(1) 上位目標の達成度

ナイジェリア側が努力を継続すれば、上位目標は達成される見込みである。ただし、指標の達成には研修による能力強化のほかに、ナイジェリア国の予算配分や、RUWASSAによる井戸のモニタリングやリハビリの継続、スペアパーツのサプライチェーンの構築、コミュニティでの運営改善等の影響を受ける。

³ 中間レビュー時には、連邦政府からNWRI/RWSSCに振り分けられる予定だった予算が、組織変更によってその予算が州に振り分けられたことにより、NWRI/RWSSCが研修費を振り分けることができなかったとの説明があった。本調査時においても、本件の確認を試みたが、前回の聞き取り結果とは異なり、石油価格の変動により州政府の予算が削減されたため、州政府が研修費を負担することができなかったとの説明があった。前回の説明と食い違っており、どちらが事実なのかについては確認できなかった。

(2) 上位目標とプロジェクト目標の乖離

上位目標はプロジェクト目標と乖離している。給水サービスの改善は、上記の事項がすべて機能し改善されるものであり、研修の成果のみで改善することは難しい。

(3) 上位目標以外の正の効果・影響

本プロジェクトの実施によって、以下の正の効果・影響が見られた。

本プロジェクトで供与したモジュール、教材、機材等は、RWSSC の短期コースのみならず、NWRI の既存の長期コースでも活用される見込みであり、本プロジェクトの投入及び成果は更に有効活用される見込みである。

NWRI では、現在実施中の長期コース（サーティフィケートコース）にガンビア、ニジェール等他のアフリカ地域からも研修生を受け入れている。ガンビアに対する研修は継続することが決定しているため、NWRI/RWSSC への支援の効果は、他国にも波及する可能性がある。

3-1-5 持続性

以下のように、政策面、組織面、財政面、技術面から見た持続性はやや高い。

(1) 政策・制度面の持続性

本プロジェクトの政策面での持続性はやや高い。

ナイジェリアの給水分野に関する政策には変更は見られず、引き続き協力終了後も給水分野における支援は継続されるものと見られる。また、NPC が本政策のモニタリングを毎年継続している。

州からの研修参加を促進するために、NWRI のマネージメントチームが訪問し、パンフレットを配布するなどの活動を行っている。

4 年次にナイジャ州で実施されたインパクト調査の結果によれば、参加者の業種によって英語を話せる割合が非常に低いことや、中～上級者が参加するコースがないことが、参加者が限られる要因となっているとの分析がある。この需要に対処するため、講義を減らし実習主体にすることや上級者コースを開設する等、州の需要に的確に答えていく必要がある。

NWRI による他ドナーへの訪問等を通じて、他ドナーの資金を活用した研修を行う努力はなされている。しかし、他ドナーからの資金だけではなく、民間セクターを含め更に研修参加者を増やすために、研修ニーズの分析や参加者を確保するための努力が必要である。

(2) 組織面の持続性

本プロジェクトの、組織面の持続性はやや高い。

C/P である RWSSC の講師の教授能力は以前から高かったことに加えて、モジュールや教材の改訂等も行われたため、研修活動は今後も維持される見込みである。ただし、経験を積んだ講師の多くは近い将来に定年退職を迎える見込みであり、一方、若手への技術の移転が進んでいないため、ToT 研修を通じて後任に技術を移転する必要がある。終了時評価の時点

では、新たな候補者の面接までは終了しているが、財務省からの予算が承認されないため、雇用するまでには至っていない。2015 年度の新規採用の予算についても、申請を完了している。

治安の問題により、日本人専門家は 3 年次に RWSSC を訪問することができず、RWSSC の運営、特に研修実施体制（研修参加人数の事前把握・研修実施可否の事前判断・ロジ、アドミニ関連）に関する技術移転を十分に行うことができなかった。そのため、日本人専門家と NWRI/RWSSC の間で達成度合いの認識に差が見られており、RWSSC によるさらなる改善の余地があると見られる。

(3) 財政面の持続性

本プロジェクトの財政面の持続性はやや高い。

RWSSC の運営予算については、これまでも配分されてきた実績がある。また、2015 年度の予算については申請中であり、2015 年度の研修の広報についても、現在計画段階にある。

表 6 : RWSSC の予算の推移

	年度予算 (1,000NGN)					
	2009 年	2010 年	2011 年	2012 年	2013 年	2014 年
RWSSC の予算	33,252.7	10,642.5	15,113.3	15,925.0	25,925.0	7,600.0

出所：NWRI/RWSSC 提供資料

一方、研修の費用については、プロジェクト終了後も同様に州が負担するという形が継続する見込みである。州予算については、FMWR や NWRI/RWSSC がコントロールすることは困難であるが、NWRI 局長への質問票調査の結果によれば、地方部給水の需要が高まっているため、今後は州の研修に対する予算配分も改善されることを見込んでいる。また、NWRI/RWSSC 側からも今後の研修生の確保に向けて、広報活動の強化等の自助努力を継続する必要がある。

(4) 技術面の持続性

本プロジェクトの技術面での持続性はやや高い。

C/P である RWSSC の講師の教授能力は以前から高かったため、移転された技術は今後も維持される見込みである。ただし、上述のように財務省からの予算が承認されないため、若い世代の雇用までには至っていない。現在の C/P が定年を迎える今後 10 年間について技術面での持続性は確保されているものの、終了時評価の時点では、その後の持続性を担保するための次の世代への技術の引き継ぎまでは確認できていない。

NWRI/RWSSC の C/P への聞き取り調査によれば、今後も教材等の見直しを PDCA サイクルに基づき継続する計画との情報が得られた。

NWRI では、本プロジェクトで支援してきた短期研修コースのほかに、長期研修コースへと注力していく可能性を言及している。NWRI の局長への質問票調査によれば、技術者向けナシルディプロマの長期コース、科学技術者向けの高度ナシルディプロマの長期コースを 2015 年より開始することを計画している。また、将来的には、地方部の技術に特化した多

様なコースを設けることを検討している。そのコースにおいては、地方給水のみならず多様なトピックを扱う予定である。長期コースにおいても、短期コースの内容はその一部として実施されるため、本プロジェクトのマニュアル、研修プラン、機材等の成果はその一部として活用が可能である。

本プロジェクトで供与された機材については、終了時評価の時点では適切に管理されており、今後も維持管理は適切に行われる見込みである。

3-2 結論

本プロジェクトでは、治安の悪化など様々な阻害要因があったにも関わらず、キャパシティ・ギャップが明らかになり（成果 1）、現場のニーズに適応し、効果的な研修システム（モジュール、教材、機材など）が開発され（成果 2）、地方給水・衛生分野の研修講師の能力が強化され（成果 3）、研修が PDCA サイクルに見直された（成果 4）。

プロジェクト目標については、すべての指標が達成され、終了時評価の時点では、NWRI/RWSSC の努力によって州が研修費を負担する研修生の数が本プロジェクトの 4 年次に増加するなど、良い兆候が見られている。また、RWSSC の効率的な運営のために、長期コースの導入や新たな職員の募集などの対策が取られている。

しかしながら、日本人専門家が 2 年次終了以降カドゥナに訪問できず、技術移転が十分に行われなかった。ナイジェリア側は RWSSC の運営は改善の傾向にあると考えているが、RWSSC の運営には依然として改善の余地も残されている。NWRI/RWSSC の持続的な運営と地方給水サービスの改善のため、いくつかの対策を「第 4 章 提言と教訓」に提案する。

第4章 提言と教訓

4-1 提言

終了時合同評価団は、以下の点について提言を行った。

4-1-1 NWRI/RWSSC に対する提言

(1) ニーズアセスメントの継続

ナイジェリア州でのインパクト調査の結果では、掘削本数の増加や掘削成功率の改善などポジティブな結果が見られている。一方、持続性の項で述べたように研修コースの改善のための、いくつかの課題が見られている。RWSSC のプロジェクトマネージャーによれば、定期的にニーズアセスメントは実施され、報告書が作成されているとのことであるが、研修コースの内容をより柔軟に現状のニーズにより適したものに改定する努力を、今後も継続することが望ましい。

また、給水施設の建設は、将来的には他国のように民間セクターが実施するようになると考えられるため、民間セクターの需要に応える NWRI は想定される研修受講者のニーズを分析し、研修コースの内容・構成を改定していく必要がある。

(2) 長期コースの実現

NWRI は、長期研修コースの導入を推進していく可能性について言及している。これは、NWRI/RWSSC の施設を効果的に活用する上で、良い選択であると考えられる。本長期コースを2015年から確実に開始できるよう、可能な限りの努力を継続することが望ましい。また、マニュアル、研修計画、機材等、本プロジェクトの成果を新しいコースにおいても活用していくことが望ましい。

(3) スキル/知識の若い世代への移転

現在の C/P の平均年齢を考えると、彼らの経験を若い世代に引き継ぐことが必要である。NWRI は既に新規職員の雇用のための予算を申請しているが、未だに承認されていない。これらの雇用について、引き続き予算を確保するための努力を継続することが必要である。また、新規職員の雇用後に円滑に ToT を実施し、技術移転を進めるためにも、予算の承認を待っている間、C/P のノウハウを組織に蓄積する努力も必要である。

4-1-2 FMWR/RUWASSA に対する提言

(1) 上位目標を達成するための多様な努力を継続する必要性

上位目標を達成するためには、RWSSC で研修を行うだけでは不十分であり、ナイジェリア側の予算の割り当て、RUWASSA による継続的な井戸のモニタリングやリハビリ、スペアパーツのサプライチェーンの構築、コミュニティレベルでの運営維持管理の改善等、FMWR や RUWASSA による多様な項目にわたる努力を継続していく必要がある。

(2) FMWR から州への、RWSSC における研修のための予算割り当ての奨励

ナイジェリアでは、民間業者がアクセスの悪い地域や掘削が難しい地域の仕事は受注しないなどの問題があり、RUWASSA の役割は引き続き重要である。そのため、高度な技術が求められる RUWASSA の技術者の研修を行うため、FMWR は州に対して十分な研修費用を割り当てることを奨励することが望ましい。

(3) 教訓

本プロジェクトでは、以下の教訓が得られた。

1) 現地国内研修費を活用する利点

研修費は各州に配分されており、NWRI/RWSSC には同予算が配分されていなかったため、研修生数を確保するために現地国内研修制度の予算から研修費を捻出した。プロジェクト開始当初、研修コースの実施を通じた技術移転を行うために、これは必要な対策であったが、外部の資金源を活用した研修生の確保は、NWRI/RWSSC が自助努力により研修生を確保することを遅らせる一つの要因にもなったと考えられる。そのため、プロジェクト活動のために外部の資金源が使用される場合には、追加の資金投入が先方の自助努力を抑制してしまうリスクについて十分に検討する必要があった。

2) プロジェクト開始時における研修費の明確化

本プロジェクトの事前評価や R/D では、RWSSC における研修費（研修生の参加費）の資金源について明確に確認されていない。プロジェクト開始後に NWRI/RWSSC が研修費を確保できていないことが明らかになったが、研修実施に関する技術移転のためには、研修生を確保して研修を実施する必要があった。そのため、研修費については、JICA の現地国内研修費が活用されることとなった。本プロジェクトの効率的な実施のためには、プロジェクト開始時にこれらの予算の資金源について R/D に明記し、日本側とナイジェリア側で合意しておく必要があった。

3) C/P の年齢構成への配慮

他の組織にも共通する課題ではあるが、RWSSC には若手職員が不足しているため、本プロジェクトの C/P は平均年齢が高く、近い将来に定年退職を迎える者が大半であった。プロジェクトで移転された技術の持続性を確保するためには、若い世代にも同時に技術移転を行う必要があったため、C/P の年齢構成が将来の持続性に影響を与えられられる場合には、プロジェクト実施期間中に新規雇用を行う努力をする旨、日本側、ナイジェリア側で合意しておく必要があった。

4) プロジェクト開始時における機材調達の責任分担

本プロジェクトの開始にあたって、機材の調達を JICA のどの部署が行うのかが明確に規定されていなかった。コンサルタント側では JICA ナイジェリア事務所で調達を行う前提のもと英文で仕様書を作成していたが、その後日本側で調達を行うこととなった。そのため、仕様書を和文に修正する作業が発生し、その翻訳に長期を要したため、研修コースの実施に必要な機材の調達が大幅に遅れた。機材の調達の遅れにより、機材の使用が必要な井戸掘削関連の研修が実施できず、本プロジェクトの進捗が阻害された。そのため、JICA

のどの部署が機材を調達するのかについては、プロジェクト開始時に日本側で明確にしておく必要があった。

5) 治安悪化に伴う PDM の改定

本プロジェクトでは、治安の悪化によりプロジェクトの対象施設である RWSSC に直接訪問して運営の改善に関する技術移転をすることができなくなり、支援する研修コースも 9 から 4 に変更となったが、その時点で上位計画やプロジェクト目標は変更されなかった。そのため、十分に運営が改善されていないにも関わらずプロジェクト目標の指標は達成されていたこと、残された 4 つの研修は新規井戸掘削に係る研修であるにも関わらず、上位目標では井戸の稼働率が指標となっていることなど、PDM のロジックの整合性が取れていない状況が生じた。治安悪化に伴い PDM の変更を行う場合には、その投入や活動を精査し、場合によってはプロジェクト目標や上位目標についても変更して現状に即したものとする必要があった。

6) 現実的な上位目標の設定

本プロジェクトの上位目標には、「地方給水・衛生関係者の能力強化を通じて地方給水サービスが改善される」が設定されている。しかし、本プロジェクトのインパクト評価の結果では、新規井戸掘削の成功率の向上は調達された機材によるところが大きいこと、給水率の維持管理についてはナイジェリア側の予算措置、RUWASSA による継続的なモニタリング及び改修、スペアパーツのスペアパーツサプライチェーンの確立、給水衛生委員会の設置等が重要であることなどが指摘されており、研修の成果が上位目標の達成に直結しているかを判断することは難しい。事後のプロジェクトの評価に向けて、プロジェクトの成果から得られる現実的な上位目標を、設定しておく必要があった。

以上

付 属 資 料

1. 主要面談者一覧
2. ミニッツ・合同評価レポート
3. 評価グリッド
4. PDM

添付資料 1：主要面談者一覧

ナイジェリア側関係者

1. 連邦水資源省（FMWR）給水局

Mr. R. C. Onyeanusu 局長

Mr. Adetunji Idowu 副局長

Mr. Ogbonna Kenneth Emeka

2. 連邦水資源省（FMWR）計画・調査・統計局

Mr. Wakil Adamu 局長

3. 国家計画庁（NPC）

Mr. Abdulraheem Muhammad Yusuf 局長補佐

Mr. Aso Vakporaye

Ms. Oluwakemi Oguryobi

Mr. Chika Nwoch

Mr. Muhammad N. Alfa

4. 連邦水資源研修所（NWRI）／地方給水・衛生能力開発センター（RWSSC）

Dr. Olusanjo A. Bamgboye 局長

Dr. O. O. O. Oni プロジェクトダイレクター

Dr. Martin O. Eduvie プロジェクトマネージャー

Mr. Sylvestes Gojim Sara カウンターパート

Mr. Olabode T. Olusola カウンターパート

Dr. Omogbemi O Yaya カウンターパート

5. UNICEF

Mr. Kanan NADAR 給水衛生チーフ

日本側面談者

1. 在ナイジェリア日本国大使館

吉村 力 一等書記官

2. JICA ナイジェリア事務所

関 徹男 所長

下平 千恵 職員

Mr. Bamidele Olatunji コンサルタント

3. プロジェクト専門家

吉田 健次 総括

MINUTES OF MEETING
BETWEEN
THE AUTHORITIES CONCERNED OF
THE GOVERNMENT OF THE FEDERAL REPUBLIC OF NIGERIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
ON
JAPANESE TECHNICAL COOPERATION PROJECT
FOR
THE PROJECT FOR ENHANCING THE FUNCTION OF RURAL WATER
SUPPLY AND SANITATION CENTRE FOR CAPACITY DEVELOPMENT IN
NATIONAL WATER RESOURCES INSTITUTE (RWSSC PROJECT)

The Terminal Evaluation Team (hereinafter referred to as “the Team”) organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) visited the Federal Republic of Nigeria (hereinafter referred to as “Nigeria”) from October 16th to October 30th, 2014 for the purpose of reviewing the progress and the achievements of the Project for Enhancing the Function of Rural Water Supply and Sanitation Centre for Capacity Development in National Water Resources Institute (hereinafter referred to as “the Project”).

During its stay in Nigeria, the Team visited the Federal Ministry of Water Resources (hereinafter referred to as “FMWR”) and National Water Resources Institute (hereinafter referred to as “NWRI”) and exchanged views and opinions with stakeholders on the Project. As a result of discussions, both parties agreed on the matters referred to in the attached Joint Terminal Evaluation Report.

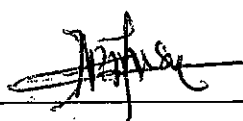
Abuja, October 30th, 2014



Mr. Adetunji Idowu
Deputy Director
Department of Water Supply,
Federal Ministry of Water Resources



Mr. Tetsuo Seki
Leader
Terminal Evaluation Team
Japan International Cooperation Agency



Mr. Abdulraheem Muhammad Yusuf
Assistant Director
International Cooperation Department,
National Planning Commission

Joint Terminal Evaluation Report
on
the Project for Enhancing the Function of Rural Water Supply and Sanitation Centre
(RWSSC) for Capacity Development in National Water Resources Institute (NWRI)

Abuja, October 30th 2014

Joint Evaluation Team for RWSSC Project




TABLE OF CONTENTS

1. Outline of the Evaluation		
1-1 Objectives of the Evaluation	.....	5
1-2 Schedule of the Evaluation	.....	5
1-3 Members of Evaluation	.....	6
1-4 Method of the Evaluation	.....	6
2. Outline of the Project		
2-1 Background of the Project	.....	7
2-2 Summary of the Project	.....	8
2-3 Duration of the Project	.....	8
2-4 Implementing Agency of the Project	.....	9
3. Achievements and Implementation Processes		
3-1 Achievements of the Project		
3-1-1 Inputs	.....	9
3-1-2 Achievements of the Outputs	.....	9
3-1-3 Prospects to Achieve the Project Purpose	.....	14
3-1-4 Prospect to Achieve the Overall Goal	.....	15
3-2 Implementation Processes of the Project	.....	16
4. Results of the Evaluation		
4-1 Results of the Evaluation based on the Five Criteria		
4-1-1 Relevance	.....	17
4-1-2 Effectiveness	.....	18
4-1-3 Efficiency	.....	20
4-1-4 Impacts	.....	21
4-1-5 Sustainability	.....	22
5. Conclusion	.....	24
6. Recommendations	.....	24
7. Lessons Learnt	.....	25

Handwritten signatures and initials, including a large stylized signature and the initials 'AS'.

ANNEXES:

- Annex 1: Project Design Matrix
- Annex 2: Plan of Operation
- Annex 3: Evaluation Grid
- Annex 4: Summary of Inputs
- Annex 5: List of Seminars and Trainings

TABLES :

- Table 1: Response of question on “whether training methods of trainers was appropriate”
- Table 2: Response of question on “whether technical level of trainers was appropriate”
- Table 3: Evaluation of ToT receiver’s capacities by RWSSC manager
- Table 4: Average of training evaluation by the participants of the trainings by each year
- Table 5: Number of participant of trainings by each year

FIGURES :

- Figure 1: Organization which borne the training expense for RWSSC trainings by year
- Figure 2: Organization which borne the training expense for RWSSC trainings

Handwritten signatures and initials in black ink, including a stylized 'J' and 'AS'.

Abbreviations

C/P	Counterpart
ESA	External Support Agency
FMWR	Federal Ministry of Water Resources
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
M&E	Monitoring and Evaluation
M/M	Minutes of Meeting
MM	Man Month
NPC	National Planning Commission
NWRI	National Water Resources Institute
O&M	Operation and Maintenance
PDCA	Plan-Do-Check-Act
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussions
RUWASSA	Rural Water Supply and Sanitation Agency
RWSS	Rural Water Supply and Sanitation
RWSSC	Rural Water Supply and Sanitation Centre
ToT	Training of Trainers
UNICEF	The United Nations Children's Fund
VI	Verifiable Indicator
WASHCOM	Water, Sanitation and Hygiene Committee

Handwritten signatures and initials, including a large stylized signature and the initials 'JB'.

1. Outline of the Evaluation

1-1 Objectives of the Evaluation

The evaluation activities were performed as follows:

- (1) To collect necessary information and confirm the progress of inputs, activities and implementation process on the basis of Project Design Matrix (PDM) and Plan of Operation (PO) of the Project for Enhancing the Function of Rural Water Supply and Sanitation Centre (RWSSC) for Capacity Development in National Water Resources Institute (NWRI) (hereinafter referred to as "the Project")
- (2) To assess the achievement of Outputs, Project Purpose and Overall Goal
- (3) To analyze and evaluate the overall effect of the Project by the five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact and Sustainability)
- (4) To make recommendation based on the results of evaluation and identify lessons learnt useful for new Projects and/or other ongoing Projects

1-2 Schedule of the Evaluation

The schedule of the mission is indicated as below;

Date	Day	Japanese Team	Nigerian Team
Oct 16	Thu	Preparation meeting	
Oct 17	Fri	Interview with The United Nations Children's Fund (UNICEF) Interview with Water Supply Department, Federal Ministry of Water Resources (FMWR) Interview with National Planning Commission (NPC)	
Oct 18	Sat	Preparation of report	
Oct 19	Sun	Preparation of report	
Oct 20	Mon	Interview with Japanese expert Interview with Planning, Research and Statistics department, FMWR	Site visit at Kaduna
Oct 21	Tue	Preparation of report	Site visit at Kaduna
Oct 22	Wed	Interview with C/Ps of NWRI/RWSSC Preparation of report	
Oct 23	Thu	Meeting of joint evaluation team	
Oct 24	Fri	Explanation of draft evaluation report	

		to team leader of Japanese side	
Oct 25	Sat	Preparation of report	
Oct 26	Sun	Preparation of report	
Oct 27	Mon	Meeting of joint evaluation team	
Oct 28	Tue	Meeting with FMWR	
Oct 29	Wed	Meeting with joint evaluation team	
		Explanation of draft evaluation report to NWRI/RWSSC	
Oct 30	Thu	Explanation of the result of the evaluation to Minister	
		Presentation of the evaluation result at Joint Coordination Committee (JCC)	

1-3 Members of the Evaluation

The Joint Terminal Evaluation Team (hereinafter referred to as "the Team") consists of the following members;

(1) Nigerian Government members

Name	Title	Position in the Team
Mr. Adetunji Idowu	Deputy Director, Department of Water Supply, FMWR	Member
Mr. Abdulraheem Muhammad Yusuf	Assistant Director, International Cooperation Department, NPC	Member
Ms. Oluwakemi Ogunronbi	International Cooperation Department, NPC	Member

(2) JICA mission members

Name	Title	Position in the Team
Mr. Tetsuo SEKI	Chief Representative, Nigeria Office, JICA	Team Leader
Mr. Masanori YAMAZAKI	Representative, Global Environment Department, JICA	Cooperation Planning
Mr. Satoshi NAGASHIMA	Senior Consultant, ICONS Inc.	Evaluation Analysis

1-4 Method of the Evaluation

The Project was evaluated by the Team. The Team was composed by three (3) of Japanese side and three (3) from Nigerian side. The Team visited the Project sites and carried out a series of interviews and discussions with FMWR, NPC, NWRI and RWSSC. The evaluation was designed to verify the following aspects based on the PDM and PO:

- 1) Achievements of the Project on the basis of indicators of PDM (Annex 1) and Evaluation Grid (Annex 3);
- 2) Process of the Project implementation; and
- 3) The five evaluation criteria.

Definitions of the five criteria are as follows:

Relevance	Relevance of the plan for the Project has been reviewed in terms of validity of the Project objective and overall goal, in connection with the development policy of the Government of Nigeria, the foreign assistance policy of the Government of Japan, the needs of beneficiaries, and the logical coherence of the Project.
Effectiveness	Effectiveness is considered by assessing the extent of achievement of the Project objective and the clarification of the relationship between the Project purpose and the outputs.
Efficiency	Efficiency of the implementation of the Project is analyzed with focus on the relationship between outputs and inputs in terms of time, quality and quantity of inputs.
Impact	Impact of the Project is evaluated on the basis of direct or indirect, positive or negative, intended or unintended influences generated by the Project.
Sustainability	Sustainability of the Project is evaluated on the political, institutional, financial and technical aspects for examining how the achievements of the Project would be sustainable after the period of the Project.

2. Outline of the Project

2-1 Background of the Project

Nigerian Government was trying to supply safe water to all population by 2011 based on "Nigeria's National Rural Water Supply and Sanitation Policy (2000)" and "Rural Water and Sanitation Programme (2004)". However, the rate to access safe water had not sufficiently improved (46% in 1990 and 62% in 2009) because of effect such as increase of the population, and the water borne diseases such as guinea worm, diarrhea and cholera especially in rural area because of utilization of insanitary water.

FMWR in Nigeria realizes that capacity development is important factor for Rural Water Supply and Sanitation Agency (herein after referred to as RUWASSA) and Department of Water Resources in each State to improve the rural water supply situation and to achieve the objective mentioned above. In addition, it is also important to reinforce the training implementation capacity of NWRI which conducts technical trainings for the relevant staffs both at States and national level. So far, NWRI had conducted trainings on the level of urban water supply and water supply in small town

Handwritten signatures and initials, including a large stylized signature and the initials 'AB'.

but had not conducted trainings in rural water supply and sanitation. For that reasons, NWRI newly established RWSSC and tried to reinforce the training implementation capacity specially to deal with the rural water supply area.

However, NWRI/RWSSC had difficulties in identifying the problems such as:

what is the challenges in capacity development of NWRI/RWSSC?,

what type of training is appropriate?

how can we examine the curriculum and prepare training materials? ; and

how can we improve the capacity of the trainers and coordinators?

To solve the problems, Nigerian Government requested for Technical Cooperation from Japanese Government to improve the capacity of NWRI/RWSSC in conducting of the trainings. The Project has been started since March 2010 after signing of R/D on 21st October 2009.

2-2 Summary of the Project

The Project design is drawn in the PDM (attached as Annex 1), which was modified in mid-term review. Its summary is as follows:

(1) Overall Goal

Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.

(2) Project Purpose

Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.

(3) Outputs

- 1) Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.
- 2) Responsive and effective training system (Modules, materials, and facilities, etc) is developed.
- 3) Trainers capacity in RWSS is enhanced.
- 4) Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.
- 5) Management of RWSSC is improved.

2-3 Duration of the Project

Four years and eight months from March 2010 to November 2014

2-4 Implementing Agency of the Project
NWRI/RWSSC is the Implementing Agency.

3. Achievements and Implementation Processes

3-1 Achievements of the Project

3-1-1 Inputs

(1) Input from Nigerian side

1) Assignment of C/Ps

Nigerian side has assigned 12 counterparts. The list is shown in "Annex 4: Summary of Inputs".

2) Facilities and utilities

Nigerian side provided a Project office, a generator, and alternative internet service

3) Operational cost

NGN 108,458,500 was allocated for the operation of RWSSC.

(2) Input from Japanese side

1) Japanese experts

Nine (9) Japanese experts have been dispatched and the total MM is at 61.37MM (Until November 2014). The detail is shown in "Annex 4: Summary of Inputs".

2) Machinery and Equipment

JY 121.5million of Geophysical prospecting equipment, training rig and related equipment, borehole camera, monitoring equipment, pumping test equipment etc. were procured. The detail is shown in "Annex 4: Summary of Inputs".

3) Operational cost

Project operation cost was borne by Japanese side at JY 9.7million in total. The detail is shown in "Annex 4: Summary of Inputs".

3-1-2 Achievements of the Outputs

Output 1: Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.

It can be evaluated that Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders have been identified. Capacity Assessment Reports was prepared in first year of the

Project. State level impact survey was also conducted at Niger State. The identified capacity gaps were shared through distribution of reports and presentation at seminars to RWSS stakeholders.

(1) Indicator 1.1: Capacity Assessment Reports are made in the first year of Project and revised by the end of the Project.

VI 1-1 has been mostly achieved.

Capacity assessment report was prepared in first year of the Project. The report was supposed to be revised at target five States (Yobe, Katsina, Bauchi, Niger and Ondo) in fourth year of the Project but it was difficult to conduct the similar survey due to the security situation in Nigeria. As an alternative measure State level impact survey was conducted at Niger State where the security situation was stable and the improvement level of capacity gap was evaluated.

(2) Indicator 1.2: RWSS stakeholders including ESAs share the identified capacity gaps of RWSS stakeholders.

VI 1-2 is likely to be achieved.

1) One hundred copy of the report were prepared. When the Project team visited for survey in northern States (Sokoto, Kano etc.), the reports were directly distributed to RUWASSAs. In addition, it was also distributed to some States through the participants of the trainings. Fifty copies were distributed to each State through RWSSC.

2) A seminar was organized in first year of the Project and the contents of capacity gaps were shared with States which were provided Japan's grant aid, RUWASSAs, FMWR, State Ministry of Water Resources, NWRI, UNICEF etc. (in total 46 persons). In addition, a similar seminar was implemented in January 2014 and improved situation of capacity gaps was shared.

3) In the fourth year of the Project (beginning of November 2014), a seminar is planned to organize on presenting the result of the impact survey in Niger State and the result of the Project. Representatives of fifteen States are supposed to attend the seminar (ten JICA assisting States and other five States).

Output 2:

Responsive and effective training system (Modules, materials, and facilities, etc) is developed.

It can be evaluated that responsive and effective training system has been developed. Revised and newly developed training materials have been utilized in trainings according to training modules and programme. The equipment procured has been utilized since the beginning of the third year of the Project.

- (1) Indicator 2-1: Revised and newly developed training materials including manuals are utilized in trainings according to Training Modules and Programme by September 2010.

VI 2-1 has been achieved.

Revised and newly developed training materials including manuals have been utilized in trainings according to training modules and programme. As mentioned in the completion reports of second year and third year of the Project, the contents of the trainings have been improved based on the M & E results.

- (2) Indicator 2-2: Facilities and equipment are maintained and arranged for trainings and training Programme

VI 2-2 has been achieved.

Procurement of training equipment was delayed for 18 months than expected and they arrived in February 2013. This equipment has been utilized for trainings since beginning of third year of the Project.

Output 3:

Trainer's capacity in RWSSC is enhanced.

It can be evaluated that trainer's capacity in RWSSC was enhanced. Most of trainees responded that training methods of trainers was appropriate in the trainings of 2014. RWSSC manager evaluated that capacities of each trainer have been improved through ToT.

- (1) Indicator 3-1: More than 80% of trainees evaluate the trainers as "good".

VI 3-1 has been achieved.

According to results of training evaluation sheets from the trainees, 96.6% of trainees responded that training methods of trainers was appropriate in the trainings of 2014. In

addition, 98.3% of trainees also responded that technical level of trainers was appropriate in the trainings of 2014.

Table 1: Response of question on “whether training methods of trainers was appropriate”

	Level 1 (Very low)	Level 2 (Low)	Level 3 (Moderate)	Level 4 (High)	Level 5 (Very high)	Percentage of more than 4 (%)
2011	-	-	1	33	58	98.9
2012	-	-	-	5	17	100.0
2013	-	-	1	34	62	99.0
2014	1	-	1	5	52	96.6

Source: Material provided by the Project

Table 2: Response of question on “whether technical level of trainers was appropriate”

	Level 1 (Very low)	Level 2 (Low)	Level 3 (Moderate)	Level 4 (High)	Level 5 (Very high)	Percentage of more than 4 (%)
2011	-	-	5	24	61	94.4
2012	-	-	-	6	19	100.0
2013	-	-	4	30	62	95.8
2014	-	-	1	9	49	98.3

Source: Material provided by the Project

(2) Indicator 3-2: RWSSC managers and JICA experts judge Training of Trainer (ToT) receivers' capacity in terms of knowledge, attitude and skills are improved.

VI 3-2 has been achieved.

RWSSC manager has grasped the point of improvement through the discussion with trainers after implementation of ToT and described the result in the completion report. In addition, according to the questionnaire survey with RWSSC manager, it is mentioned that capacities of each trainer have been improved through ToT.

Table 3: Evaluation of ToT receiver's capacities by RWSSC manager

Name of course	Knowledge	Attitude	Skill
C/P of groundwater Investigation	5	5	5
C/P of borehole Construction and Management	5	5	5
C/P of drilling Technology	5	5	5
C/P of drilling Machinery Maintenance Technique	5	5	5

5: Improved, 4: Relatively improved, 3: No change, 2: Relatively worse, 1: Worse

Source: Answer of questionnaire survey

Output 4:

Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.

It can be evaluated that trainings were reviewed based on PDCA cycle. Improvement of the training system has been conducted based on the result of M&E (Monitoring and Evaluation). A revised procedure was implemented as scheduled from the 2012 year's training cycle.

- (1) Indicator 4-1: M&E are conducted on Training activities, Modules, Programme, Materials, Facilities and Equipment arrangement, Trainers and Trainees according to the M&E plan.

M&E has been conducted for the trainings. As described in second year completion report 4.1.4 and third year completion report 3.1.3, improvement of the training system has been conducted based on the result of M&E.

- (2) Indicator 4-2: Revising procedure was taken as scheduled from the 2012 year's training cycle.

VI 4-1 has been achieved.

A revised procedure was implemented as scheduled from the 2012 year's training cycle.

Output 5:

Management of RWSSC is improved.

It was difficult to evaluate the achievement of Output 5, since there is a gap that was noticed on the achievement level between Japanese experts' side and Nigerian side and insufficient source of information.

- (1) Indicator 5-1: Logistics and administrative matters are conducted according to the manual/work plan by March 2013.

It was difficult to evaluate the achievement level of VI 5-1.

A work manual and a work plan were prepared by the Project. The training place was relocated to a FCT Water Board at Abuja due to the security situation since third year of the Project and the activities have not been carried out at RWSSC. Because of the situation above, Japanese experts could not conduct activities for Output 5 as planned and they consider that the technical transfer of this matter was not sufficient. On the other hand, according to the interview survey with C/P of NWRI/RWSSC, it was

mentioned that there was a tendency of improvement on the management. As mentioned above, there was a gap that was noticed on the achievement level between Japanese experts' side and Nigerian side. The source of information which could be utilized to confirm the current situation was restricted. Therefore, it is expected that there is room for improvement.

(2) Indicator 5-2: More than 10 States are informed of the contents and period of Training at RWSSC.

VI 5-2 has been achieved.

A training plan was prepared each year and the opening date of trainings was widely announced to 36 States of RUWASSAs and related organization such as sending letters and public announcement on newspapers. Project stakeholders consider that the States who received the letter utilize the trainings of RWSSC for the good opportunity of human resource development.

3-1-3 Prospects to Achieve the Project Purpose

Project purpose:

Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.

The indicators for the Project Purpose have been achieved. Result of training evaluation become higher than beginning of the Project on four implemented courses. Four hundred and five (405) participants attended the trainings as at October 2014.

(1) Indicator 1: The evaluation result by the trainee at the end of the Project is increased compared with the ones at the beginning of the Project.

VI 1 has been achieved.

Result of training evaluation become higher than beginning of the Project on four implemented courses.

Table 4: Average of training evaluation by the participants of the trainings by each year

Name of course	2011	2012	2013	2014
Groundwater Investigation	3.62	-	3.89	-
Borehole Construction and Management	4.4	4.08	4.25	4.44
Drilling Technology	-	-	4.49	4.67
Drilling Machinery Maintenance Technique	-	-	4.21	4.55

Source: Evaluation team compiles based on the materials provided by the Project team

(2) Indicator 2: 350 RUWASSA staff will attend RWSSC trainings in total by the end of the Project.

VI 2 has been achieved.

Due to the security situation, number of courses was limited to four and indicator was also changed from 400 to 350. However, 405 participants have attended the trainings as at October 2014.

Table 5: Number of participant of trainings by each year

Name of Course	2011	2012	2013	2014	Total
Groundwater Investigation	9	-	38	26	73
Borehole Construction and Management	14	25	20	45	104
Drilling Technology			20	32	74
Drilling Machinery Maintenance Technique	-	-	20	19	39
Installation of hand pump and operation and maintenance	44	-	-	-	44
Rehabilitation of boreholes and maintenance	33	-	-	-	33
Public health	30	-	-	-	30
Community Mobilization	30	-	-	-	30
Total	160	25	98	122	405

Source: Materials provided by the Project team

3-1-4 Prospects to Achieve the Overall Goal

Overall Goal:

Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.

It is expected to achieve the Overall Goal in the future. The rate of functional rural water supply facilities is 100% in specific States which received the Grant Aid Project and it is expected that the rate of functional rural water supply facilities is maintained.

(1) Indicator 1: The rate of functional rural water supply facilities is increased compared with the ones before the participation to the Training at RWSSC in the specific States which received the Grant Aid Project.

It is expected to achieve the indicator.

In the specific States such as Katsina, Bauchi and Yobe, new boreholes were constructed after receiving the Grant Aid Project (92 in Katsina, 76 in Bauchi and 89 in Yobe) in 2011. All hand pumps (100%) are currently functioned at the time of the terminal evaluation. According to the "National Survey of Hand pump Functionality"

conducted by UNICEF, the nationwide hand pump functionality is 56.2%. Therefore, the rate of functionality in the States above is a significant figure. To obtain the result, various supports were made such as trainings at RWSSC and establishment of "Water, Sanitation and Hygiene Committee (WASHCOM)" supported by other in-country training by JICA etc. It is expected that the rate of functional rural water supply facilities is maintained.

At the time of ex-post evaluation which will be conducted after three to five years, it is expected that more than 80% of hand pump should be functional for the target facilities. (Because "Proportion of population using an improved drinking water source" in MDGs in 2015 is 77%, "Proportion of population using an improved drinking water source" could be replaced with "The rate of functional rural water supply facilities" and it is set at 80%.)

(2) Additional indicator: Accumulated number of RWSSC trainees will be more than 800 at the time in 2017.

Producing completed trainees through the training in RWSSC is expected to contribute to improve the service delivery of the rural water supply as the result. Therefore, it is necessary to monitor that each course produce minimum 15 trainees and the accumulated number of RWSSC trainees become more than 800 (15 trainees x nine courses x three years =405, completed trainees 405).

3-2 Implementation Process of the Project

No problem was seen on implementation process.

(1) Project Management System

Technical transfer has been conducted through not only ToT but also the collaborative works for preparing training programs, guidelines and materials. Since trainers had lots of training experience, there was little needs to enhance their training method. Therefore, technical transfer was carried out only for weaker area.

Meetings were regularly held until the end of second year of the Project. It was possible to discuss each other on weak area and items to reinforce the trainings and to utilize the opinion to improve training materials and textbooks. However, Japanese experts could not visit Kaduna due to the security situation and it was difficult to have such a meeting opportunity since third year of the Project.

In each JCC, decision makers of Nigerian side and Japanese side attended, important subjects were raised concerning the implementation and operation of the Project and the countermeasures were discussed. Therefore, the meetings functioned sufficiently.



Communication of the stakeholders between Nigerian side and Japanese side was smooth until second year of the Project, as Japanese expert could visit Kaduna and take action with them. Since it has been difficult to visit RWSSC due to the the security situation since third year of the Project and it was difficult to have sufficient communication. Communication was taken through E-mail during absent period of Japanese expert. Although Nigerian C/Ps consider that communication level was sufficient, Japanese experts regard that communication level was sometime not sufficient only through E-mail.

(2) Ownership of the Project

Nigerian C/Ps consider that they have contributed for Project activities sufficiently during the stay of Japanese experts. Operational cost of RWSSC has been properly spent.

4. Results of the Evaluation

4-1 Results of the Evaluation based on the Five Criteria

4-1-1 Relevance

Relevance of the Project is high as following reasons.

(1) Consistency with policy in Nigeria

As one of main goals in "Nigeria vision 20:2020" which was prepared in 2009, "sustaining access to portable water and basic sanitation" is given and developing unified programmes and manuals of management is expressed.

(2) Needs

In Nigeria, the potential of water development in rural area is high. However there is a problem such as private contractors have not been brought up sufficiently and they refuse to have works which are in poor access area or in the area where it is difficult to excavate. Therefore, the role of RUWASSA is still important. Purpose of the RWSSC is to train RUWASSA officers through reinforcing the capacity of NWRI/RWSSC and the need is high.

(3) Consistency with policy of Japan

The Project is positioned in "Rural water and sanitation programmes" of development subject "rural water and sanitation", in priority assistance area "Realization of human security and achievement of MDGs" in Nigeria's development plan prepared in 2012.

4-1-2 Effectiveness

Effectiveness of the Project is relatively high as following reasons.

(1) Achievement level of Project Purpose

Indicators of the Project Purpose were achieved at the time of terminal evaluation. In addition, number of participant funded by States budget tends to be improved in 2014 (Fifty eight participants were funded by States). This is due to effort of NWRI/RWSSC such as reinforcing public relations for ensuring the participants in response to termination of funding from the system of in-country training by JICA. It was also considered that improvement of prioritization of States' budget for RWSSC trainings due to improvement of the recognition was also one of the factors to increase the number of trainees funded by States.

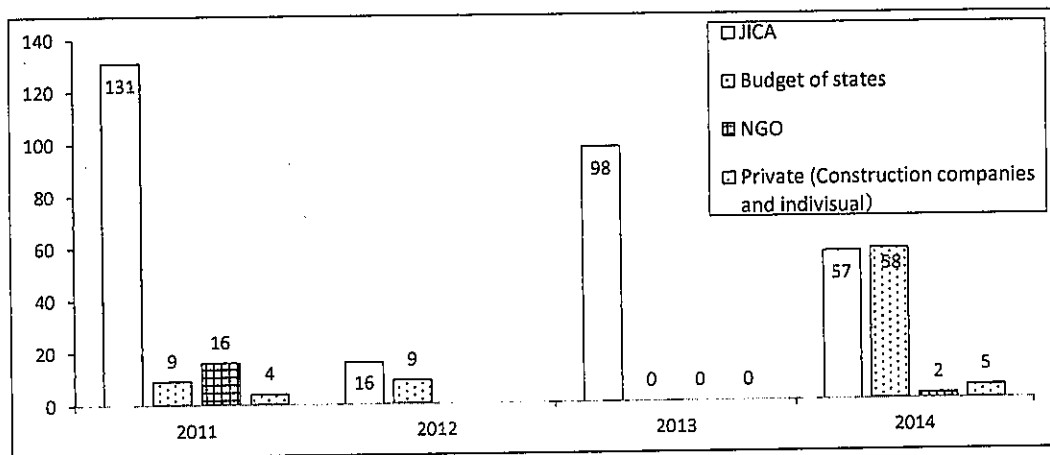


Figure 1: Organization which borne the training expense for RWSSC trainings by year

However, there is room for improvement.

Programmes, training materials and the capacity of trainers of RWSSC have been improved through the Project activities. On the other hand, there was limitation for the Japanese experts to implement their activities at RWSSC due to the security situation. The activities concerning improvement of the administrative capacities have not been conducted since third year of the Project, therefore there is a gap in the achievement level between the Japanese experts' side and the Nigerian side, there is a need for improvement of the administrative capacities.

In addition, an indicator of "350 RUWASSA staff will attend RWSSC trainings in total by the end of the Project" is set to examine the improvement level of efficiency of RWSSC as the Project Purpose and achieved at the time of terminal evaluation.

However, there were some inhibiting factors mentioned in “(2) Contributing factors or inhibiting factors”, and 75% of the participants utilized the fund from in-country trainings by Japan. Therefore, it is necessary to continue reinforcing the public relation activities to ensure the number of trainees from States by effort of Nigerian side after the Project.

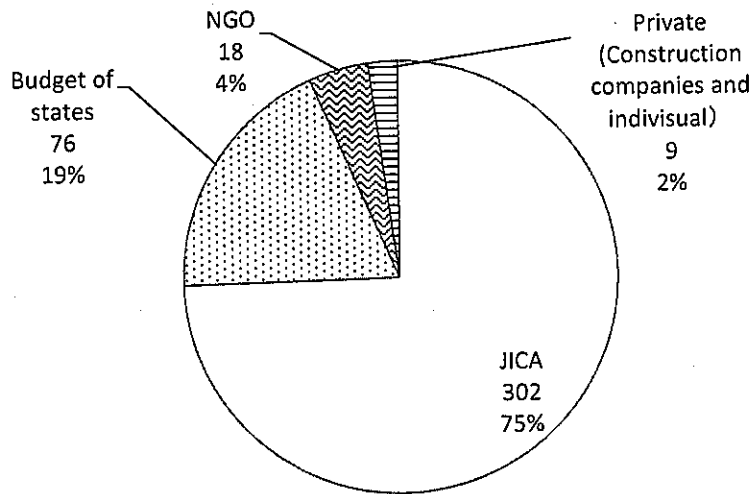


Figure 2: Organization which borne the training expense for RWSSC trainings

(2) Contributing factors or inhibiting factors

There were some contributing and inhibiting factors to achieve the Project Purpose.

1) Contributing factors

- a) NWRI received assistance by UNICEF on the field of public health and rural development since before and some manuals were already developed for utilizing the trainings of the Project.
- b) The system of in-country trainings of Japan’s grant aid Projects was utilized on “the Project for water supply in Bauchi and Katsina States” and “the Project for improvement of rural water supply” and RWSSC could ensure lots of trainees through the system.
- c) Since RWSSC trainers (C/Ps) had long experience of trainings and they have certain level of techniques, the effect of cooperation comes out just to improve the teaching materials etc.

2) Inhibiting factors

- a) Due to the security situation in Nigeria, Japanese experts could not visit rural area. Therefore location of the trainings had to be changed from RWSSC to Abuja and some activities were forced to terminate.
- b) Due to the delay of procurement procedure, arrival of equipment was delayed and it was forced to conduct only some trainings which are not necessary the equipment until arrival of the equipment in the beginning of the Project.
- c) It was not possible to ensure sufficient budgetary allocation for supplementing the training fee by NWRI/RWSSC in the beginning of the Project because it was expected that State Governments would make budget provision for the trainings. It was difficult to ensure the sufficient number of participants for the trainings from States because their budget were not fully funded.
- d) Although NWRI/RWSSC could ensure sufficient number of participants by utilizing the fund from the in-country trainings by JICA, NWRI/RWSSC concentrate to implement the courses for in-country trainings. In the consequence of this, reinforcement of public relation activities to ensure trainees by their self-help was delayed.

4-1-3 Efficiency

Efficiency of the Project is moderate as following reasons.

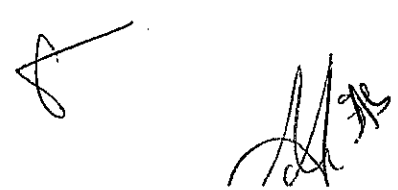
(1) Contribution of Activities

For Output 1-4, sufficient activities have been carried out and the indicators have been already achieved or are likely to be achieved. However, concerning Output 5, the activities of Japanese experts had been terminated in second year of the Project due to the security situation and it was difficult to conduct technical transfer as planned.

(2) Appropriateness of Inputs

1) Dispatch of Japanese experts

After the second year of the Project, implementation of the Project was postponed almost one year due to the security situation and some of Japanese experts could not join the Project activities again because of assignments of the other tasks. In addition, Japanese experts could not visit or stay in RWSSC or other States and rural area and could not carry out their activities sufficiently.



2) Procurement of equipment

Specifications, types and quantity of procured equipment are appropriate. However, timing of procurement was significantly delayed due to the delay of procurement procedure (delay of 18 months) and it influenced the progress of the Project.

3) Local cost borne by Japanese side

Concerning the activities in the sites, local cost borne by Japan side was appropriate.

4) Assignment of Nigerian C/Ps

Number and capacity of Nigerian C/Ps is appropriate. However, most of the C/Ps in the Project has additional post in NWRI as defined in the agreement of R/D. Therefore, there is a gap between a level of technical transferring which Japanese experts are looking for and level of contribution for the Project which Nigerian side considers. In addition, most of the C/Ps has lots of experience but they are also expected to retire. Therefore, it is also necessary to train younger staff to sustain and utilize the technics which were transferred through the Project.

5) Local cost borne by Nigerian side

The operational cost of RWSSC was properly allocated but it was difficult to ensure the budget for supplementing the training fee by RWSSC in the beginning of the Project. Though States Government started to fund the trainings of RWSSC significantly in 2014, it was difficult to ensure States funded participants until 2013 because they were not fully funded their budget.

4-1-4 Impacts

Impact of the Project is expected to be relatively high due to following reasons.

(1) Probability of Achievement of Overall Goal

It is likely to achieve the Overall Goal if Nigerian Government continues to make their effort properly. However, achieving the indicator of the Overall Goal will be affected by allocation of budget by Nigerian side, continuous monitoring and rehabilitation by RUWASSAs, establishment of supply chain of spare parts and improvement of O&M at community level etc.



(2) Positive or negative effect apart from the Overall Goal

Since long term course has some parts in common with short term course, the modules, the materials and the equipment procured in the Project will be utilized not only by the short courses of RWSSC but by the long term courses of NWRI effectively.

NWRI accepts trainees from other African countries such as the Gambia, Niger etc. Trainings for Gambian will be continued and the effect of supporting NWRI/RWSSC is expected to expand to other African countries too.

4-1-5 Sustainability

Sustainability is relatively high as following reasons.

(1) Political and Institutional Aspect

There is no change on the policy of water supply and sanitation in Nigeria and assistance by the Nigerian Government will be continued on the water supply and sanitation sector even after the Project. In addition, NPC is monitoring the progress of the policy each year.

In order to promote participation, NWRI management team visited each State and distributed brochures etc.

According to the result of impact survey conducted in Niger State, there is an analysis that the proportion of some category of technicians who can speak English is very low, and there is no course for middle to advanced technicians to participate. It is a factor that participants funded by States have been limited. In order to cope with such demands, it is necessary to respond appropriately to the demand of the States such as reducing the lecture and conduct trainings mainly by practices or opening of advanced courses etc.

Effort was made by NWRI to conduct trainings by utilization of the funding of other donors through personal visit to other donors. However, not only visiting but it is also necessary to analyze the needs of potential candidates to attract more participants from private sectors or other donors.

(2) Organizational Aspect

Since Training Capacity of C/P at RWSSC was high, it is expected that training activities will be sustained in the future. Although, most of C/Ps are senior officers and their retirement is expected, technics has not transferred to the younger generations yet. Therefore it is necessary to transfer the technics to their successors through ToT. At the

time of terminal evaluation, NWRI has already carried out interviews with the now candidates. However, employment has not been done because the budget for the employment has not been admitted by Federal Ministry of Finance yet. NWRI has just submitted a new Personnel Budget Proposal for 2015 to employ 78 of next generation of Trainers.

Due to the security situation, Japanese experts could not visit RWSSC since third year of the Project and technical transfer was insufficient for improvement of the management especially system of training implementation (such as preliminary grasping of number of participants, preliminary judgment of implementing or not implementing the trainings, logistic and administration issues). Therefore, there is room for improvement on the management of RWSSC.

(3) Financial Aspect

Budget provision for 2015 already in progress and advertisement issues of trainings are already at planning stages.

Current system of budget allocation will continue even after the Project. According to the executive director of NWRI, NWRI expects that State budget disbursement for training will be improved because of increasing demand for rural water supply.

(4) Technical Aspect

Since Training Capacity of C/P at RWSSC was enough, transferred techniques will be sustained by C/Ps even after the Project. However, the employment of next generation has not been carried out and it is difficult to confirm the possibility of the technical transfer to next generation at the time of the terminal evaluation.

According to interview with C/P of NWRI/RWSSC, they mentioned to continue revising the modules and materials based on the PDCA cycles.

NWRI mentions the possibility to promote introducing long term training courses. According to the executive director of NWRI, the two long term programmes such as National Diploma (Technicians) and Higher National Diploma (Technologists) are scheduled for early 2015 in addition to existing two long term courses (Certificate course and Advanced Diploma Course). The courses will cover not only rural water supply sector but also cover various topic. Since long term course has some parts in common with short term course, outputs of the Project such as manuals, training plan and equipment etc., are also possible to utilize in the new courses as part.

5. Conclusion

In the Project, capacity gap of RWSSC (NWRI) and RWSS stakeholders were identified (Output 1), responsive and effective training system (Modules, materials, and facilities, etc) was developed (Output 2), trainer's capacity in RWSSC was enhanced (Output 3) and trainings were reviewed based on PDCA cycle (Output 4) despite lots of inhibiting factors such as security problem.

Concerning the Project Purpose, all indicators have been achieved and good signs are seen at the time of terminal evaluation such as number of participants funded by the States increase in fourth year of the Project by the effort of NWRI/RWSSC and some measures for effective operation of RWSSC are taken by them such as introduction of long term courses and recruitment of new staff etc. The sustainability of RWSSC can be improved if current efforts continue.

However, there is room for improvement of the management of RWSSC because Japanese experts could not visit Kaduna after the termination of second year of the Project due to the security situation and technical transfer was not conducted as planned. For sustainable management of NWRI/RWSSC and achievement of Overall Goal, the following recommendations are proposed.

6. Recommendations

The evaluation team recommends the following points:

(1) For NWRI/RWSSC

1) Continuation of needs assessment

The result of the impact survey conducted in Niger State shows positive outcomes but there are rooms for further improvement of the training courses. According to the Project manager, NWRI regularly conduct needs assessment and prepare the report. It is necessary to continue the effort to adjust the contents of training courses to make it more suitable to the real needs of the participants in more flexible manner.

In addition, construction of water supply facilities involves private operators as in other countries. To meet the demand of the private operators, it is also necessary to analyze their needs and revise the contents of training courses.

2) Realization of long term training courses

NWRI mentions the possibility of introducing long term training courses. It is better to utilize the facilities of NWRI/RWSSC effectively. It is recommended to make best effort to start the long term courses from 2015. It is also suggested to utilize outputs of the Project such as manuals, training plan and equipment etc for the new courses.



3) Transfer of skills/knowledge to younger generation

Considering C/Ps are senior officers, handing over their experience to younger generations is necessary. Although NWRI has already requested the budget for the recruitment of new staffs but they have been waiting for final approval from budget office. It is recommended to continue the current effort to secure the budget for employment as well as to internalize their know-how while they are waiting for the budget. Through these efforts, ToT for younger generation will be effectively conducted and sustained after the recruitment of new staff.

(2) For FMWR and RUWASSA

1) Necessity to make efforts on various matters for achieving Overall Goal

To achieve Overall Goal, it is not sufficient only by implementing trainings by RWSSC but also necessary to make efforts on various matters such as allocation of budget by Nigeria, continuous monitoring and rehabilitation by RUWASSAs, establishment of supply chain of spare parts and improvement of O&M at community level etc. by FMWR and RUWASSAs.

2) Encouragement of budgetary allocation for trainings in rural water supply at RWSSC from FMWR to State Governments.

In Nigeria, the role of RUWASSAs is still important because there is a problem such as private contractors have not been brought up sufficiently and they refuse to have works which are in poor access area or in the area where it is difficult to excavate. Therefore, it is recommended to FMWR to encourage State Governments to allocate sufficient budget for the trainings of technicians of RUWASSAs.

7. Lessons Learnt

(1) Advantage and disadvantage of utilization of in-country trainings budget

Since there was not sufficient budget for supplementing trainings fee at NWRI/RWSSC, budget from the system of in-country trainings by JICA was utilized for ensuring the number of participants. Although it was necessary measures in the beginning to do the technical transfer through the implementation of training courses, it also might restrict the effort of NWRI/RWSSC to ensure the participant by self-help. Therefore, it was necessary to consider well whether the additional funding has adverse effect or not on bringing out their own effort to ensure the participants when external funding source was utilized for the Project activities.

Handwritten signature and initials in the bottom right corner of the page.

(2) Define the source of training fee at the beginning of the Project

In the ex-ante evaluation report and R/D, a source for trainings fee at RWSSC was not clearly confirmed and it was not mentioned in these documents. Therefore, Japanese experts and NWRI/RWSSC could not ensure necessary budget for training fee in the beginning of the Project and the fund from in-country trainings of JICA was utilized. It was necessary to well define the budget source clearly in R/D and have agreement between Japanese side and Nigerian side for smooth implementation of the Project.

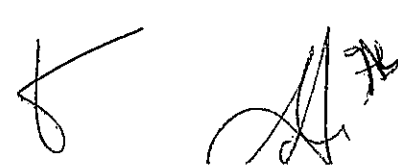
(3) Considering the composition of C/Ps age

Most of C/Ps was senior officers due to the institutional structure and their retirement is expected in the near future. Therefore, to ensure the sustainability of technics which are transferred through the Project, it is necessary to train the younger generations simultaneously. The composition of C/P should be well considered in the beginning of the Project to ensure the sustainability.

(4) Sufficient coordination for procurement of equipment

Since it was not clearly defined that which department of JICA will procure the equipment, procurement of them was significantly delayed and it influenced the progress of the Project. It was necessary to define clearly which department of JICA will procure the equipment in the beginning of the project in order to procure as planned. In addition, it was also necessary to consider the local situation when JICA determine the specification of equipment in order to ensure the maintenance of equipment.

End



ANNEX 1: Project Design Matrix

Project Name : Project for Enhancing the Function of RWSSC in NWR (RWSSC Project)
 Target Group : RWSSC-NWR, Kaduna

Duration : March, 2010 ~ November, 2014

PDM Ver. 3.0

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Service Delivery of RWSS is Improved in Nigeria through Capacity Development of stakeholders.	1. The rate of functional rural water supply facilities is increased compared with the ones before the participation to the Training at RWSSC in the specific States which received the Grant Aid Project.	1. National Statistics Office / Statistic Data at RUWASSA	
Project Purpose Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.	1. The evaluation result by the trainees at the end of the Project is increased compared with the ones at the beginning of the Project. 2. 350 RWSSC staff will attend RWSSC trainings in total by the end of the Project.	1. Training participants evaluation results 2. Training participants Database	The trainees who participated to the Training at RWSSC remain working at his workplace. The budget for the RWSSC at the specific States which receive the Grant aid Project will not be reduced compared with the one before the participation to the Training
Outputs			
1. Capacity Gaps of RWSSC (NWR) and RWSS stakeholders at States, LGAs and Community levels are identified.	1.1 Capacity Assessment Reports are made in the first year of project and revised by the end of the Project. 1.2 RWSS stakeholders including ESAs share the identified capacity gaps of RWSS stakeholders.	1.1 Capacity Assessment Report 1.2 Workshop reports	Governments and other stakeholders continue to send RWSSC staff for trainings.
2. Responsive and effective training system (Modules, materials, and facilities, etc) is developed.	2.1 Revised and newly developed training materials including manuals are utilized in trainings according to Training Modules and Programme by September 2010. 2.2 Facilities and equipment are maintained and arranged for trainings and training Programme.	2.1 Training Modules and Programmes, Annual Training Action Plan, Revised Developed training materials 2.2 Facilities and equipment list	
3. Trainers capacity in RWSSC is enhanced.	3.1 More than 60% of trainees evaluate the trainers as "good". 3.2 RWSSC managers and JICA experts judge ToT receivers' capacity in terms of knowledge, attitude and skills are improved.	3.1 Trainees evaluation, Check list 3.2 Supervisors' evaluation, Reports of ToT Trainings, Check list, Annual Training Implementation Reports (2011, 2012, 2013).	
4. Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.	4.1 M&E are conducted on Training activities, Modules, Programme, Materials, Facilities and Equipment arrangement, Trainers and Trainees according to the M&E plan. 4.2 Reviewing procedure was taken as scheduled from the 2012 year's training cycle.	4.1 M&E plan, M&E report 4.2 Annual Training Implementation Reports (2011, 2012, 2013).	
5. Management of RWSSC is improved.	5.1 Logistics and administrative matters are conducted according to the manual/work plan by March 2013. 5.2 More than 10 States are informed of the contents and period of Training at RWSSC.	5.1 Logistics and administrative manuals/work plans, Job description, Database of trainers, trainees, Questionnaire survey to the administration staff 5.2 Questionnaire survey to the States	
Activities	Inputs		
	Japan	Federal Republic of Nigeria	
1.1 Determine capacity assessment procedures and selection of target institutions (National, State, LGA and Community levels).	Personnel	Personnel	
1.2 Conduct capacity assessment of sampled institutions and produce reports.	- Chief Advisor / Rural Water Supply / Operation Management - Hydrogeology / Groundwater Development - Well Drilling Technology / Drilling Machine - Well Development / Water Supply Facilities / Well Rehabilitation	- Project Director Counterparts at working level. - Project Manager - Coordinator (Handpump) - Coordinator (Groundwater) - Coordinator (Capacity Assessment) - Coordinator (Drilling) - Coordinator (Information & Doc.) - Coordinator (Afr. WS) - Coordinator (Comm. Dev.) - Coordinator (Sanit. & Hyge.)	
1.3 Organize stakeholders workshop to present and improve the assessment.	- Geophysical Survey / Survey Analysis - Mechanical Equipment / Operation and Maintenance - Community Mobilization / Sanitation & Hygiene Promotion - Procurement Management	Office staff - Administrative Officer - Finance Officer - Secretary/Typist - Clerical officer	
1.4 Disseminate the reports to major stakeholders.	Training	Technical specialist - System Analyst - Driller - Driller - Mechanic	
2.1 Formulate training strategy for RWSSC and create RWSSC mission report.	In Japan and/or in third countries as per required	Facility, equipment and services	
2.2 Review and Formulate Training Programmes, Courses and Modules required as a result of the capacity assessment.	Equipment	- Project office, meeting room and necessary facilities for the experts including those in Federal Capital Territory to be used after third year of the Project - Facilities and services such as supply of electric power, desks, chairs, shelves, telephone line, internet connection necessary for the Project activities including those in Federal Capital Territory to be used after third year of the Project - Other facilities mutually agreed on as appropriate.	
2.3 Review and revise existing training materials.	- Training rig and related equipment - Well rehabilitation equipment - Geophysical prospecting equipment - Pumping test equipment - Monitoring equipment - Computers - Vehicles - Office utilities		
2.4 Develop training materials for the newly developed courses.			
2.5 Inventorize and procure required facilities and equipment.			
2.6 Produce users manuals of facilities and equipment.			
2.7 Provide On-the-Job-Training (OJT) to Users on facilities and equipment handling, operation and maintenance.			
3.1 Identify relevant trainers (qualification, skills, role, workload, etc).			
3.2 Formulate Training of Trainers (ToT) programme.			
3.3 Make ToT materials.			
3.4 Implement ToT programme. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)			
3.5 Evaluate ToT programme and its implementation. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)			
3.6 Develop and maintain database of trainers.			
Activities	Inputs		
	Japan	Federal Republic of Nigeria	
4.1 Develop a M&E Plan for the training courses, Modules, materials, trainees and resource persons/facilitators. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)		Local Cost	
4.2 Prepare and deliver trainings of stakeholders at States, LGA and Community levels. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)			
4.3 Conduct M&E on the training Modules, materials, resource persons/facilitators and trainees as planned and revise them as necessary. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)			
4.4 Revise M&E Plan as necessary. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)			
5.1 Publicize RWSSC's mandate/mission, objectives, functions and strategies to all stakeholders (including the Private sector) for first two years of Project.			Pre-conditions
5.2 Develop logistics and administrative manuals/work plans (budget, account, human & materials resources, training advertisement and "SS", etc) for first two years of Project.			The building of RWSSC is completed and the staff and budget are allocated.
5.3 Assign clear job description to each RWSSC staff for first two years of Project.			
5.4 Deliver appropriate management training to RWSSC staff for first two years of Project.			
5.5 Provide adequate enabling environment (office space, equipment, stationeries and transportation, etc) for RWSSC for first two years of Project.			
5.6 Collate database of trainers, trainees and trainings conducted.			
5.7 Propose to the Federal Ministry of Water Resources to allocate CIP funding to the Project.			

3-5 Evaluate ToT programme and its implementation				
3-6 Develop and maintain database of trainers				

Handwritten signature and a large checkmark-like mark.

Annex 2-1. Plan of Operation revised in the third year

[Expert/Personnel]	Name	2010												2011												2012												2013												2014											
		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																	
1.	Chief Advisor/Rural Water Supply/Organization and Project Management	Kenji YOSHIDA																																																											
2.	Hydrogeology/ Groundwater Development	*****																																																											
3.	Drilling Technology	Takashi NAKAKAWA																																																											
4.	Borehole Rehabilitation and Maintenance	*****																																																											
5.	Geophysical Exploration / Analysis	Toshiaki ISHIKAWA																																																											
6.	Drilling Machinery Maintenance	Akio MURATA																																																											
7.	Rural development / Community Mobilization and Sanitation	*****																																																											
8.	Public Relations	*****																																																											
9.	Procurement Supervision and Plan	*****																																																											
[Assistant]																																																													
1.	Local Facilitator																																																												
2.	Assistant Engineer																																																												
3.	Typist																																																												
1.	Capacity gaps of RWSS stakeholders (RWSSOWNRI, MWR, RUIWASSALGA and WASHICOM etc.) are identified																																																												
1-1	Determine capacity assessment procedures and selection of target institutions (RWSSOWNRI, MWR, RUIWASSA, LGA, Community level such as WASHICOM)																																																												
1-2	Conduct capacity assessment of sampled institutions and produce reports																																																												
1-3	Organize stakeholders workshop to present and improve the assessment reports																																																												
1-4	Disseminate the reports to major stakeholders																																																												
2.	Responsive and effective training system (Module, materials, and facilities, etc) is developed																																																												
2-1	Formulate training strategy for RWSSC and create RWSSC Mission report.																																																												
2-2	Review and Formulate Training Programmes, Courses and Module required as a result of the capacity assessment																																																												
2-3	Review and revise existing training materials																																																												
2-4	Develop training materials for the newly developed courses																																																												
2-5	Inventory and procure required facilities and equipment																																																												
2-6	Produce users manuals of facilities and equipment																																																												
2-7	Provide On-the-Job Training (OJT) to Users on facilities and equipment handling, operation and maintenance																																																												
3.	Trainers capacity in RWSS is enhanced																																																												
3-1	Identify relevant trainers (qualification, skills, role, workload, etc)																																																												
3-2	Formulate Training of Trainers (TOT) programme																																																												
3-3	Make TOT materials																																																												
3-4	Implement TOT programme and enhance trainers capacity (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)																																																												
3-5	Evaluate TOT programme and its implementation (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)																																																												
3-6	Develop and maintain database of trainers																																																												
4.	Trainings are delivered based on a PDCA cycle																																																												
4-1	Develop a M&E Plan for the training Courses, Modules, materials, Trainers and resource persons/facilitators. (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)																																																												
4-2	Prepare and deliver trainings of stakeholders at States, LGA and Community levels																																																												
4-3	Conduct M&E on the training Modules, materials, resource persons/facilitators and trainees as planned and revise them as necessary (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)																																																												
4-4	Revise M&E Plan as necessary (Course 1-4 until the end of Project, Course 4-9 for the first two years of Project)																																																												
5.	Management of RWSSC is improved																																																												
5-1	Publicize RWSSC's mandate/mission, objectives, functions and strategies to all stakeholders for first two years of Project.																																																												
5-2	Develop legal and administrative manuals/work plans (budget, accounts, human & material resources, training advertisement and "SS", etc) for first two years of Project.																																																												
5-3	Assign clear job description to each RWSSC staff for first two years of Project.																																																												
5-4	Deliver appropriate management training to RWSSC staff for first two years of Project.																																																												
5-5	Provide adequate enabling environment (office space, equipment, statistics and transportation, etc) for RWSSC for first two years of Project.																																																												
5-6	Collate and periodically revise database of trainers, trainees and trainings conducted.																																																												
5-7	Propose to the Federal Ministry of Water Resources to allocate CIP-funding in the Project.																																																												
JCC																																																													
Workshop																																																													
Report																																																													
Intermediate Evaluation																																																													
Terminal Evaluation																																																													

Annex 3: Evaluation Grid for Terminal evaluation

Project for Enhancing the Function of Rural Water Supply and Sanitation Centre (RWSSC) for Capacity Development in National Water Resources Institute (NWRI)

Verification of Achievement Level

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Input provided	Japanese side 1. Dispatch of Japanese Experts 2. Equipment 3. Financial support for local cost	Are the quantity, quality and timing of input as planned?	Quantity, quality and timing of input	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Nigerian side 1. Counterpart (C/P) 2. Facilities and utilities provided 3. Financial support				
Achievement level of Outputs	Output 1: Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.	Is VI ¹ 1-1 "Capacity Assessment Reports are made in the first year of project and revised by the end of the Project." likely to be achieved?	Result of Impact survey conducted in fourth year Draft of modified capacity assessment report	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 1-2 "RWSS stakeholders including ESAs share the identified capacity gaps of RWSS stakeholders." likely to be achieved?	Current distributing condition of Capacity Assessment Reports Implementing plan of final seminar		
	Output 2: Responsive and effective training system (Modules, materials, and facilities, etc) is developed.	Is VI 2-1 "Revised and newly developed training materials including manuals are utilized in trainings according to Training Modules and Programme by September 2010." likely to be achieved?	Current condition of utilization of training materials (Quality and frequency of use)	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Result of questionnaire survey and interviews with C/Ps	- Document survey - Interview - Questionnaire survey
		Is VI 2-2 "Facilities and equipment are maintained and arranged for trainings and training Programme." likely to be achieved?	Result of survey on current condition and operation and maintenance system on necessary equipment for trainings by Nigerian side		
Output 3: Trainer's capacity in RWSS is enhanced.	Is VI 3-1 "More than 80% of trainees evaluate the trainers as "good"." likely to be achieved?	Result of answered questionnaire	- Project reports - Result of questionnaire survey and interviews	- Document survey - Interview - Questionnaire survey	

¹ VI: Verifiable Indicator

A2-33

		Is VI 3-2 "RWSSC managers and JICA experts judge Training of Trainer (ToT) receivers' capacity in terms of knowledge, attitude and skills are improved." likely to be achieved?	Result of evaluation on ToT receivers' capacity by RWSSC managers and JICA experts	with Japanese experts - Result of questionnaire survey for RWSSC manager	
	Output 4: Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.	Is VI 4-1 "M&E are conducted on Training activities, Modules, Programme, Materials, Facilities and Equipment arrangement, Trainers and Trainees according to the M&E plan." likely to be achieved?	Implementation level of M&E plan	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 4-2 "Revising procedure was taken as scheduled from the 2012 year's training cycle." likely to be achieved?	Reflection level of revising procedure on training system Recording condition in annual report of NWRI		
	Output 5: Management of RWSSC is improved.	Is VI 5-1 "Logistics and administrative matters are conducted according to the manual/work plan by March 2013." likely to be achieved?	Current implementing condition on processing of logistics and administrative matters according to the manual/work plan	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Result of questionnaire survey and interviews with project manager	- Document survey - Interview - Questionnaire survey
		Is VI 5-2 "More than 10 States are informed of the contents and period of Training at RWSSC." likely to be achieved?	Number of States where RWSSC have been informed the contents and the period of Training Recognizing condition of target states		
Achievement level of Project Purpose	Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.	Is VI 1 "The evaluation result by the trainee at the end of the Project is increased compared with the ones at the beginning of the Project." likely to be achieved?	Result of evaluation by the trainee on trainings	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 2 "350 RWSS staff will attend RWSSC trainings in total by the end of the Project." likely to be achieved?	Number of RWSS staffs who have attended trainings at RWSSC (including Usma FCT, Abuja)		
Achievement level of Overall Goal	Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.	Is VI 1 "The rate of functional rural water supply facilities is increased compared with the ones before the participation to the Training at RWSSC in the specific States which received the Grant Aid Project." likely to be achieved?	The rate of functional rural water supply facilities which have been constructed by utilizing equipment procured by Japan's grant aid projects.	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
Precondition		Is the precondition "The building of RWSSC is completed and the staff and budget are	Current condition of facilities and building of RWSSC, current	- Project reports - Result of questionnaire	- Document survey - Interview

	allocated." fulfilled?	condition of arrangement on staff and budget	survey and interviews with Japanese experts and the project manager of Nigerian side	- Questionnaire survey
--	------------------------	--	--	------------------------

Verification of Implementation Process

Items of Evaluation	Evaluation Question	Necessary Data	Source	Acquisition Means
Method of technical transfer	Has the technical transfer properly been made to C/P?	Result of activities Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
Relation between stakeholders	Have regular meetings and JCC between the Nigerian C/Ps and Japanese Experts sufficiently contributed to solving problems that occurred in the implementation process?	Opinion from stakeholders	- Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Have the Nigerian C/Ps and Japanese Experts adequately communicated with each other to share information regarding the project management and activities?			
	Are proper system of command chain and clear demarcated structure established for the project management?			
Ownership of the Project	Have the Nigerian staffs (project manager and C/Ps of NWRI) adequately participated in project management and activities?	Result of activities Opinion from stakeholders of NWRI	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Has the Nigerian Government (NWRI) allocated and spent sufficient budget for the Project activities?	Financial condition Opinion from stakeholders of NWRI	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey

A2-35

	Does the Nigerian Government (Federal Ministry of Agriculture and Water Resource (FMWR) and National Planning Commission (NPC)) understand the contents of the Project well?	Level of understanding on the contents of the Project by stakeholders of FMWR and NPC	- Result of interviews with the project manager of Nigerian side - Result of interviews with FMWR and NPC	- Interview
Collaboration with Other Projects	Has the Project adequately collaborated with other projects implemented either by JICA or other donors?	Contents of collaboration with other donors Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey
Factors affecting the Implementation Process	Have restructuring of implementing organizations or reshuffling of the Project Manager and C/Ps affected the implementation of the Project?	Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Are there unpredictable factors which have adversely affected the Project implementation process?			

Evaluation based on Five Evaluation Criteria

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Relevance	Necessity	Is the Project Purpose and the needs of Nigerian side (target group) corresponded?	Development plan Related documents Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey
		Is the Project Purpose corresponded with the needs of target area and social situation?	Sector development plan Opinion from stakeholders		
	Priority	Are the Overall Goal and the Project Purpose consistent with the National Development Plan, Sector development plan, other relevant policies?	Documents concerning the policy of the sector Opinion from stakeholders		
		Is the project objective consistent with Japan's aid policy and country cooperation plan of JICA?	Aid policy of Japan	- Japan's aid policy	- Document survey
Suitability as a Means	Is the Project's approach was appropriate.	Result of project activities Result of project implemented by other donors Opinion from stakeholders		- Result of questionnaire survey and interviews with Japanese experts	- Interview - Questionnaire survey
	What kind of synergy has been with other donors?				

		Is the selection of target groups appropriate?	Opinion from stakeholders		
		Is the benefit of the effect to C/P and participants of trainings or the burden of the cost between Nigerian side and Japanese side distributed fairly?	Result of project activities Opinion from stakeholders		
		Is the experience of technical cooperation projects of JICA utilized?	Experience of similar project Opinion from stakeholders		
		Is the experience of Japan utilized?	Advantage of Japan's experience Opinion from stakeholders		
	Others	Is there any change on the environment (policy, economy and society) surrounding the project?	Opinion from stakeholders		
Effectiveness	Achievement level of Project Purpose(Forecast)	Is the Project Purpose likely to be achieved?	Project reports	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is the setting up of indicators of Project Purpose appropriate?	Opinion from stakeholders		
	Causal Relations	Are outputs of the project contributed to achieve the project objective? (Achievement of project outputs has been caused by the Outputs.)	Project reports Opinion from stakeholders		
		【Important assumption】 Governments and other stakeholders continue to send RWSS staff for trainings.	Project reports Opinion from stakeholders		
		Is there other important assumption?			
	What are the inhibiting or contributing factors to achieve the Project Purpose?				
Efficiency	Achievement of output	Is the Output likely to be achieved as planned by adequate activities? If not, what is the inhibiting factor?	Achievement level and time of the Output Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		It the indicators for each Output level appropriate?	Achievement level Causal relation with Project Purpose		
	Appropriateness of Inputs	Was the dispatch of Japanese experts appropriate in terms of number, expertise, length and timing of their assignment?	Result of dispatch of Japanese experts Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
		Was the provision of equipment from Japanese side appropriate in terms of types, quantity and timing of procurement?	List of procured equipment Opinion from stakeholders		
		Has the local cost support by the Japanese	Situation of C/P assignment		

		side been appropriate in terms of amount, use, and timing of disbursement?	Opinion from stakeholders		
		Has the assignment of C/P staff and core farmers been appropriate in terms of number, position and competency?	Result of local cost Opinion from stakeholders		
		Have the local cost allocated to the Nigerian implementing organization (NWRI, RWSSC) been appropriate in terms of amount, use, and timing of disbursement?	Result of local cost Opinion from stakeholders of NWRI, RWSSC		
Cost	Comparing to the similar projects (cooperation conducted by the JICA project and other donors), the Output and the Project Purpose are commensurate with the input costs?		Project budget Budget of similar project Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Were the local resources utilized effectively?	Were the existing organizations or facilities utilized effectively? Were the results of previous similar projects utilized effectively?	Project reports Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Factors which affect the effectiveness of implementing process of the Project		Were there any causes which obstruct the effectiveness of the project		
Impact	The Prospect of the Overall Goal Achievement	Is the Overall Goal expected to be achieved?	Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey
		Is the achievement of the Overall Goal expected to influence the development policy of the sector?			
		<p>【Important assumption】The trainees who participated to the Training at RWSSC remain working at his workplace.</p> <p>【Important assumption】The budget for the RWSS at the specific States which receive the Grant aid Project will not be reduced compared with the one before the</p>	Current condition of trainee after the RWSSC trainings Budget condition of RWSS at the specific States which receive the Grant aid Project	- Result of interviews with FMWR and NPC	

A2-38

	participation to the Training.			
	Is there other factor to inhibit the achievement of the Overall Goal?	Existence of inhibiting factors		
Causal relationship	Isn't there significant gap between the Overall Goal and the Project purpose? Does the achievement of the Project purpose contribute the achievement of the Overall Goal?	Causal relationship between the Overall Goal and the Project purpose		
Ripple effect	Is there other positive or negative effect except the Overall Goal?	Opinion from stakeholders		
Sustainability (prospect)	Policy, Institutional Aspect	Does current policy of Nigerian government on rural water supply and sanitation continue after termination of the cooperation? Policy, Strategy, Law and Ministerial ordinance Whether counter measures have been examined to increase participants for the training from each state Whether counter measures have been examined to promote to increase participants for the training by utilizing funds from private sector and other donors.	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side - Result of interviews with FMWR and NPC 	<ul style="list-style-type: none"> - Document survey - Interview - Questionnaire survey
	Organizational Aspect	Are there organizational capacities in NWRI and RWSSC to maintain the output and the activities (appropriate number of staff assignment and capacities of staff) after the technical cooperation terminates? Organizational structure Opinion from stakeholders System of human resource trainings (Whether there is a policy of securing and training trainers of next generation.) System of implementing trainings (Whether advance understanding of the number of participants for trainings, pre-judgment of carrying out or not carrying out trainings, logistics and administration etc. will be improved)	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side - Result of interviews with NWRI and FMWR 	
	Financial Aspect	Will necessary financial source be secured to continue project activities in NWRI and RWSSC? Will current system of budget allocation continue? Financial condition Source of revenue Opinion from stakeholders of NWRI, FMWR and NPC		

A2-39

Technical Aspect	Will transferred technics be sustained by C/Ps?	Opinion from stakeholders	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps
	Will the contents of the trainings be likely to be improved after the Project?		
	Will the maintenance of facilities and equipment be made properly?	Opinion from stakeholders	
Social, Cultural and Environmental Aspect	Is there any factor to inhibit the sustainability on Social, Cultural and Environmental aspects?	Opinion from stakeholders	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps

Annex 4: Summary of Inputs to the Project

1. Japanese Side

(1) List and Assignment Terms of Japanese Experts

1) 1st year (March 2010 to February 2011)

Name	Field in Charge	Assignment Term (M/M)	
1 Dr. Kenji YOSHIDA	Chief Advisor/Rural Water Supply/Organization Management	March-April 2010 June-July 2010 October-November 2010 January-February 2011	5.10
2 Mr. Nobuyuki IJIMA	Hydrogeology/Groundwater Development	March-May 2010 September-October 2010 January-February 2010	5.60
3 Mr. Yasuo ONOZUKA	Drilling Technology	September-October 2010 January-February 2010	3.00
4 Mr. Yasuji TAKAHASHI	Borehole Rehabilitation and Maintenance	June-August 2010 January-February 2010	3.00
5 Mr. Tsuguo ISHIKAWA	Geophysical Exploration/Analysis	June-August 2010 January-February 2010	3.00
6 Mr. Hiroaki OKADA	Drilling Machinery Maintenance	June-August 2010 January-February 2010	3.00
7 Ms. Megumi KANEDA	Rural Development/Community Mobilization and Sanitation	September-October 2010 January-February 2010	3.00
8 Mr. Tetsuo YAZU	Procurement Supervision and Plan	November-December 2010	1.0
Total M/M			26.7

2) 2nd year (April 2011 to March 2012)

Name	Field in Charge	Assignment Term (M/M)	
1 Dr. Kenji YOSHIDA	Chief Advisor/Rural Water Supply/Organization Management	July-August 2011 September-October 2011 November-December 2011 January-March 2011	6.27
2 Mr. Nobuyuki IJIMA	Hydrogeology/Groundwater Development	September-October 2011	1.50
4 Mr. Yasuji TAKAHASHI	Borehole Rehabilitation and Maintenance	July-August 2011	1.13
5 Mr. Tsuguo ISHIKAWA	Geophysical Exploration/Analysis	September-October 2011	1.00
7 Ms. Megumi KANEDA	Rural Development/Community Mobilization and Sanitation	November-December 2011	1.00
8 Mr. Hisashi OURA	Publicity Works	September-October 2011	1.37
Total M/M			12.27

3) 3rd year (January 2013 to December 2013)

Name		Field in Charge	Assignment Term (M/M)	
1	Dr. Kenji YOSHIDA	Chief Advisor/Rural Water Supply/Organization Management	February-March 2013 April-May 2013 June-August 2013 October-November 2013	7.00
2	Mr. Takashi NAMEKAWA	Drilling Technology	April-May 2013	0.90
3	Mr. Tsuguo ISHIKAWA	Geophysical Exploration/Analysis	April-May 2013 October-November 2013	2.50
4	Mr. Satoru MURATA	Drilling Machinery Maintenance 2	July-August 2013	1.50
Total M/M				11.90

4) 4th year (April 2013 to May 2014)

Name		Field in Charge	Assignment Term (M/M)	
1	Dr. Kenji YOSHIDA	Chief Advisor/Rural Water Supply/Organization Management	July-March 2014 April-May 2014 May-July 2014 August-September 2014 October-November 2014	7.00
2	Mr. Nobuyuki IJIMA	Hydrogeology/Groundwater Development	August-September 2014	1.00
3	Mr. Hisashi OURA	Publicity Works	June-July 2014 October-November 2014	2.50
Total M/M				10.50

(2) List of Equipment Procured in Japan for the Project

Item	Qty.	Value (JPY)	Location
Drilling rigs and tools	1	54,081,800	NWRI yard
High pressure compressor	1	23,760,000	NWRI yard
Drill bit	1	3,443,200	NWRI store
Water tank truck	1	14,190,000	NWRI yard
Crane truck	1	14,300,000	NWRI yard
Simple mud tank	1	292,500	NWRI store
Bore-hole camera	1	2,215,500	Project office
Repair tool	1	294,700	Usuma dam store
Logging equipment	1	2,116,400	NWRI store
Electric exploitation equipment	1	6,436,000	NWRI store
Electromagnetic exploitation equipment	1	15,705,500	NWRI store
Submersible pump	1	786,100	Usuma dam store
Generator	1	616,200	NWRI store
V-notch	1	288,800	NWRI store
Water level indicator	1	44,100	Usuma dam store
Water quality analyzer	1	374,400	Usuma dam store
Aquifer test analysis software	1	218,400	Project office
Groundwater analysis software	1	680,300	Project office

(3) List of Equipment procured locally

Item	Qty.	Value (JPY)	Location
Copier	1	95,170	Project office
Printer	1	25,788	Project office
Note PC	5	340,600	Project office
Pick-up truck	1	4,989,800	Project office

(4) Financial Support for Local Expense

Expenditure Item	Expense by Fiscal Year (JPY)			
	2010	2011	2013	2014
Local labor cost	107,164	622,149	392,915	765,813
Office supplies	83,349	10,573	3,708	
Printing		114,478		
Rent car and maintenance of project car	3,000,235	647,411	1,123,115	963,615
Allowance of CP at Usuma dam			824,355	447,115
Sundry expenses	119,265	188,793	120,668	233,235
Sub-Total	3,310,013	1,583,404	2,344,214	2,409,778
Total	9,647,409			

2. Nigerian Side

(1) Assignment of Counterpart Officers

	Name	Affiliation & Position	Role in the Project	Term
1	Eng. Augustine N. Egbulem	NWRI Acting director	Project director	2010-Present
2	Dr. Martin O. Eduvie	NWRI	Project manager	2010-Present
3	Mr. S. G. Sara	NWRI Principal lecturer	Coordinator (Hand pump)	2010-Present
4	Mr. Omogbemi O. Yaya	NWRI Principal lecturer	Coordinator (Groundwater)	2010-Present
5	Mr. O. T. Olabode	NWRI Principal lecturer	Coordinator (Drilling)	2010-Present
6	Mr. Julius Onemano	NWRI Principal lecturer	Coordinator (Alternative water source)	2010-2012
7	Mrs. B. O Dossah	NWRI Principal lecturer	Coordinator (Community development)	2010-2012
8	Mr. Asmed Salisu Hassan	NWRI Principal lecturer	Coordinator (Sanitary and hygiene)	2010-2012
9	Mr. S. D. Asmed	NWRI Principal lecturer	Coordinator (Capacity assessment)	2010-2012
10	Mr. A. T. Garba	NWRI Principal lecturer	Coordinator (Information and	2010-2012

			document(s)	
11	Mr. Ibrahim Joshua Doh	NWRI	Administration staff	2010-2012
12	Mr. Abba Othman Ibrahim	NWRI	Accounting staff	2010-2012

(2) Financial Support for Local Expense

	Expense by Fiscal Year (1,000NGN)					
	2009	2010	2011	2012	2013	2014
Budget	33,252.7	10,642.5	15,113.3	15,925.0	25,925.0	7,600.0
Total	108,458.5					

Annex 5: List of trainings

1. Open seminars and workshops

(1) Year 2011

Name of Courses	Date		Number of participants
	From	To	
Borehole Rehabilitation and Maintenance	11-Jul	15-Jul	15
Community Mobilizations and Management	11-Jul	15-Jul	14
Hand pump Installation, Operation and Maintenance	18-Jul	23-Jul	30
Hygiene and Sanitation Promotion	25-Jul	29-Jul	14
Groundwater Investigation Techniques	26-Sep	30-Sep	9
Borehole Construction Management	26-Sep	1-Oct	14
Hand pump Installation, Operation and Maintenance	17-Oct	21-Oct	14
Borehole Rehabilitation and Maintenance	12-Dec	16-Dec	18
Hygiene and Sanitation Promotion	21-Nov	25-Nov	16
Community Mobilizations and Management	28-Nov	2-Dec	16

(2) Year 2012

Name of Courses	Date		Number of participants
	From	To	
Borehole Construction Management	13-Feb	18-Feb	25

(3) Year 2013

Name of Courses	Date		Number of participants
	From	To	
Groundwater Investigation Techniques	22-Apr	26-Apr	18
Borehole Construction Management	6-May	10-May	20
Drilling Technology	15-May	26-May	20
Drilling Machinery Maintenance	8-Jul	11-Jul	20
Groundwater Investigation Techniques	28-Oct	1-Nov	20

(4) Year 2014

Name of Courses	Date		Number of participants
	From	To	
Borehole Construction Management	10-Feb	14-Feb	18
Drilling Machinery Maintenance	17-Feb	21-Feb	19
Drilling Technology	3-Mar	13-Mar	22
Drilling Technology	9-Jun	14-Jun	10
Groundwater Investigation Techniques	25-Aug	29-Aug	26
Borehole Construction Management	25-Aug	29-Aug	27

添付資料 3: 評価グリッド

Project for Enhancing the Function of Rural Water Supply and Sanitation Centre (RWSSC) for Capacity Development in National Water Resources Institute (NWRI)
Verification of Achievement Level

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Input provided	Japanese side 1. Dispatch of Japanese Experts 2. Equipment 3. Financial support for local cost	Are the quantity, quality and timing of input as planned?	Quantity, quality and timing of input	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Nigerian side 1. Counterpart (C/P) 2. Facilities and utilities provided 3. Financial support				
Achievement level of Outputs	Output 1: Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.	Is VI ¹ 1-1 “Capacity Assessment Reports are made in the first year of project and revised by the end of the Project.” likely to be achieved?	Result of Impact survey conducted in fourth year Draft of modified capacity assessment report	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 1-2 “RWSS stakeholders including ESAs share the identified capacity gaps of RWSS stakeholders.” likely to be achieved?	Current distributing condition of Capacity Assessment Reports Implementing plan of final seminar		
	Output 2: Responsive and effective training system (Modules, materials, and facilities, etc) is developed.	Is VI 2-1 “Revised and newly developed training materials including manuals are utilized in trainings according to Training Modules and Programme by September 2010.” likely to be achieved?	Current condition of utilization of training materials (Quality and frequency of use)	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Result of questionnaire survey and interviews with C/Ps	- Document survey - Interview - Questionnaire survey
		Is VI 2-2 “Facilities and equipment are maintained and arranged for trainings and training Programme.” likely to be achieved?	Result of survey on current condition and operation and maintenance system on necessary equipment for trainings by Nigerian side		
	Output 3 : Trainer’s capacity in RWSS is enhanced.	Is VI 3-1 “More than 80% of trainees evaluate the trainers as "good"." likely to be achieved?	Result of answered questionnaire	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Result of questionnaire survey for RWSSC	- Document survey - Interview - Questionnaire survey
		Is VI 3-2 “RWSSC managers and JICA experts judge Training of Trainer (ToT) receivers’ capacity in terms of knowledge,	Result of evaluation on ToT receivers’ capacity by RWSSC managers and JICA experts		

¹ VI: Verifiable Indicator

		attitude and skills are improved.” likely to be achieved?		manager	
	Output 4: Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.	Is VI 4-1 “M&E are conducted on Training activities, Modules, Programme, Materials, Facilities and Equipment arrangement, Trainers and Trainees according to the M&E plan.” likely to be achieved?	Implementation level of M&E plan	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 4-2 “Revising procedure was taken as scheduled from the 2012 year's training cycle.” likely to be achieved?	Reflection level of revising procedure on training system Recording condition in annual report of NWRI		
	Output 5 : Management of RWSSC is improved.	Is VI 5-1 “Logistics and administrative matters are conducted according to the manual/work plan by March 2013.” likely to be achieved?	Current implementing condition on processing of logistics and administrative matters according to the manual/work plan	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 5-2 “More than 10 States are informed of the contents and period of Training at RWSSC.” likely to be achieved?	Number of States where RWSSC have been informed the contents and the period of Training Recognizing condition of target states	- Result of questionnaire survey and interviews with project manager	
Achievement level of Project Purpose	Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.	Is VI 1 “The evaluation result by the trainee at the end of the Project is increased compared with the ones at the beginning of the Project.” likely to be achieved?	Result of evaluation by the trainee on trainings	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 2 “350 RWSS staff will attend RWSSC trainings in total by the end of the Project.” likely to be achieved?	Number of RWSS staffs who have attended trainings at RWSSC (including Usma FCT, Abuja)		
Achievement level of Overall Goal	Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.	Is VI 1 “The rate of functional rural water supply facilities is increased compared with the ones before the participation to the Training at RWSSC in the specific States which received the Grant Aid Project.” likely to be achieved?	The rate of functional rural water supply facilities which have been constructed by utilizing equipment procured by Japan’s grant aid projects.	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
Precondition		Is the precondition “The building of RWSSC is completed and the staff and budget are allocated.” fulfilled?	Current condition of facilities and building of RWSSC, current condition of arrangement on staff and budget	- Project reports - Result of questionnaire survey and interviews with Japanese experts and the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey

Verification of Implementation Process

Items of Evaluation	Evaluation Question	Necessary Data	Source	Acquisition Means
Method of technical transfer	Has the technical transfer properly been made to C/P?	Result of activities Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
Relation between stakeholders	Have regular meetings and JCC between the Nigerian C/Ps and Japanese Experts sufficiently contributed to solving problems that occurred in the implementation process?	Opinion from stakeholders	- Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Have the Nigerian C/Ps and Japanese Experts adequately communicated with each other to share information regarding the project management and activities?			
	Are proper system of command chain and clear demarcated structure established for the project management?			
Ownership of the Project	Have the Nigerian staffs (project manager and C/Ps of NWRI) adequately participated in project management and activities?	Result of activities Opinion from stakeholders of NWRI	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Has the Nigerian Government (NWRI) allocated and spent sufficient budget for the Project activities?	Financial condition Opinion from stakeholders of NWRI	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Does the Nigerian Government (Federal Ministry of Agriculture and Water Resource (FMWR) and National Planning Commission (NPC)) understand the contents of the Project well?	Level of understanding on the contents of the Project by stakeholders of FMWR and NPC	- Result of interviews with the project manager of Nigerian side - Result of interviews with FMWR and NPC	- Interview
Collaboration with Other Projects	Has the Project adequately collaborated with other projects implemented either by JICA or other donors?	Contents of collaboration with other donors Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews	- Document survey - Interview - Questionnaire survey

			with Japanese experts, the project manager of Nigerian side	
Factors affecting the Implementation Process	Have restructuring of implementing organizations or reshuffling of the Project Manager and C/Ps affected the implementation of the Project?	Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
	Are there unpredictable factors which have adversely affected the Project implementation process?			

Evaluation based on Five Evaluation Criteria

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Relevance	Necessity	Is the Project Purpose and the needs of Nigerian side (target group) corresponded?	Development plan Related documents Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey
		Is the Project Purpose corresponded with the needs of target area and social situation?	Sector development plan Opinion from stakeholders		
	Priority	Are the Overall Goal and the Project Purpose consistent with the National Development Plan, Sector development plan, other relevant policies?	Documents concerning the policy of the sector Opinion from stakeholders	- Japan's aid policy	- Document survey
		Is the project objective consistent with Japan's aid policy and country cooperation plan of JICA?	Aid policy of Japan		
	Suitability as a Means	Is the Project's approach was appropriate.	Result of project activities	- Result of questionnaire survey and interviews with Japanese experts	- Interview - Questionnaire survey
		What kind of synergy has been with other donors?	Result of project implemented by other donors Opinion from stakeholders		
		Is the selection of target groups appropriate?	Opinion from stakeholders		
		Is the benefit of the effect to C/P and participants of trainings or the burden of the cost between Nigerian side and Japanese side distributed fairly?	Result of project activities Opinion from stakeholders		
		Is the experience of technical cooperation projects of JICA utilized?	Experience of similar project Opinion from stakeholders		
		Is the experience of Japan utilized?	Advantage of Japan's experience Opinion from stakeholders		
Others	Is there any change on the environment (policy, economy and society) surrounding	Opinion from stakeholders			

		the project?			
Effectiveness	Achievement level of Project Purpose(Forecast)	Is the Project Purpose likely to be achieved?	Project reports Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is the setting up of indicators of Project Purpose appropriate?			
	Causal Relations	Are outputs of the project contributed to achieve the project objective? (Achievement of project outputs has been caused by the Outputs.)	Project reports Opinion from stakeholders		
		【Important assumption】 Governments and other stakeholders continue to send RWSS staff for trainings.	Project reports Opinion from stakeholders		
		Is there other important assumption?			
What are the inhibiting or contributing factors to achieve the Project Purpose?					
Efficiency	Achievement of output	Is the Output likely to be achieved as planned by adequate activities? If not, what is the inhibiting factor?	Achievement level and time of the Output Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		It the indicators for each Output level appropriate?	Achievement level Causal relation with Project Purpose		
	Appropriateness of Inputs	Was the dispatch of Japanese experts appropriate in terms of number, expertise, length and timing of their assignment?	Result of dispatch of Japanese experts Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps	- Document survey - Interview - Questionnaire survey
		Was the provision of equipment from Japanese side appropriate in terms of types, quantity and timing of procurement?	List of procured equipment Opinion from stakeholders		
		Has the local cost support by the Japanese side been appropriate in terms of amount, use, and timing of disbursement?	Situation of C/P assignment Opinion from stakeholders		
		Has the assignment of C/P staff and core farmers been appropriate in terms of number, position and competency?	Result of local cost Opinion from stakeholders		
		Have the local cost allocated to the Nigerian implementing organization (NWRI, RWSSC) been appropriate in terms of amount, use, and timing of disbursement?	Result of local cost Opinion from stakeholders of NWRI, RWSSC		
	Cost	Comparing to the similar projects (cooperation conducted by the JICA project and other donors), the Output and the Project Purpose are commensurate with the input costs?	Project budget Budget of similar project Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey

		Were the local resources utilized effectively?	Were the existing organizations or facilities utilized effectively?	Project reports Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
			Were the results of previous similar projects utilized effectively?			
	Factors which affect the effectiveness of implementing process of the Project	Were there any causes which obstruct the effectiveness of the project				
Impact	The Prospect of the Overall Goal Achievement	Is the Overall Goal expected to be achieved?		Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Nigerian side - Result of interviews with FMWR and NPC	- Document survey - Interview - Questionnaire survey
		Is the achievement of the Overall Goal expected to influence the development policy of the sector?				
		【Important assumption】The trainees who participated to the Training at RWSSC remain working at his workplace. 【Important assumption】The budget for the RWSS at the specific States which receive the Grant aid Project will not be reduced compared with the one before the participation to the Training.	Current condition of trainee after the RWSSC trainings Budget condition of RWSS at the specific States which receive the Grant aid Project			
	Is there other factor to inhibit the achievement of the Overall Goal?	Existence of inhibiting factors				
	Causal relationship	Isn't there significant gap between the Overall Goal and the Project purpose? Does the achievement of the Project purpose contribute the achievement of the Overall Goal?	Causal relationship between the Overall Goal and the Project purpose			
Ripple effect	Is there other positive or negative effect except the Overall Goal?	Opinion from stakeholders				
Sustainability (prospect)	Policy, Institutional Aspect	Does current policy of Nigerian government on rural water supply and sanitation continue after termination of the cooperation?	Policy, Strategy, Low and Ministerial ordinance Whether counter measures have been examined to increase participants for the training from each state Whether counter measures have been examined to promote to increase	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side	- Document survey - Interview - Questionnaire survey	

			participants for the training by utilizing funds from private sector and other donors.	- Result of interviews with FMWR and NPC
Organizational Aspect	Are there organizational capacities in NWRI and RWSSC to maintain the output and the activities (appropriate number of staff assignment and capacities of staff) after the technical cooperation terminates?	Organizational structure Opinion from stakeholders System of human resource trainings (Whether there is a policy of securing and training trainers of next generation.) System of implementing trainings (Whether advance understanding of the number of participants for trainings, pre-judgment of carrying out or not carrying out trainings, logistics and administration etc. will be improved)		- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side - Result of interviews with NWRI and FMWR
Financial Aspect	Will necessary financial source be secured to continue project activities in NWRI and RWSSC? Will current system of budget allocation continue?	Financial condition Source of revenue Opinion from stakeholders of NWRI, FMWR and NPC		
Technical Aspect	Will transferred technics be sustained by C/Ps?	Opinion from stakeholders		- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps
	Will the contents of the trainings be likely to be improved after the Project?			
	Will the maintenance of facilities and equipment be made properly?	Opinion from stakeholders		
Social, Cultural and Environmental Aspect	Is there any factor to inhibit the sustainability on Social, Cultural and Environmental aspects?	Opinion from stakeholders		- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Nigerian side and C/Ps

Project Name : Project for Enhancing the Function of RWSSC in NWRI (RWSSC Project)

Target Group : RWSSC-NWRI, Kaduna

Duration : March, 2010~November, 2014

PDM Ver. 3.0

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal			
Service Delivery of RWSS is improved in Nigeria through Capacity Development of stakeholders.	1. The rate of functional rural water supply facilities is increased compared with the ones before the participation to the Training at RWSSC in the specific States which received the Grant Aid Project.	1. National Statistics Office / Statistic Data at RUWASSA	
Project Purpose			
Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC) is effectively operated.	1. The evaluation result by the trainee at the end of the Project is increased compared with the ones at the beginning of the Project. 2. 350 RWSS staff will attend RWSSC trainings in total by the end of the Project.	1. Training participants evaluation results 2. Training participants Database	<i>The trainees who participated to the Training at RWSSC remain working at his workplace.</i> <i>The budget for the RWSS at the specific States which receive the Grant aid Project will not be reduced compared with the one before the participation to the Training.</i>
Outputs			
1. Capacity Gaps of RWSSC (NWRI) and RWSS stakeholders at States, LGAs and Community levels are identified.	1.1 Capacity Assessment Reports are made in the first year of project and revised by the end of the Project. 1.2 RWSS stakeholders including ESAs share the identified capacity gaps of RWSS stakeholders.	1.1 Capacity Assessment Report 1.2 Workshop reports	Governments and other stakeholders continue to send RWSS staff for trainings.
2. Responsive and effective training system (Modules, materials, and facilities, etc.) is developed.	2.1 Revised and newly developed training materials including manuals are utilized in trainings according to Training Modules and Programme by September 2010. 2.2 Facilities and equipment are maintained and arranged for trainings and training Programme.	2.1 Training Modules and Programmes, Annual Training Action Plan, Revised /developed training materials 2.2 Facilities and equipment list	
3. Trainers capacity in RWSS is enhanced.	3.1 More than 80% of trainees evaluate the trainers as "good". 3.2 RWSSC managers and JICA experts judge ToT receivers' capacity in terms of knowledge, attitude and skills are improved.	3.1 Trainees evaluation, Check list 3.2 Supervisors' evaluation, Reports of ToT Trainings, Check list, Annual Training Implementation Reports (2011, 2012, 2013),	
4. Trainings are reviewed based on a Plan-Do-Check-Act (PDCA) cycle.	4.1 M&E are conducted on Training activities, Modules, Programme, Materials, Facilities and Equipment arrangement, Trainers and Trainees according to the M&E plan. 4.2 Revising procedure was taken as scheduled from the 2012 year's training cycle.	4.1 M&E plan, M&E report 4.2 Annual Training Implementation Reports (2011, 2012, 2013),	
5. Management of RWSSC is improved.	5.1 Logistics and administrative matters are conducted according to the manual/work plan by March 2013. 5.2 More than 10 States are informed of the contents and period of Training at RWSSC.	5.1 Logistics and administrative manuals/work plans, Job description, Database of trainers, trainees, Questionnaire survey to the administration staff 5.2 Questionnaire survey to the States	

Activities	Inputs	
	Japan	Federal Republic of Nigeria
1.1 Determine capacity assessment procedures and selection of target institutions (National, State, LGA and Community levels).	<p><u>Personnel</u></p> <ul style="list-style-type: none"> - Chief Advisor / Rural Water Supply / Operation Management - Hydrogeology / Groundwater Development - Well Drilling Technology / Drilling Machine - Well Development / Water Supply Facilities / Well Rehabilitation - Geophysical Survey / Survey Analysis - Mechanical Equipment / Operation and Maintenance - Community Mobilization/ Sanitation & Hygiene Promotion - Procurement Management <p><u>Training</u></p> <p>In Japan and/or in third countries as per required</p> <p><u>Equipment</u></p> <ul style="list-style-type: none"> - Training rig and related equipment - Well rehabilitation equipment - Geophysical prospecting equipment - Pumping test equipment - Monitoring equipment - Computers - Vehicles - Office utilities 	<p><u>Personnel</u></p> <ul style="list-style-type: none"> - Project Director <p><u>Counterparts at working level</u></p> <ul style="list-style-type: none"> - Project Manager - Coordinator (Handpump) - Coordinator (Groundwater) - Coordinator (Capacity Assessment) - Coordinator (Drilling) - Coordinator (Information & Doc.) - Coordinator (Altr. WS) - Coordinator (Comm. Dev.) - Coordinator (Sant. & Hyge.) <p><u>Office staff</u></p> <ul style="list-style-type: none"> - Administrative Officer - Finance Officer - Secretary/Typist - Clerical officer <p><u>Technical assistant</u></p> <ul style="list-style-type: none"> - System Analyst - Driller - Driller - Mechanic <p><u>Facility, equipment and services</u></p> <ul style="list-style-type: none"> - Project office, meeting room and necessary facilities for the Experts including those in Federal Capital Territory to be used after third year of the Project - Facilities and services such as supply of electric power, desks, chairs, shelves, telephone line, internet connection necessary for the Project activities including those in Federal Capital Territory to be used after third year of the Project - Other facilities mutually agreed on as appropriate.
1.2 Conduct capacity assessment of sampled institutions and produce reports.		
1.3 Organize stakeholders workshop to present and improve the assessment reports.		
1.4 Disseminate the reports to major stakeholders.		
2.1 Formulate training strategy for RWSSC and create RWSSC mission report.		
2.2 Review and Formulate Training Programmes, Courses and Modules required as a result of the capacity assessment.		
2.3 Review and revise existing training materials.		
2.4 Develop training materials for the newly developed courses.		
2.5 Inventorize and procure required facilities and equipment.		
2.6 Produce users manuals of facilities and equipment.		
2.7 Provide On-the- Job- Training (OJT) to Users on facilities and equipment handling, operation and maintenance.		
3.1 Identify relevant trainers (qualification, skills, role, workload, etc.).		
3.2 Formulate Training of Trainers (ToT) programme.		
3.3 Make ToT materials.		
3.4 Implement ToT programme.(Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)		
3.5 Evaluate ToT programme and its implementation.(Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)		
3.6 Develop and maintain database of trainers.		

Activities	Inputs		
	Japan	Federal Republic of Nigeria	
4.1 Develop a M&E Plan for the training courses, Modules, materials, trainees and resource persons/facilitators. .(Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)			
4.2 Prepare and deliver trainings of stakeholders at States, LGA and Community levels.(Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)		<u>Local Cost</u>	
4.3 Conduct M&E on the training Modules, materials, resource persons/facilitators and trainees as planned and revise them as necessary. (Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)			
4.4 Revise M&E Plan as necessary.(Course 1-4 until the end of Project, Course 4 -9 for the first two years of Project)			
5.1 Publicize RWSSC's mandate/mission, objectives, functions and strategies to all stakeholders (including the Private sector) for first two years of Project.			Pre-conditions
5.2 Develop logistics and administrative manuals/work plans (budget, account, human & materials resources, training advertisement and "5S", etc.) for first two years of Project..			The building of RWSSC is completed and the staff and budget are allocated.
5.3 Assign clear job description to each RWSSC staff for first two years of Project..			
5.4 Deliver appropriate management training to RWSSC staff for first two years of Project..			
5.5 Provide adequate enabling environment (office space, equipment stationeries and transportation, etc.) for RWSSC for first two years of Project..			
5.6 Collate database of trainers, trainees and trainings conducted.			
5.7 Propose to the Federal Ministry of Water Resources to allocate C/P funding to the Project.			