ブラジル連邦共和国 ジャラポン地域生態系コリドー プロジェクト終了時評価報告書

平成 25 年 4 月 (2013 年)

独立行政法人国際協力機構 ブラジル事務所 ブラ事 JR 13-002

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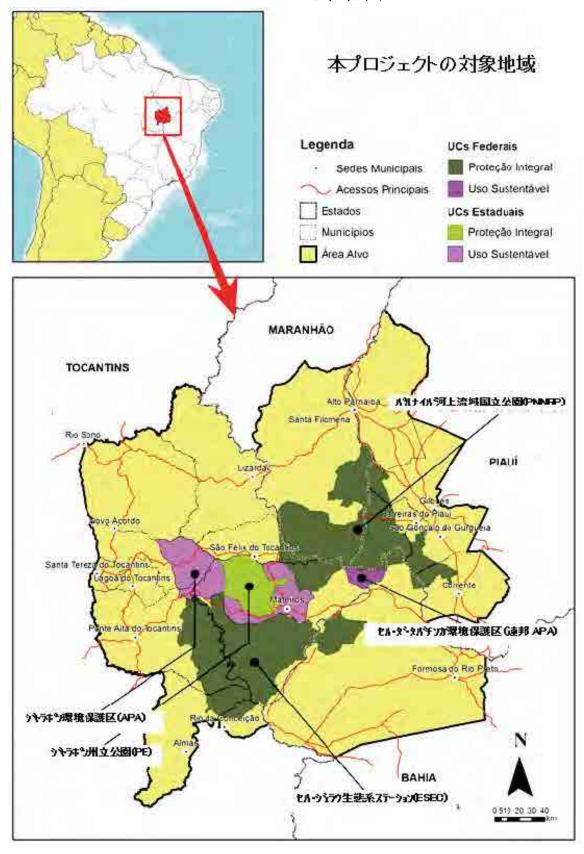
略 語 表

| ABC | Agência Brasileira de Cooperação ブラジル国際協力庁 |
|----------|---|
| ALOS | Advanced Land Observing Satellite 陸域観測技術衛星「だいち」 |
| APA | Área de Proteção Ambiental 環境保護区 |
| ASAS | Agentes de Sensibilização Ambiental 環境啓蒙普及員(環境教育教員研修「ジャラポンの翼」) |
| BMU | Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit ドイツ環境・自然及び原子力安全省 |
| CAOMA | Centro de Apoio Operacional do Meio Ambiente (国家検察庁)環境運営支援センター |
| CEIT | Centro de Exposição e Informação Turistica 観光展示・情報センター |
| CERJ | Projeto Corredor Ecológico da Região do Japalão ジャラポン地域生態系コリドープロジェクト |
| CEULP | Centro Universitario Luterano de Palmas ルーテル大学パルマス校 |
| CGCAP | Coordenação Geral de Criação, Planejamento e Avaliação de Unidades de Conservação 保護区設置・計画・評価調整部(ICMBio) |
| COEMA | Conselho Estadual de Meio Ambiente 州環境審議会 |
| COMATUR | Conselho Municipal de Meio Ambiênte e Turismo 市環境・観光審議会 |
| COMTURMA | Conselho Municipal de Turismo e Meio Ambiênte 市観光・環境審議会 |
| DIMAN | Diretoria de Criação e Manejo de Unidades de Conservação 保護区設置運営局(ICMBio) |
| DMOC | Divisão de Mosaicos e Corredores モザイク・生態系コリドー課(ICMBio) |
| EE | Estação Ecológica 生態系ステーション |
| EESGT | Estação Ecológica da Serra Geral do Tocantins セハ・ジェラウ生態系ステーション |
| GEF | Global Environment Facility 地球環境基金 |
| GIS/GPS | Geographic Information System / Global Positioning System 地理情報システム/全地球測位システム |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit ドイツ国際協力庁 |
| IBAMA | Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis ブラジル環境・再生可能天然資源院 |
| ICMBio | Instituto Chico Mendes de Conservação da Biodiversidade シコメンデス生物多様性保全院 |
| ICMS | Imposto sobre a Circulação de Mercadorias e Serviços 商品・サービス流通税(環境保全交付金) |

| INCRA | Instituto Nacional de Colonização e Reforma Agrária ブラジル農地改革院 |
|------------|---|
| INEMA | Instituto do Meio Ambiente e Recursos Hídricos da Bahia バイア州環境・水資源庁 |
| JAXA | Japan Aerospace Exploration Agency (日本)宇宙航空研究開発機構 |
| JCC | Joint Coordinating Committee 合同調整委員会 |
| JET | Japanese Expert Team 日本側専門家チーム |
| JICA | Japan International Cooperation Agency 国際協力機構 |
| JREC | Jalapão Region Ecological Corridor ジャラポン地域生態系コリドー |
| LULUCF | Land Use, Land-Use Change and Forestry 土地利用、土地利用変化及び林業部門 |
| M/M | Minutes of Meeting 協議議事録 |
| MMA | Ministério do Meio Ambiente (ブラジル)環境省 |
| MONA | Monumento Natural 自然遺跡 |
| NATURATINS | Instituto Natureza do Tocantins トカンチンス州環境公社 |
| OECD-DAC | Organization for Economic Cooperation and Development — Development Assistance Committee 経済協力開発機構 - 開発援助委員会 |
| PDM | Project Design Matrix プロジェクト・デザイン・マトリックス |
| PEGAM | Programa Estadual de Gestão Ambiental Municipal (トカンチンス州)市環境管理プログラム |
| PEJ | Parque Estadual do Jalapão ジャラポン州立公園 |
| PN | Parque National 国立公園 |
| PNNRP | Parque Nacional das Nascentes do Rio Parnaíba パルナイバ河上流域国立公園 |
| PO | Plan of Operation 活動計画 |
| R/D | Record of Discussion 討議議事録 |
| RPPN | Reserva Particular do Patrimônio Natural 民有地自然保護区 |
| SEMA | Secretaria de Meio Ambiente do Estado da Bahia バイア州環境局 |
| SEMADES | Secretaria de Meio Ambiente e Desenvolvimento Sustentável do Estado do Tocantins トカンチンス州環境・持続的開発局 |
| SEPLAN | Secretaria do Planejamento e Modernização da Gestão Pública do Estato do Tocantins |

| | トカンチンス州計画・公営部門近代化局 | |
|------|---|--|
| SMUC | Sistema Municipal de Unidades de Conservação 市環境保護区システム法 | |
| SNUC | Sistema Nacional de Unidades de Conservação 国家環境保護区システム法 | |

プロジェクト位置図





環境省における調査結果報告



リオ・ダ・コンセイシオンの環境審議会メンバーヒアリング



セハ・ジェラウ生態系ステーション(中間レビュー時撮影)

終了時評価調查結果要約表

| 1. 案件の概要 | |
|---------------------------|----------------------------------|
| 国名:ブラジル連邦共和国 | 案件名: ジャラポン地域生態系コリドープロジェクト |
| 分野 :自然環境保全・生物多様性保全 | 協力形態:技術協力プロジェクト |
| 所轄部署:JICA ブラジル事務所 | 協力金額(評価時点): 3.5 億円(見込額。評価時にお |
| | ける計画額も含む。) |
| 協力期間:2010年4月~2013年4月 | 先方実施機関: シコメンデス生物多様性保全院 |
| 日本側協力機関: | (ICMBio) |

1-1 協力の背景と概要

「セラード」と呼ばれるブラジル連邦共和国(以下、「ブラジル」と記す)中西部を中心に分布する熱帯サバンナ植生帯は、極めて生物多様性の豊かな地域であるが、同時に世界で最も生物多様性の喪失が危惧される地域の1つと言われている。同地域に位置するジャラポン地域は、アマゾンの熱帯林、カアチンガと呼ばれる半乾燥地域の有棘潅木疎林に代表される生態系とセラードとの移行地帯にあり、多様性に富む生態系が広がっている。

しかしながら、同地域の周辺では農業開発、放牧等が進んでおり、ブラジル政府は、ジャラポン地域の自然を保護するため、セハ・ジェラウ環境ステーション(EESGT)、パルナイバ河上流域国立公園(PNNRP)等を中心とする3つの自然保護区を設置している。また、トカンチンス州やバイア州政府も、同地域に合計4つの州立自然保護区¹を設置している。

これらの保護区の生態系保全機能を高めていくためには、保護区の間を生態系コリドーでつなぎ、保護区とコリドーを合わせた地域全体を、戦略性を持って協調しながら管理していくことが求められている。これを実現していくためには、連邦、州、市の関係各機関や、NGO、市民団体等、様々な関係者による連携と協力が必要であるが、これをリードしていく立場にある連邦政府の自然保護区管理行政の所掌機関であるシコメンデス生物多様性保全院(ICMBio)は、組織と人員の両面におけるキャパシティ向上を必要としている。

このような背景から、ブラジル政府は、ICMBioの能力開発を図り、ジャラポン地域の自然を戦略的かつ関係者の協調の下に保全していく体制を構築するため、本プロジェクトによる支援をわが国に要請した。

これを受けて JICA は、2008 年 11 月に詳細計画策定調査団を派遣し、ブラジル側関係機関との協議を経てプロジェクトの基本計画を策定し、2009 年 11 月に本プロジェクトに係る討議議事録 (R/D) を署名した。その後、プロジェクトは、2010 年 4 月から 3 年間の予定で開始された。

1-2 協力内容

(1) 上位目標

生態系コリドー導入によりジャラポン地域の生態系保全が促進される。

(2) プロジェクト目標

ジャラポン地域で生態系コリドーを導入・実施するため、ICMBio の体制が強化される。

- (3) 成果
 - 1. 自然保護区のバッファーゾーンを含むジャラポン地域生態系コリドー (JREC) 実施に必要な情報が収集、分析、整理される。
 - 2. JREC 実施のための組織的な連携が構築される。
 - 3. JREC の実施に必要な ICMBio 職員及び関係機関職員の能力向上が実施される。
 - 4. JREC 保全に関する関係機関と地域住民との連携が強化される。
 - 5. JREC 保全のための戦略文書/ガイドラインが作成される。
- (4) 投入

(日本側)専門家派遣: 2010年4月~2013年4月で計7名52M/M

(評価実施時点以降の計画日数を含む)

本邦研修 : 2011年6月に3名(2012年11月にさらに3名を予定)

資機材供与:GIS データサーバー、GIS ソフト、リモートセンシングソフト、車両2台等

現地業務費:3年間7,719万円(2012年度は計画値。内訳は、現地スタッフ・現地コンサルタ

ント雇用、配布物・資料の作成、会議・ワークショップの開催、消耗品など)

(ブラジル側) カウンターパート: ICMBio ブラジリア本部(プロジェクトディレクター、プロジェクト

マネジャー他 2 名)、EESGT 事務所(4 名)、および PNNRP 事務所(2 名)の計 10 名。この他、州カウンターパート 2 として、トカンチンス州環境・持続的開発局 (SEMADES)、環境公社 (NATURATINS)、計画・公営部門近代化局 (SEPLAN)

の職員がプロジェクトに参加。

活動費: ICMBio の支出は、3年間272万レアル(2012年度は計画値。内訳は、車両の燃

[」]ジャラポン環境保護区、ジャラポン州立公園、リオ・プレト環境保護区、およびリオ・プレト生態系ステーション。

² R/D 上は ICMBio の職員だけがカウンターパートとされているが、トカンチンス州関係機関の職員はプロジェクトを実施していく上で重要な役割を果たしていることから「州カウンターパート」と位置付けられるようになった。

料費・メンテナンス費、雇用費、旅費、消耗品など)

(5) 対象地域

ブラジルジャラポン地域 (EESGT と PNNRP の間の地域)

2. レビュー調査団の概要

調査団構成

- 1. 佐藤一朗(日本側団長)JICA ブラジル事務所次長
- 2. 駒沢カズアキ (協力企画) JICA ブラジル事務所所員
- 3. 奥田浩之(評価分析)合同会社適材適所
- 4. 前田イウゼ (通訳)
- 5. Mr. Fernando Antonio Rodrigues Lima (プロジェクト評価) 環境省 (MMA) 自然保護区局
- 6. Mr. Frederico Dimas de Paiva(プロジェクト評価)ブラジル国際協力庁(ABC)2 国間協力調整プロジェクト分析官

調査期間

2012年10月14日~2012年11月3日

調查種類:終了時評価

3. 進捗の確認

3-1 プロジェクトの進捗と実績

- (1) 成果 1:達成(4つの指標が設定されており、プロジェクトは既にこれら4指標を達成している)
 - ・ ジャラポン地域の Web-GIS システムは、当初は ICMBio に設置されたが、2012 年 6 月にトカンチンス 州 SEPLAN のネットワークに移転された。現在 SEPLAN のホームページが、この Web-GIS システム へのポータルとなるよう変更が進められている。(指標 1.1 に対応)

http://corredorjalapao.seplan.to.gov.br/jalapao/

・ プロジェクトのホームページが ICMBio ホームページ内に構築され、情報の追加やニュースリリース、 ダウンロードのための出版物・地図の追加により、定期的に更新されている。(指標 1.2 に対応)

http://www.icmbio.gov.br/projetojalapao/

- ・ プロジェクトのパンフレット、ジャラポン地域アトラス、対象市で利用するためのプロジェクト紹介 バナー、環境パネル、環境教育のための読本、環境教育ビデオなど、様々な種類・形式の情報資料、 啓発資料が作成、配布された。(指標 1.3 及び指標 1.4 に対応)
- (2)成果2:達成(2つの指標が設定されており、プロジェクトは既にこれら2指標を達成している)
 - 「ジャラポン生態系コリドーの導入と実施に関する協力協定書 No.06/2011」の署名が、ICMBio 総裁、MMA 局長、SEMADES 局長、NATURATINS 総裁、SEPLAN 局長、トカンチンス州知事より、2011年9月29日に行われた。(指標 2.1 に対応)
 - ・ 協力協定書に基づき、2011 年 11 月以降 2012 年 8 月までの間に、関係機関の調整委員会が定期的に 4 回開催された。(指標 2.2 に対応)

以上に加えて、プロジェクトは、「ジャラポン・モザイク³」の設置を進めている。2012 年 8 月までに、モザイクを構成する連邦・州・市の計 9 つの保護区の管理者によりジャラポン・モザイクへの参加確認書の署名がなされ、さらに「ジャラポン・モザイク」設立に向けた提案書が作成され、2012 年 9 月に MMAに提出された。現在、MMA において、省令によるモザイクの認知に向けた検討が進められている。

- (3) 成果3:ほぼ達成(2つの指標が設定されており、プロジェクトは既にこれら2指標を達成している)
 - ・ GPS/GIS、民有地自然保護区 (RPPN) 、森林火災の予防と管理、参加型生物多様性保全、自然遺跡 (MONA) 等の分野において、カウンターパートに対する研修が終了時評価の時点までで合計 20 回 (本邦研修の1回も含む) 開催されている。(指標 3.1 に対応)
 - ・ 一般公開のセミナーがこれまで4回開催された。 (指標 3.2 に対応)
- (4) 成果 4:達成(2つの指標が設定されており、プロジェクトはこれら2指標を既に達成している)
 - ・ ポンテ・アルタ市、リオ・ダ・コンセイソン市、・リックス市、マテイロス市の対象4市において、市環境・観光審議会に関する制度がプロジェクトの支援により整えられ、2012年7月までに4市において市環境・観光審議会が活動を開始した。(指標 4.2 に対応)
 - ・ 市環境・観光審議会に対し、活動計画・実施能力、組織運営管理能力、ICMS Ecologico⁴ (環境保全交付金)の適正利用のための研修が実施された。また、環境教育に関する教員研修 (ASAS) がルーテル大学パルマス分校と連携して実施された。(指標 4.1 に対応)
 - ・ 成果 4 については2 つの指標が設定されており、プロジェクトはこれら2 指標を既に達成している。
 - ・ 環境保全交付金の適正利用に関する合意書が、4 市の環境・観光審議会と市長の間で 2012 年 10 月に

3 プロジェクトを実施していく中で「生態系コリドー」及び「モザイク」の概念と定義がプロジェクト関係者の間で次第に明確になり、PDM 中の「JREC」の語句については、参加型で統合的な保護区管理メカニズムである「ジャラポン・モザイク」と同義であるとの認識が形成された。したがって、終了時評価報告書では、JREC と同じ意味で「ジャラポン・モザイク」を使用している。

⁴ ICMS Ecologico は、市による保護区の保全管理を促すためのインセンティブ付与の仕組みである。その財源は、州税である ICMS(商品・サービス流通税)である。

- 署名され、これによって環境保全交付金の一定割合が環境・観光審議会の活動に使えることとなった。 ・ サン・フェリックス市では、2012年7月に市環境保護区システム法(SMUC)に基づくソノ川沿いの
- 市立自然遺跡(MONA)のための市条例が成立し、トカンチンス州で初めての市立保護区が設立され
- ・ ICMBio の省令に基づき、2012 年 4 月に、EESGT 審議会が正式に登録(承認)された。
- (5) 成果 5: ほぼ達成(1つの指標が設定されており、プロジェクトはその指標をほぼ達成した)
 - ・ 「ジャラポン・モザイク」戦略計画5は、協力終了までに完成する予定である。(指標 5.1 に対応)

3-2 プロジェクト目標の達成見込み

ほぼ達成:2つの指標が設定されており、プロジェクトは指標1についてはほぼ達成、指標2については達 成している。

- 「ジャラポン・モザイク」戦略計画については、関係者の参加と合意を得ながら進められ、プロジェ クト期間中に完成する予定である。 (プロジェクト目標の指標1に対応)
- ・ 本プロジェクトの目標としているジャラポン地域で生態系保全を実施するための「体制」とは、1)連 邦・州の関係機関が組織的な連携を促進するための枠組み、2) 連邦・州の関係機関が連携して保全に 取り組むための指針、3) ジャラポン地域の多様なアクターが保全に参加するための基盤、とプロジェ クトにより定義されている。これら体制を構成する要素については、プロジェクトにより各成果とし て実現されてきている。したがって、ジャラポン地域で生物多様性保全を促進するためのメカニズム は構築されているといえる。(プロジェクト目標の指標 2 に対応)

3-3 上位目標に向けた進捗度

- ・ 「ジャラポン・モザイク」が正式に登録され、モザイク審議会の設立と戦略計画の承認が行われれば、 戦略計画の実施が始まることになる。(上位目標の指標に対応)
- ・ プロジェクトにより構築された生物多様性保全メカニズムは、上位目標となっているジャラポン地域 の生態系保全の促進に役立つことが期待される。

4.5項目評価の概要

___ 4-1 妥当性

プロジェクトの妥当性は高い。

- 1) MMA 及び ICMBio にとって、セラード、特にジャラポン地域の保全に関する政策的重要性は、プロジェ クト開始当初から変わっていない。ジャラポン地域は ICMBio と MMA にとって優先度の高い保全地域の 1つであり、プロジェクトはこうした関連政策に合致している。
- 2) ICMBio 及びジャラポン地域の関係機関は、ジャラポン地域内の全ての保護区の取組みを調整し効果的な 生態系保全につながるメカニズム構築の必要性を認識している。また対象4市は、観光促進のためにも自 然保護に積極的であり、プロジェクトはこうした連邦、州、市の各レベル関係機関の開発ニーズを満たし ている。
- 3) 日本のブラジルに対する ODA 事業展開計画(2011年6月付け)は、環境保全を重点分野の1つとして いる。ODA 事業展開計画の中では、本プロジェクトは環境保全重点分野のなかの気候変動プログラムに 位置づけられている。このように、本プロジェクトは日本のブラジルに対する ODA 政策とも整合してい る。

4-2 有効性

プロジェクトの有効性は高い。

- 1) プロジェクトは、上記「3-1 プロジェクトの進捗と実績」で確認したように、すでに成果のほとん どを達成している。プロジェクトはこれら成果を達成することで、プロジェクト目標を達成できるよう効 果的に組み立てられている。プロジェクト目標指標2(ジャラポン地域生物多様性保全メカニズムの構築) については、既に指標を達成している。
- 2) 一方、プロジェクト目標指標 1 (ジャラポン・モザイク戦略計画の関係機関による同意) については、 ジャラポン・モザイクは、MMAにより正式に認知される見通しである。
- 3) 以上のことから、プロジェクトは、予定の終了期間までにプロジェクト目標を達成するものと考えられ る。プロジェクトの事業効果については、ICMBio が、ジャラポン地域の生態系保全に向けた管理体制に とって非常に価値があることを強調している。

4-3 効率性

⁵ 「戦略計画」は、SNUC に関する省令第4340 号(2002 年 8 月 22 日)第 3 章で定義される、保護区「モザイク」管理の調和・統合・最適化の ための指針と活動を定めるものである。

プロジェクトの効率性は高い。

- 1) プロジェクト開始時の PDM は、その後 2011 年 5 月 5 日に改訂された。プロジェクトの活動は、改訂後 の PDM と PO にそって実施され、プロジェクトの実施について目立った遅れはなかった。 PDM について は十分にカウンターパートに理解されている。
- 2) 日本側の投入(専門家の派遣、機材供与、本邦研修)はプロジェクト活動に効果的に利用され、ブラジル側からは高い評価の声がきかれた。日本人専門家はポルトガル語を話すことで、プロジェクト関係者とのより良いコミュニケーションを実現しており、プロジェクト実施の高い効率性に寄与している。
- 3) 定期的、日常的な日本人専門家とカウンターパートとの間のコミュニケーションは極めて良好である。 これまで JCC は 4 回開催され、この他に定期的なカウンターパート会議が計 10 回開催されている。

4-4 インパクト

プロジェクトのインパクトは高い。

- 1) プロジェクトにより構築された「ジャラポン・モザイク」を含む生態系保全メカニズムが持続し発展していくことがで、ジャラポン地域の生態系保全が促進(上位目標)されることが広くプロジェクト関係者から言及されている。プロジェクト終了後5年で上位目標が達成される可能性は十分ある。
- 2) その一方で、2013年4月までの残り期間で、ジャラポン・モザイク審議会のメンバーが戦略計画を遂行し、活動を実施していけるようになるための能力強化をプロジェクトとして行うことは難しい。ジャラポン・モザイクとしてある程度の期間活動することで、構築されたメカニズムと戦略計画の改善に向けたフィードバックが出てくることも考えられる。
- 3) PDM 内の活動以外でも、プロジェクトの実施に伴ういくつかのインパクトが見られる。例えば、EESGT とルーテル大学パルマス校の間で ASAS を推進していくための協力協定書が 2011 年 4 月 11 日に署名された。協定書に基づくパルマス校からの投入は、ASAS の活動実施にとって大きな支援となっている。
- 4) プロジェクトのいくつかの成果・活動の持続性確保に向けて、ICMBio はドイツ国際協力庁の支援による「セラードにおける森林火災および不法伐採の防止・管理・モニタリング」プロジェクト(2012年~2015年)の技術協力を活用していくことを既に決定している。
- 5) MMA は、生物多様性保全に向けて「モザイク」を積極的に進めたいとの考えであり、「ジャラポン・モザイク」を「モザイク」システムの優良事例として、既存の他の 13 のモザイク、および今後設立される新たなモザイクへ適用していくことを見込んでいる。

4-5 自立発展性

プロジェクトの自立発展性の見込みは、中程度である。

- 1)制度的な観点からは、プロジェクトの持続性の見込みは高い。プロジェクトにより構築された保全メカニズムは、法律および関係機関の間の合意文書など、法制度の整備を伴っている。対象4市におけるICMS Ecologicoの使途に関する合意文書の署名は、市環境・観光審議会の活動活発化への大きなインセンティブである。さらに、プロジェクト終了時までに期待される「ジャラポン・モザイク」の正式登録は、プロジェクト効果の持続性に向けた最も大きな成果である。
- 2) 戦略計画に基づく「ジャラポン・モザイク」の技術的な管理能力の強化(成果 2 および成果 5) については、今後の持続性の担保のためには、研修の実施や審議会メンバーが実際の運営経験を積んでいくなど、もう少しプロジェクトとして時間をかけることが必要である。また対象 4 市の環境・観光審議会についても、今後の持続性を担保するため、もう少し時間をかけて実際の運営経験を積んでいく間、プロジェクトとしてのモニタリングが必要と考えられる。
- 3) 人材的な観点からは、今後の連邦・州政府および市の職員の人事異動への懸念はあるが、プロジェクトはこうした懸念に対して、技術マニュアル、研修テキスト、引継文書などを準備することで、部分的に対応することは可能である。
- 4) 財政的な観点からの持続可能性の確保は大きな課題である。ジャラポン・モザイクは、市職員、市民社会・NGO そして民間企業からの代表も参加することになるが、こうしたメンバーの審議会出席のための旅費については、必ずしも政府予算でカバーされるわけではない。こうしたことから、「ジャラポン・モザイク」の運営経費を抑えるとともに、維持管理と活動実施に適した財務計画を作成することが重要である。

4-6 プロジェクトの効果発現を促進・阻害した主な要因

(1) 促進要因

日本人専門家は、頻繁にパルマスを訪問することで、ICMBio と州政府カウンターパートの間の調整・協働を担保した。パルマスに支部を持たない ICMBio にとって、このことはプロジェクトの円滑な実施にとって大きな促進要因となったことの言及があった。

(2) 阻害要因

対象4市では、2012年の市長選の実施に伴い環境・観光審議会のメンバーや市環境担当部局の人事異動があり、それまでに実施してきた関係者に対する研修等を再度実施する必要が生じた。このように活動の継続性が一時的に失われたことが阻害要因として指摘された。

5. 評価結果の要約

5-1 結論

ジャラポン地域の生態系保全は、MMA および ICMBio の政策と合致しており、その生物多様性ホットスポットとしての国際的重要性からも、プロジェクトの妥当性は高い。プロジェクトは効果的に組み立てられており、プロジェクト期間中のプロジェクト目標達成も見込めることから、プロジェクトの有効性は高い。日本人専門家とブラジル側カウンターパートの双方の努力と、関係機関の間の効果的で円滑なコミュニケーションにより、プロジェクトは効率的に実施されている。プロジェクトの終了後に上位目標が達成される見込みは十分あり、その他にもプロジェクト実施に関連するいくつかの活動も起こってきていることから、プロジェクトのインパクトは高い。持続可能性の現時点での見込みは中程度である。これは技術的・人材的・財務的な観点からは若干の懸念が見られるためであり、下記の通りプロジェクト延長を提言する。

5-2 提言

1) プロジェクト協力期間の延長

プロジェクトは予定終了期間内にプロジェクト目標の達成は確認できるものの、「インパクト」および「持続可能性」における評価結果を踏まえて、プロジェクトは今後次の努力を行っていく必要がある。 (1) 上位目標の達成に向けて、「ジャラポン・モザイク」審議会メンバーの能力強化と戦略計画の優先分野の実施支援により、バイア州での新たな保護区設置のための地域交渉を含む「ジャラポン・モザイク」の制度的な能力を確かなものにすること、(2) 「ジャラポン・モザイク」審議会および市環境・観光審議会の能力強化を進め、プロジェクトの持続性を向上させること。こうした課題を踏まえて、調査団はプロジェクトのインパクトと持続性を向上させることを目的とするプロジェクト期間の延長を提言する。

2) 「ジャラポン・モザイク」立ち上げにおける ICMBio のリーダーシップ

プロジェクト期間の延長の有無に関わらず、「ジャラポン・モザイク」の正式発足後は、ICMBio は「ジャラポン・モザイク」に係る活動実施の調整に関するリーダーシップをとること。特に、ジャラポン地域の対象4市は生態系保全活動を今後実施していくための支援を必要としていることから、ICMBio はこのような市に「ジャラポン・モザイク」のメカニズムを通して求められる支援を提供していくことを調査団は提言する。

5-3 教訓

- 1) プロジェクトの活動は、カウンターパートの組織内における役割・責任と良く合致していたことから、プロジェクト活動を通常業務の一部として取り組むことが出来た、と連邦・州のカウンターパートより言及があった。カウンターパートの本来業務とプロジェクト活動との一致は、本プロジェクトの高い有効性・効率性に貢献している。
- 2) 改訂 PDM は、3 年の協力期間を見据えて実現可能で現実的な目標・成果・対象市の数を設定し、効果的 なプロジェクトの実施につながった。プロジェクトが成功するためには、地域の現状を踏まえた現実的な PDM を準備することが重要である。
- 3) プロジェクトは、これまで柔軟かつタイムリーに管理(例えば、PDM 改訂、活動スケジュールの変更、 迅速な意思決定など)されてきている。これについては、プロジェクト・マネジャーに意思決定の権限が あったこと、フィールドや関係機関の事情を良く知っている JICA 在外事務所の主管により実施したこと が大きい。
- 4) プロジェクトは、地方のパートナーや利害関係者との対話に多くの時間と努力を注ぐことで、円滑なプロジェクト実施を実現している。こうした対話努力がプロジェクトの計画段階からなされていれば、プロジェクトは一層効率的に実施できた可能性もある。

Terminal Evaluation Summary Sheet

| 1 Outline of the Project | |
|---|---|
| Country: Federative Republic of Brazil | Project Title: The Jalapão Region Ecological |
| Thematic Area: Natural Environment and Biodiversity | Corridor Project |
| Division in Charge: JICA Brazil Office | Cooperation Scheme: Technical Cooperation Project |
| Project Period : Apr 2010~Apr 2013 | Total Cost: 350 million Japanese Yen |
| Supporting Organization in Japan: Ministry of | Counterpart Agency: Chico Mendes Institute for |
| Environment, Forestry Agency | Biodiversity Conservation (ICMBio) |

1.1 Background of the Project

The Cerrado, situated in the Midwestern part of Brazil, is a vast tropical savannah and significantly rich in biodiversity. It is, however, considered one of the most seriously threatened areas in terms of the loss of biodiversity in the world. Located in the Cerrado, the Jalapão region boasts particularly rich biodiversity because it is within a transitional zone among Cerrado, Amazon rainforests, and Caatinga that is characterized by small, thorny trees.

But human activities such as agricultural development and livestock farming are giving pressures on natural ecosystems in the region. Under such situation, the Federal Government of Brazil (GOB) has designated three conservation units including the Serra Geral do Tocantins Ecological Station (EESGT) and the Nascentes do Rio Parnaíba National Park (PNNRP) in order to protect the nature in the Jalapão region. Bahia and Tocantins state governments also have set up four state conservation units in the region. ¹

The effectiveness of conservation can be enhanced by connecting these conservation units with ecological corridors and managing these units in a strategic and coordinated manner. As such, it is important to coordinate related governmental organizations at the federal, state and municipal level, as well as NGOs and citizen groups, but ICMBio, the federal organization that is expected to play a leading role in the coordination for conservation, requires organizational or individual capacity development to implement it.

To address such issues, the GOB requested a technical cooperation project to the Government of Japan (GOJ) for strengthening ICMBio's capacity to assume the coordination role towards the establishment of regional conservation mechanism in Jalapão.

In response to the request, JICA dispatched a detailed planning survey in November 2008, and the R/D for the Project was signed in November 2009 following the discussions with Brazilian authorities concerned. Jalapão Region Ecological Corridor Project (hereinafter referred to as "the Project") started in April 2010 with 3-year cooperation period.

1.2 Project Overview

1) Overall Goal

The ecosystem conservation in the Jalapão region is enhanced through the introduction of the Ecological Corridor.

2) Project Purpose

The institutional capacity of ICMBio is strengthened to introduce and implement Ecological Corridor in the Jalapão region.

- 3) Outputs
 - 1. Information necessary for JREC management, including the Conservation Units buffer zones, is collected, analyzed and organized.
- 2. Institutional arrangements for the JREC management are structured.
- 3. Capacity development of personnel from ICMBio and other institutions, focused on implementation needs of the JREC, are conducted.
- 4. The linkage between local populations and institutions concerned with JREC conservation is strengthened.
- 5. The strategic plan/guideline for introducing and managing JREC is developed.
- 4) Inputs

(Japanese Side)

Dispatch of Expert: 7 experts (52 MM) in April 2010 - April 2013 (52 MM includes those planned during the period after this evaluation study)

Counterpart training in Japan: 3 ICMBio staffs in June 2011 (3 more staffs planned in November 2012)

Provision of Equipment: GIS data server, GIS software, Software for Remote Sensing, 2 vehicles

Local Cost: 77.2 million Japanese Yen (It covered the expenses for hiring local staffs and local consultants, printed materials, meeting and W/S)

¹ They are Jalapão Environmental Protected Area (APA), State Park of Jalapão, Rio Preto Environmental Protected Area, and Rio Preto Ecological Park.

(Brazilian Side)

Counterpart: ICMBio Brasilia HQ (Project Director, Project Manager and 2 more staffs), EESGT office (4 staffs) and PNNRP office (2 staffs), totaling 10. Also as the state level counterparts² in the Tocantins State, staffs from the Secretariat of Environment and Sustainable Development (SEMADES), Secretariat of Planning and Public Management Modernization (SEPLAN), and Nature Institute of Tocantins (NATURATINS) have been involved in the Project.

5) Target Area

The Jalapão region, i.e. connecting area between EESGT and PNNRP

| 2 Evaluation Team | | | |
|--------------------------|---|--|--|
| Member of the | 1. Mr. Ichiro Sato (Japanese Team Leader) Senior Representative, JICA Brazil Office | | |
| Evaluation Team | 2. Mr. Kazuaki Komazawa (Project Evaluation) Project Coordinator, JICA Brazil Office | | |
| | 3. Mr. Hiroyuki Okuda (Evaluation and Analysis) Tekizaitekisho LLC | | |
| | 4. Ms. Ilze Maeda (Interpreter) | | |
| | 5. Mr. Fernando Antonio Rodrigues Lima (Project Evaluation) Department of Protected | | |
| | Area, Ministry of Environment (MMA) | | |
| | 6. Mr. Frederico Dimas de Paiva (Project Evaluation) Coordination of Received Bilateral | | |
| | Cooperation, Brazilian Cooperation Agency (ABC) | | |
| Evaluation Period | 14 October 2012~3 November 2012 Type of Evaluation : Terminal Evaluation | | |

3 Project Performance

3.1 Project Progress

(1) Output 1 : Achieved (there are four indicators set for Output 1 and the Project has achieved all the indicators)

• The Web-GIS system developed by the Project for the Jalapão region was originally set up in ICMBio's computer network, then later transferred to the SEPLAN network for its effective utilization for the conservation and management of the Jalapão region. At present, SEPLAN's homepage is being modified to become the portal to the Web-GIS. (Indicator 1.1)

http://corredorjalapao.seplan.to.gov.br/jalapao/

• The project homepage was created in ICMBio website and has been constantly updated with the addition of new information, news-release and publications/maps for downloads. (related to Indicator 1.2)

http://www.icmbio.gov.br/projetojalapao/

- Many kinds and types of information/promotion materials were developed and distributed, e.g., the project brochures, ATLAS of Jalapão, banners and panels for the introduction of the Project, an environmental education book, and an educational video. (related to Indicator 1.3 and 1.4)
- (2) Output 2 : Achieved (there are two indicators set for Output 2, and the Project has already achieved these two indicators as of the terminal evaluation)
- The Reciprocity Term No.06/2011 on the introduction and implementation of Jalapão Ecological Corridor was signed on 29 September 2011 by the President of ICMBio, the Secretary of MMA, the Secretary of SEMADES, the President of NATURATINS, the Secretary of SEPLAN and the Governor of the State of Tocantins. (related to Indicator 2.1)
- Based on the Reciprocity Term, the coordination committee has gathered 4 times from November 2011 through August 2012. (related to Indicator 2.2)
- Furthermore, the Project has advanced to the creation of the "Jalapão Mosaic" agreement on the Mosaic participation was signed by the authorities of nine protected areas (federal, state, municipal, and private protected areas) located in the Jalapão region by August 2012, and a proposal to establish the "Jalapão Mosaic" was submitted to MMA in September 2012 for its recognition by a ministerial ordinance.
- (3) Output 3: Achieved (there are two indicators set for Output 3, and the Project has already achieved these two indicators as of the terminal evaluation)
- Trainings for counterparts have been conducted on such areas as GPS/GIS, Private Reserve of Natural Heritage (RPPN), prevention/control of forest fire, participatory biodiversity conservation and municipal Natural Monument (MONA), totaling 20 times as of the terminal evaluation, including the training in Japan. (related to Indicator 3.1)
 - Four open seminars were held. (related to Indicator 3.2)

² Despite the fact that only ICMBio is an official counterpart defined in the R/D above, staffs of Tocantins State Relations Department are positioned as "state counterparts" since they play an important role and will continue to implement the Project.

³ As a result of the clarifications of the concepts and definitions of "ecological corridor" and "mosaic" through the implementation of the Project and considering the definitions of terminology used in Brazil, it was determined that the concept of the term "JREC" in the PDM should be described as "Jalapão Mosaic", which is a mechanism of integrated and participatory management of protected areas. Therefore, the term, "Jalapão Mosaic", is used in this document with the same meaning as the term, "JREC"

- (4) Output 4: Achieved (There are two indicators set for Output 4, and the Project has already achieved these two indicators as of the terminal evaluation)
- The municipal councils for the environment and tourism have been constituted and begun operation in the 4 target municipalities Ponte Alta, Rio da Conceição, São Félix and Mateiros along with the creation of the necessary legislation assisted by the Project: Municipal Council for Tourism and the Environment (COMTURMA) in São Félix and Municipal Council for the Environment and Tourism (COMATUR) in the other 3 municipalities. (related to Indicator 4.2)
- Training programs have been carried out in 2011 for the capacity development of the COMATUR/COMTURMA on planning/implementation, organizational management, and the utilization of ICMS Ecológico⁴. Also, the training programu for school teachers about environmental education (ASAS) has been carried out in cooperation with Lutheran University of Brazil. (related to Indicator 4.1)
- Commitment Terms on the use of ICMS Ecológico were officially signed by mayors and representatives of COMATUR/COMTURMA at four municipalities in October 2012.
- MONA was established in São Félix along Soninho River on 2 July 2012 by the signing by the mayor of São Félix of the municipal decree No 034/2012 based on the Municipal System of Conservation Units (SMUC). This became the first municipal protected area in the State of Tocantins.
- Furthermore, the Council of EESGT was officially registered (approved) by ICMBio's institutional ordinance No. 45/2012 in April 2012.
- (5) Output 5 : Almost achieved (there is one indicator set for Output 5, and the Project has almost achieved the indicator)
- The development of the Strategic Plan⁵ for the "Jalapão Mosaic" will be completed by the end of The Project. (related to Indicator 5.1)

3.2 Achievements of Project Purpose

The Project Purpose was almost achieved (there are two indicators set for the Project Purpose, and the Project has almost achieved the first indicator, and has achieved the second indicator as of the terminal evaluation)

- The Strategic Plan for "Jalapão Mosaic" is currently under finalizing process, thus the consensus is being built. (related to Project Purpose Indicator 1)
- The biodiversity conservation mechanism, which was defined by the Project to consist of the integration/cooperation framework among federal and state institutions, directions of conservation efforts to be shared among concerned actors, and instruments which enable communities to participate in conservation, has been developed. (related to Project Purpose Indicator 2)

3.3 Progress toward Overall Goal

- The implementation of the Strategic Plan for the "Jalapão Mosaic" will start once the Council of the "Jalapão Mosaic" is established and the Strategic Plan is approved.
- The mechanism to promote biodiversity conservation established by the Project is expected to contribute to the enhancement of the ecosystem conservation of the Jalapão region.

4 Review Based on the 5 Criteria

4.1 Relevance

The relevance of the Project is high.

- 1) The policy importance of conserving the Cerrado, in particular the Jalapão region, remains unchanged for MMA and ICMBio since the beginning of the Project. The Jalapão region continues to be one of the priority conservation areas of ICMBio and MMA. Therefore, the Project is aligned with the related Brazilian policies.
- 2) Both ICMBio and state organizations related to Jalapão region recognize the need for establishing an effective mechanism to facilitate concerted efforts to conserve the Jalapão region among all the conservation units in the region. The municipalities were motivated to conserve nature and subsequently promote tourism. Therefore, the Project fulfills such development needs of the stakeholders at the federal, state and municipal level.
- 3) Japan's ODA Rolling Plan for Brazil dated June 2011 gives a priority to the environmental conservation, recognizing the fact that Brazil's valuable flora & fauna, including those in the Cerrado, are threatened by development activities. In the Rolling Plan, the Project is included in the Climate Change Program under the priority area of environmental conservation. Therefore, the Project is relevant in terms of the Japanese ODA policies for Brazil.

4.2 Effectiveness

The effectiveness of the Project is high.

⁴ ICMS Ecológico is a revenue sharing scheme, designed to promote the conservation and management of protected areas. The financial source of this scheme is a state tax, ICMS (Merchandise and Service Circulation Tax).

⁵ Strategic Plan is a document defined by Chapter III of the Decree No. 4.340 of 22 August 2002 that regulates National System of Conservation Units: SNUC (federal law of No. 9985 of 18 July 2000) and sets the guidelines/actions to harmonize, integrate and optimize the management of the "mosaic" of protected areas.

- 1) The Project has already delivered most of its Outputs as summarized in the "3.1 Project Progress" above. These Outputs are essential components for the mechanism to promote Jalapão's biodiversity conservation and the Project is designed effectively to achieve its Purpose by delivering these Outputs. This means the Project has achieved the Project Purpose Indicator 2.
- 2) On the other hand, as to the Project Purpose Indicator 1, the proposal to create "Jalapão Mosaic" is expected to be recognized by MMA .
- 3) With the reasons above, the Project is expected to attain the Project Purpose by the end of project period. It is emphasized by ICMBio that all the results of the Project are of great value to the management of conservation of the Jalapão region.

4.3 Efficiency

The efficiency of the Project is high.

- 1) The initial PDM was revised on 5 May 2011. Activities have since been implemented according to the revised PDM and PO, and there has since been no notable delay of the implementation. The PDM is fully understood by the counterparts.
- 2) Inputs from Japanese side (i.e. expert team, provision of equipment, and training in Japan) are properly used for project activities and are highly appreciated by the Brazilian side. Portuguese speaking Japanese experts have certainly contributed to a better communication with Brazilian counterparts and, in particular, with local stakeholders.
- 3) The periodical and daily communication between the Japanese experts and counterparts are very good: four JCC meetings were held to date and there have been many periodical counterpart meetings held about every four months.

4.4 Impact

The impact of the Project to date is high.

- 1) It is widely indicated that the establishment and continuation of the conservation mechanism developed by the Project, including the "Jalapão Mosaic", will lead to the enhanced ecosystem conservation in the Jalapão region, thus having a good potential to achieve the Overall Goal within 5 years after the Project comes to an end
- 2) The current cooperation period will not allow the Project to capacitate the Mosaic Council members to become capable of implementing the Strategic Plan, and undertake some actions in accordance with the Strategic Plan, which provides feedback for improvement of the mechanism and the Strategic Plan of "Jalapão Mosaic".
- 3) There are some effects produced outside of PDM activities. For example, EESGT/ICMBio and Lutheran University of Brazil (CEULP/ULBRA) signed a memorandum of three-year cooperation to promote environmental education in April 2011. Activities of ASAS had significant benefits by the input from CEULP, which was based on this memorandum.
- 4) To ensure the sustainability of some outputs/activities of the Project, ICMBio has decided to utilize German Agency for International Cooperation (GIZ)'s technical cooperation "Prevention, control and monitoring of forest fires and illegal burning in the Cerrado" (2012 2015) which is implemented in the Jalapão region.
- 5) MMA is promoting the establishment of "mosaics" for biodiversity conservation, and regarding the proposal for creating the "Jalapão Mosaic" as a good model example that can be applied for other 13 existing mosaics as well as new mosaics to be established in the future in the country.

4.5 Sustainability

The prospect of sustainability of the Project is medium at present.

- 1) From institutional viewpoint, the prospect of sustainability is high, for the integrated conservation mechanism established by the Project is based on legislation and formal agreements between related organizations. In the four municipalities, the Commitment Terms on use of ICMS Ecológico were also signed between the mayor and the COMATUR/COMTURMA. That gives significant motivation and incentives for the activities by COMATUR/COMTURMA. Most importantly for the sustainability of the Project, the official establishment of "Jalapão Mosaic" is expected by the end of the Project.
- 2) The development of technical management capacity of the "Jalapão Mosaic" to implement the Strategic Plan (Output 2 and 5) may require more time for training, and actual operational practices and experiences to ensure its sustainability. Likewise, COMATUR/COMTURMA also requires more time to accumulate actual operational practices and experiences to ensure its sustainability.
- 3) From human resource point of view, there are concerns about the sustainability considering future possible transfer and change of staffs of federal/state governments as well as of municipalities. The Project can deal with this issue in part by producing documents, such as technical manuals, training texts, and handover procedures.
- 4) Financial capacity to sustain the effects and benefits of the Project is regarded as a challenge. The Jalapão Mosaic will involve people from municipalities, civil societies, NGOs and the private sector, whose travel expenses to attend the council meetings are not always covered by federal/state government budgets. As such, it is important to prepare a financial plan to minimize costs and help to sustain the management and activities of the "Jalapão Mosaic".

4.6 Factors that have promoted or hindered the implementation of project

(1) Promoting factors

Japanese experts, through their frequent visits to Palmas, have ensured the coordination and cooperation between ICMBio and the state counterparts in project implementation, which is recognized by ICMBio as a significant promoting factor for smooth and effective project execution.

(2) Hindering factors

In the target 4 municipalities, along with the election of mayors in 2012, member of municipal environmental council changed and some staffs of municipalities in charge of the environment were transferred. The Project had to do the training over again, and this interruption of continuity was pointed out as a hindering factor for project efficiency.

5 Results of the Terminal Evaluation

5.1 Conclusion

The relevance of the Project is high as the ecosystem conservation of the Jalapão region is aligned with the policies of Brazil's Ministry of Environment and ICMBio, not to mention its global importance as a hotspot of biodiversity. The effectiveness of the Project is high as the Project is properly constructed and is making a good progress towards achieving its Purpose by the end of project duration. The efficiency of the Project is also high due to the efforts of both Japanese and Brazilian teams and effective communication and smooth cooperation among all participating organizations. The impact of the Project is high due to the various expected and unexpected positive effects of the Project. The prospect of sustainability is medium at present because there are some concerns about the sustainability from technical, human resource, and financial viewpoints. The Team recommends the extension of the project cooperation period to reinforce the Project in terms of "Impact" and "Sustainability".

5.2 Recommendations

1) Extension of the project cooperation period

Although the Project is considered to attain the Project Purpose by the end of the current cooperation period, the evaluation results from the aspects of "Impact" and "Sustainability" suggest that the Project needs further efforts (1) to consolidate the institutional capacity of "Jalapão Mosaic" through the capacity development of mosaic council members and implementation of priority actions of the Strategic Plan, including the support for local negotiations towards the creation of a new strictly protected area in Bahia State, in order to facilitate the achievement of the Overall Goal, and (2) to strengthen the capacity of the Jalapão Mosaic Council and COMATUR/COMTURMA to enhance sustainability of the Project. Therefore, the Team recommends the extension of the project cooperation period to reinforce the Project in terms of "Impact" and "Sustainability".

2) Leadership of ICMBio to operationalize "Jalapão Mosaic"

Regardless of the extension of the Project, the Team recommends that, once "Jalapão Mosaic" is officially established, ICMBio should play a leading role to coordinate the related organizations for implementation of the activities under "Jalapão Mosaic". Particularly, municipalities in Jalapão Region absolutely require assistance to undertake conservation activities and, hence, ICMBio should extend necessary assistance to such municipalities through the mechanism of "Jalapão Mosaic".

5.3 Lessons Learnt

- 1) Counterparts indicate that the project activities are fully aligned with their own roles and responsibilities in their organizations, thus being able to undertake them as a part of their daily duties. This apparently contributes to a high effectiveness and efficiency of the Project implementation.
- 2) The revised PDM is well constructed for the Project with achievable and realistic goal, outputs and number/selection of target municipalities for three years of the cooperation period. It is important to prepare a good and realistic PDM for the Project to be successful.
- 3) The Project was managed in a flexible and timely manner (e.g. revision of PDM, change of work schedules, and quick decision-making), which can be attributed to the significant decision making power of the Project Manager and the management of the Project by the JICA overseas office that is well aware of the local situations in the field and conversant with related organizations.
- 4) The Project has invested a lot of time and efforts in the interlocution with local partners and stakeholders, which contributed to the smooth implementation of the Project. The Project could have been even more efficiently implemented if such interlocution efforts had been made in the planning stage of the Project.

第1章 終了時評価の概要

1-1 背景

「セラード」と呼ばれるブラジル連邦共和国(以下、「ブラジル」と記す)中西部を中心に分布する熱帯サバンナ植生帯は、極めて生物多様性の豊かな地域であるが、同時に世界で最も生物多様性の喪失が危惧される地域の1つと言われている。同地域に位置するジャラポン地域は、アマゾンの熱帯林、及びカアチンガと呼ばれる半乾燥地域の有棘潅木疎林に代表される生態系とセラードとの移行地帯にあり、多様性に富む生態系が広がっている。さらに同地域は、パルナイバ河、サンフランシスコ川、トカンチンス川等の重要な河川の水源地域となっている。

しかしながら、同地域の周辺では農業開発、放牧等が進んでいる状況であり、ブラジル政府は、ジャラポン地域の自然を保護するため、セハ・ジェラウ環境ステーション(EESGT)、パルナイバ河上流域国立公園(PNNRP)等を中心とする3つの自然保護区を設置している。また、トカンチンス州やバイア州政府も、同地域に合計4つの州立自然保護区(ジャラポン環境保護区、ジャラポン州立公園、リオ・プレト環境保護区、およびリオ・プレト生態系ステーション)を設置している。

これらの保護区の生態系保全機能を一層高めていくためには、保護区の間を生態系コリドーでつなぎ、保護区とコリドーを合わせた地域全体を、戦略性を持って協調しながら管理していくことが求められている。しかし、これを実現していくためには、連邦、州、市の関係各機関や、NGO、市民団体等、様々な関係者による連携と協力が必要であるが、これをリードしていく立場にあるブラジル政府の自然保護区管理所掌機関「シコメンデス生物多様性保全院」(ICMBio)は、2007年に環境再生可能天然資源院(IBAMA)から分離・独立した新しい組織であり、組織と人員の両面におけるキャパシティ向上を必要としている。

このような背景から、ブラジル政府は、ICMBioの能力開発を図り、ジャラポン地域の自然を戦略的かつ関係者の協調の下に保全していく体制を構築するため「ジャラポン生態系コリドー技術協力プロジェクト」(以下、「プロジェクト」)への支援を、わが国に対して要請した。

わが国政府は、同プロジェクトの実施に向けて、具体的な協力の計画を検討・協議することを決定し、これを受け国際協力機構(JICA)は 2008 年 11 月に詳細計画策定調査団を派遣した。ブラジル側関係機関との協議を経てプロジェクトの基本計画を策定し、2009 年 11 月に本プロジェクトに係る討議議事録 (R/D) に署名した。

本プロジェクトは、ICMBio をカウンターパート (C/P) 機関として、2010 年 4 月から 2013 年 4 月までの期間で実施されている。今回の終了時評価調査は、新 JICA 事業評価ガイドラインに基づきプロジェクトの総合的な評価を行うとともに、プロジェクト目標の達成に向けた残りの協力期間への短期的提言とプロジェクト終了後への長期的提言を行い、合同評価報告書に取りまとめ、合意することを目的として実施された。

1-2 終了時評価の目的

終了時評価の目的は次の通りである。

- 1) PDMに基づいて、プロジェクトのこれまでの投入、活動、実施プロセス、成果と実績 を確認するとともに、プロジェクト目標、上位目標の達成見込みを判断する。
- 2) JICA事業評価ガイドラインに基づき、評価5項目(妥当性、有効性、効率性、インパクト、持続性)の観点からプロジェクトを評価する。
- 3) 残りのプロジェクト期間及び今後の活動内容に関する提言を取りまとめるとともに、 将来の類似プロジェクトの形成・実施の参考となる教訓を抽出する。

1-3 団員構成

終了時評価は、以下の団員から構成された調査団により実施された。

(ブラジル側)

| 氏名 | 担当 | 所属 |
|------------------------|----------|------------------------|
| Mr.Fernando Antônio | プロジェカト証価 | 環境省自然保護区局スペシャリスト |
| Rodrigues Lima | | 現場自日然体度区向ハベンギッハト |
| Mr. Frederico Dimas de | プロジェクト評価 | ブラジル国際協力庁二国間協力調整プロジェクト |
| Paiva | フロンエクト評価 | 分析官 |

(日本側)

| 氏名 | 担当 | 所属 |
|--------|-------|-----------------|
| 佐藤一朗 | 日本側団長 | JICA ブラジル事務所次長 |
| 駒沢カズアキ | 協力企画 | JICA ブラジル事務所所員 |
| 奥田浩之 | 評価分析 | 合同会社適材適所コンサルタント |
| 前田イウゼ | 通訳 | - |

1-4 調査団の派遣日程

調査団のスケジュールは別添資料3の通りである。

1-5 プロジェクトの概要

2011年 5月に開催された JCC 会議において承認された PDM Ver2 によると、プロジェクトの概要は以下のとおりである。

(協力期間)

2010年4月8日~2013年4月7日(3年間)

(対象地域)

ブラジルジャラポン地域 (セハ・ジェラル生態系ステーションとパルナイバ河上流域 国立公園の間の地域)

(C/P 機関)

シコメンデス生物多様性保全院 (ICMBio)

(上位目標)

生態系コリドー導入によりジャラポン地域の生態系保全が促進される。(プロジェクト終了から5年後の時点における達成を見込む。)

(プロジェクト目標)

ジャラポン地域で生態系コリドーを導入・実施するため、ICMBioの体制が強化される。 (成果)

- 1. 自然保護区のバッファーゾーンを含むジャラポン地域生態系コリドー (JREC) 実施に必要な情報が収集、分析、整理される。
- 2. JREC 実施のための組織的な連携が構築される。
- 3. JREC の実施に必要な ICMBio 職員及び関係機関職員の能力向上が実施される。
- 4. JREC 保全に関する関係機関と地域住民との連携が強化される。
- 5. JREC 保全のための戦略文書/ガイドラインが作成される。

1-6 終了時評価の手法

終了時評価は、『新 JICA 事業評価ガイドライン第 1 版』に沿って、必要なデータ・情報を収集、整理、分析し、当初計画と活動実績、計画達成状況、評価 5 項目等の観点から、プロジェクトの実施状況を総合的に評価する。評価実施の際の基礎ツールとなるのは、本プロジェクト R/D 中のマスタープランに沿ってプロジェクト、成果、指標などが要約された PDM(詳細計画策定調査時に策定されたものから、2011 年 5 月 5 日に実施した JCC において変更に合意し、後日計画変更に係るミニッツの署名が行われたもの) である。

調査団は、まずプロジェクトに関する既存の文献、報告書等をレビューし、次に PDM に基づき、プロジェクトの実績(投入、活動、アウトプット、プロジェクト目標達成度等)および評価 5 項目ごとの調査項目に関するデータ、情報を収集し、整理するための 2 つのグリッド(成果グリッド及び評価グリッド)を作成した。評価グリッドに基づいて質問票を作成し、現地調査前にプロジェクト関係者(C/P 機関)に配布、記入を依頼した。日本側調査団は、現地調査期間中に、プロジェクト実施に関わった連邦政府機関職員、州政府機関職員、対象4市の関係者に対するインタビュー・ヒアリングを行った(添付資料 5、添付資料 6)。

現地調査は、ブラジル側評価委員と合同で実施された。事前に配布した質問票の回収、報告書からの情報や知見、プロジェクト関係者へのヒアリング、活動サイトの訪問などにより得られた結果については、成果グリッド、評価グリッドにいったん整理した。そして、ブラジル C/P、プロジェクト専門家とも協議しながら、プロジェクトの成果を確認し、評価 5 項目の観点から評価を行い、提言と教訓を抽出して、合同評価報告書に取りまとめた。

JICA のプロジェクト評価では、評価における価値判断の基準として「評価 5 項目」が採用されている。評価 5 項目とは、1991 年に経済協力開発機構(OECD)開発援助委員会(DAC)で提唱された開発援助の評価基準であり、次の 5 項目からなる。

| 項目 | 評価の視点 | |
|-----|------------------------------------|--|
| 妥当性 | 相手国やターゲットグループの政策・方針、優先度やニーズと、プロジェク | |
| | トの目標・上位目標との整合性の度合い。 | |

| 有効性 | プロジェクト目標の達成度合いを測り、活動・成果・目標の関係など、プロ |
|-------|--------------------------------------|
| | ジェクトが有効に組み立てられていたかどうかを検証。 |
| 効率性 | プロジェクトが期待する成果 (アウトプット) を達成するために効果的に資 |
| | 源(インプット)を使っているかどうかをみる。 |
| インパクト | 上位目標への進捗度合いの他、プロジェクトによって意図的または意図せず |
| | に生じる正・負の変化を評価する。環境・貧困削減・ジェンダー等の開発指 |
| | 標にもたらす影響を含む。 |
| 持続性 | プロジェクトによる支援が終了しても成果が持続するかどうかについて、制 |
| | 度、技術、人材、財政の各視点からの見込み。 |

第2章 プロジェクトの実績

2-1 投入実績

(日本側)

1) 専門家の派遣

2009年11月20日のR/D署名に続いて、2010年4月に3名の専門家の派遣をもってプロジェクトが開始された。この3名を含め、3年間で7名の専門家が、合計1,573日(52M/M)派遣された。(2012年度の派遣については、計画日数を含む。) 専門家の指導科目は、チーフアドバイザー、生態系保全、組織強化、参加型資源管理、GISである。また、プロジェクトの現地における実施促進のため、プロジェクトは現地スタッフ、現地コンサルタントを雇用している。 [添付資料5中のAnnex5(英語版)]

2) 本邦研修

2011年6月に実施された本邦研修には、ICMBioからプロジェクト・マネージャーを含む3名が参加した。本邦研修については、2012年11月に、さらにICMBioからの3名の職員に対して実施される計画である。〔添付資料5中のAnnex8(英語版)〕

3) 資機材供与

車両 2 台、GIS データサーバー、GIS ソフト、リモートセンシングソフト、衛星画像等の資機材が供与され、その調達については JICA ブラジル事務所が行った。成果 1 に必要な GIS データサーバーについては、当初 DMOC - ICMBio に設置されたが、その後、当該データサーバーに格納されていた GIS データが ICMBio 全体の情報システムに統合されたため、ICMBio ではサーバーは不要となった。機材の有効活用を図るため 2012 年 6 月に、Web-GIS システム(ソフトウェア)とともに、サーバーをジャラポン地域トカンチンス州の SEPLAN に移転し、プロジェクトで作成した GIS データベースをトカンチンス州政府での利用のために供与した。〔添付資料 5 中の Annex7(英語版)〕

4) 現地業務費

日本側は、現地におけるプロジェクト活動の実施に必要な費用の一部を負担している。 その主な内訳は、現地スタッフ・現地コンサルタントの雇用、配布物・資料の作成、会議・ ワークショップの開催、消耗品を含むその他の出費であり、プロジェクト期間の3年間で 合計7,719万円(3年目については、予定値)である。[添付資料5中のAnnex9(英語版)]

(ブラジル側)

1) C/P の配置

C/P は、連邦政府機関 ICMBio の本部(ブラジリア)、その EESGT 事務所(リオ・ダ・コンセイソン)及び PNNRP 事務所(コヘンテ)の職員であり、終了時評価時点では 10 名の C/P がプロジェクト活動に携わっている。さらに、トカンチンス州政府機関 (SEMADES,

NATURATINS, SEPLAN)の職員、またバイア州政府機関(INEMA)の職員が、州 C/P⁷と位置づけられてプロジェクトに従事した。〔添付資料 5 中の Annex8(英語版)〕

2) 現地活動費

ICMBio とトカンチンス州政府機関(SEMADES, NATURATINS, SEPLAN and INEMA)は、プロジェクト活動の実施に必要な費用を負担している。C/P 機関 ICMBio の支出の内訳は、車両の燃料費・メンテナンス費、雇用費、旅費等であり、プロジェクト期間の3年間で272万レアル(3年目については、計画値)となっている [添付資料5中のAnnex9(英語版)]。

2-2 プロジェクトの進捗と実績

プロジェクトの成果と実績の進捗度は、成果グリッド 1 - 指標に照らした実績 [添付資料 5 中の Annex10(英語版)]及び成果グリッド 2 - 活動レベルの進捗度[添付資料 5 中の Annex11 (英語版)] に詳細に記述した。

1) 成果 1 自然保護区のバッファーゾーンを含むジャラポン地域生態系コリドー(JREC) 実施に必要な情報が収集、分析、整理される。

現在プロジェクトのホームページが ICMBio ホームページ内に構築され、自然保護区のバッファーゾーンを含む JREC 実施に必要な情報が検索、抽出できる。具体的にはプロジェクト対象地域に係る社会経済情報、地質・気象情報、コリドー等主要関連用語に係る説明、本件協力に係る説明などが確認可能である(指標 1.1)。またこれらデータベースは定期的(年に 4 回以上)に更新されており、必要な情報のタイムリーな収集・分析・整理が C/P の現地作業結果報告や関連機関からの情報提供等を基にしたホームページへのアップロードによりなされ、情報の追加がなされている(指標 1.2)。これら情報は関係機関の間へ発信・共有もなされ、プロジェクトのパンフレット、ジャラポン地域アトラス、環境教育のための読本など、様々な種類・形式での情報資料、啓発資料が作成され整理されている(指標 1.3 および 1.4)。以上より、成果 1 は達成されていると判断する。

本成果に係る各指標については以下の通りである。

・ 指標 1.1 収集情報を整理したデータベースが作成される。

プロジェクトが開発したジャラポン地域を対象とする Web-GIS システムは、最初は日本側から供与した GIS データサーバーにインストールして運用し、ICMBio 内での利用に供された。しかし、ICMBio が新規の Web-GIS システム(ブラジル全国を対象としたもの)の構築に新たに着手したため、並行して 2 つの独立した Web-GIS を設置するのは非効率と考えられ、両者が統合されることとなった。日本人専門家チームと ICMBio の協議の結果、プロジェクトにより開発された Web-GIS は、ジャラポン地域の保全・管理への効果的利用のため、データコンテンツも含めてデータサーバーとともにトカンチンス州政府に移管されることとなった。こうしたことから、ジャラポン地域の

⁷R/D 上は ICMBio の職員だけがカウンターパートとされているが、トカンチンス州関係局の職員はプロジェクトを 実施していく上で重要な役割を果たしていることから、「州カウンターパート」と位置付けられるようになった。 Web-GIS システムは、2012 年 6月に SEPLAN ネットワークに移転された。現在 SEPLAN のホームページが、この Web-GIS システムへのポータルとなるよう変更が進められて おり、Web-GIS システムの公開セレモニーが 2012 年 11 月 9 日にパルマスにおいて実施 される予定である。

http://corredorjalapao.seplan.to.gov.br/jalapao/

指標 1.2 ICMBio ウェブサイト内に設置されたプロジェクトホームページが少なくと も年 4 回更新される。

プロジェクトのホームページが ICMBio ホームページ内に構築され、情報の追加やニュースリリース、ダウンロードのための出版物・地図の追加により、定期的に(年に4回以上)更新されている。

http://www.icmbio.gov.br/projetojalapao/

・ 指標 1.3 JREC 実施に必要な情報が関係機関の間に発信され共有される。

/ 指標 1.4 情報共有資料が作成される。

プロジェクトのパンフレット、ジャラポン地域アトラス、対象市で利用するためのプロジェクト紹介バナー、CEIT (マテイロス市観光展示・情報センター)やサン・フェリックス市に掲示する環境パネル、環境教育のための読本、環境教育ビデオなど、様々な種類・形式の情報資料、啓発資料が作成、配布された。

今後プロジェクト終了までに実施する活動としては、1)ジャラポン地域アトラスの改訂、2)SEPLAN ホームページ内の Web-GIS システムの情報拡充と一般公開がある。

2) 成果 2 JREC 実施のための組織的な連携が構築される。

連邦レベル機関(ICMBio 及び MMA)や州レベル機関(知事、SEMADES、NATURATINS、SEPLAN)等関係機関間でジャラポン生態系コリドーの導入と実施に関する協力協定書が署名され(指標 2.1)、この協定書に基づき、2011年11月以降 2012年8月までの間に、関係機関の調整委員会が定期的に4回開催された(指標 2.2)。この協定書署名及び調整員会の開催によって成果2については達成したといえるものの、JRECをさらに堅固にし、当該地域連邦・州・市の計9つの保護区の管理者による参加型で統合的な保護区管理メカニズム(通称「ジャラポン・モザイク」)として MMA の認可を得るなどが未完である。上位目標達成に向けて同認可やプロジェクト成果の拡大(ICMBioとバイア州との間の協力協定書の署名)についてプロジェクトの残り期間での達成を期待する。

各指標についての説明は次の通りである。

・指標 2.1 JREC 実施に資する連邦・州間環境協力協定書に関して、関係機関から組織的な同意を得る。

ジャラポン生態系コリドーの導入と実施に関する協力協定書 No.06/2011 の署名が、ICMBio 総裁、MMA 局長、SEMADES 局長、NATURATINS 総裁、SEPLAN 局長、トカンチンス州知事により、2011 年 9 月 29 日に行われた。

・ 指標 2.2 JREC 実施のための関係機関との会議が少なくとも年 3 回実施される。 協力協定書に基づき、2011 年 11 月以降 2012 年 8 月までの間に、関係機関の調整委員 会が定期的に 4 回開催された。 以上に加えて、更にプロジェクトは、「ジャラポン・モザイク⁸」の設置を進めている。

2012 年 8 月までに、モザイクを構成することになる連邦・州・市の計 9 つの保護区の管理者によりジャラポン・モザイクへの参加確認書の署名がなされ、さらに「ジャラポン・モザイク」設立に向けた提案書が作成され、2012 年 9 月に MMA に提出された。現在、MMA において、省令によるモザイクの認知に向けた検討が進められている。

成果 2 は既に目標を達成しているものの、さらに上位目標の達成に向けた残り期間中の追加的な活動については、1) 環境省における「ジャラポン・モザイク」の正式な認知に向けたフォローアップ、2) ICMBio とバイア州との間の協力協定書の署名に向けたフォローアップ、3) ジャラポン・モザイク審議会設立支援と審議会メンバーに対する「戦略計画⁹」実施に関する能力強化がある。

3) 成果 3 JREC の実施に必要な ICMBio 職員及び関係機関職員の能力向上が実施される。 C/P に対する研修が参加型森林保全等当該分野関連で合計 20 回(終了時評価時点)実施され(指標 3.1)、一般公開のセミナーがこれまで 4 回(2010 年 5 月キックオフセミナー、2011 年 9 月 RPPN 技術セミナー、2011 年 11 月 JREC 保全技術セミナー、2012 年10 月成果 4 総括セミナー)開催された(指標 3.2)。これらの研修・セミナーにより参加型森林保全に関する当該関連職員の能力向上が実施されたことから、成果 3 はほぼ達成されたと判断する。

各指標についての詳細は以下の通りである。

・ 指標 3.1 関係機関も含めて、研修、視察などの能力向上のための活動が、プロジェクト期間中少なくとも 2 回実施される。

GPS/GIS、RPPN、森林火災の予防と管理、参加型生物多様性保全、MONA 等の分野において、C/Pに対する研修が終了時評価の時点までで合計 20回(本邦研修の1回も含まれている)開催されている。

・ 指標 3.2 JREC 保全のためのセミナーが、プロジェクト期間中少なくとも 2 回実施される。

一般公開のセミナーがこれまで 4 回(2010 年 5 月キックオフセミナー、2011 年 9 月 RPPN 技術セミナー、2011 年 11 月 JREC 保全技術セミナー、2012 年 10 月成果 4 総括セミナー)開催された。

今後プロジェクト終了までに実施する活動としては、1) 2012 年 11 月の第 2 回本邦研修、2) SEPLAN 職員に対する Web-GIS の運用と管理に関する技術移転、3) 2012 年 11 月と 2013 年 3 月の C/P 会議、4) 2013 年 3 月のプロジェクト終了セミナーがある。

⁸ プロジェクトを実施していく中で「生態系コリドー」及び「モザイク」の概念と定義がプロジェクト関係者の間で 次第に明確になり、PDM 中の「JREC」の語句については、参加型で統合的な保護区管理メカニズムである「ジャラ ポン・モザイク」と同義であるとの認識が形成された。したがって、終了時評価報告書では、JREC と同じ意味で「ジャラポン・モザイク」を使用している。

^{9 「}戦略計画」は、SNUCに関する省令第 4340 号(2002 年 8 月 22 日)第 3 章で定義される、保護区「モザイク」管理の調和・統合・最適化のための指針と活動を定めるものである。

4) 成果 4 JREC 保全に関する関係機関と地域住民との連携が強化される。

地域(市)レベルにおいて、JREC 保全に関するモデル・プロジェクトの形成を通じた活動計画・実施能力の強化、環境保全交付金の適正利用に向け研修が実施され、環境教育に関する教員研修が実施された(指標 4.1)。本件協力対象 4 市において、市環境・観光審議会に関する制度が整えられ、活動を開始した(指標 4.2)。市レベル機関で活動する人材の研修により、同機関と住民の連携を強化するとともに、現地住民でもある教師の研修により住民への接触もなされることとなった。すなわち関係機関職員は技術的にも制度的にも地域住民への啓もうを行える能力を獲得し、上記教師研修などへの関与により直接の住民との連携を強化したことから、成果 4 は達成と判断する。

各指標に関する詳細については以下の通りである。

・ 指標 4.1 地域住民を対象とした研修が、プロジェクト期間中少なくとも 2 回実施される。

COMATUR/COMTURMA の能力強化に関する一連の研修プログラムが 2012 年に実施された。具体的には、モデル・プロジェクトの形成を通じた活動計画・実施能力の強化、組織運営管理能力の強化、ICMS Ecologico¹⁰(環境保全交付金)を適正利用するための財務管理能力の強化等のための研修が実施された。また、環境教育に関する教員研修(ASAS)がリオ・ダ・コンセイソンとマテイロスで 2011 年に、サン・フェリックスとポンテ・アルタで 2012 年に、CEULP/ULBRA と連携して実施された。

・ 指標 4.2 関係機関の支援によって、自治体の環境関連条例が強化される。

ポンテ・アルタ市、リオ・ダ・コンセイソン市、サン・フェリックス市、マテイロス市の対象4市において、市環境・観光審議会(COMATUR/COMTURMA)に関する制度がプロジェクトの支援により整えられ(具体的には、審議会メンバー任命に関する条例や審議会内規承認など)、2012年7月までに4市において COMATUR/COMTURMA が活動を開始した。

ICMS Ecologico (環境保全交付金)の適正利用に関する合意書が、4 市の COMATUR/COMTURMA と市長の間で 2012 年 10 月に署名された。これによって ICMS Ecologico の特定の割合が COMATUR/COMTURMA の活動に使えることとなった (ポンテ・アルタ 50%、リオ・ダ・コンセイソン 30%、マテイロス 20%、サン・フェリックス 25%)。

サン・フェリックス市では、2011 年に SMUC が成立した。これによって市による保護区の設置が可能となった。2012 年 7 月 2 日のサン・フェリックス市長の署名により、SMUC に基づくソノ川沿いの市立自然遺跡(MONA)のための市条例 No 034/2012 が成立、トカンチンス州で初めての市立保護区が設立された。

ICMBio の省令 No. 45/2012 に基づき、2012 年 4 月に、EESGT 審議会が正式に登録 (承認) された。EESGT の管理事務所 (リオ・ダ・コンセイソン) は、プロジェクト 実施前には住民とのかかわりがほとんどなかったが、プロジェクトの支援により地域における協働体制が構築されることとなった。

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¹⁰ ICMS Ecologico は、市による保護区の保全管理を促すための州利益分配の仕組みである。その財源は、州税である ICMS (商品・サービス流通税) である。

今後プロジェクトの残りの期間に実施される活動としては、1) 市立保護区(MONA) に関する管理計画の作成、2) 保護区域の間の生態系の連続性を維持するためのサン・フェリックス市の詳細地理データの完成、3) ICMS Ecologico 紹介マニュアルの改訂に関するトカンチンス州政府への支援がある。

5) 成果 5 JREC 保全のための戦略文書/ガイドラインが作成される。

戦略文書/ガイドラインはほぼ完成し、プロジェクト終了までの完成を見込んでいる(指標 5.1)。ついては、本成果はプロジェクト終了までにほぼ達成の見込みである。

指標に関する説明は以下の通りである。

・ 指標 5.1 JREC 保全のための「状況分析と妥当性分析」「戦略的アクションプラン」 「運用ガイドライン」が作成される。

「ジャラポン・モザイク」戦略計画の作成については、第1部(診断と妥当性)、第 II 部(活動計画)は終了時評価実施時点で既に完成している。一方、第 III 部(運営ガイドライン)についてはプロジェクト終了までに完成を見込む。内容に関する合意形成に向けたワークショップがブラジリアで実施予定である。

終了時評価以降に実施される活動としては、1) 戦略計画検討のためのワークショップ、2) ICMBio 及び協力機関(Naturatins や INEMA など)による戦略計画の承認と発行がある。

2-3 プロジェクト目標の達成見込み

プロジェクト目標:ジャラポン地域で生態系コリドーを導入・実施するため、ICMBioの体制が強化される。

JREC 導入と実施に向けた関係機関の連携強化に当たり、ICMBio の調整によって、JREC 導入と実施のための「戦略文書」が関係機関から同意を得つつほぼ完成しており(指標 1)、生物多様性保全を促進するための多数の機関が連携する体制を構築している(指標 2)ことから、プロジェクト目標はプロジェクト終了までに達成の見込みである。

指標に関する説明は以下の通りである。

・ 指標 1 ICMBio の調整により、JREC 導入と実施のための「戦略文書」が関係機関から同意を得る。

「ジャラポン・モザイク」戦略計画については、関係者の参加と合意を得ながら策定中 であり、プロジェクト終了までの完成を見込んでいる。

・ 指標 2 ICMBio の調整により、ジャラポン地域で生物多様性保全を促進するためのメカニズムが構築される。

本プロジェクトの目標としているジャラポン地域で生態系保全を実施するための「体制」とは、1)連邦・州の関係機関が組織的な連携を促進するための枠組み(成果 2 および成果 3 に対応)、2)連邦・州の関係機関が連携して保全に取り組むための指針(成果 1、成果 3、成果 5 に対応)、そして 3)ジャラポン地域の多様なアクターが保全に参加するための基盤(成果 3、成果 4 に対応)と定義されている。また、これら体制を構

成する要素については、プロジェクトにより各成果として実現されてきている。したがって、ジャラポン地域で生物多様性保全を促進するためのメカニズムは構築されているといえる。

2-4 上位目標の達成に向けた進捗

上位目標:生態系コリドー導入によりジャラポン地域の生態系保全が促進される。

・ 指標 JREC 導入と実施のための「戦略文書/ガイドライン」が適用される。

「ジャラポン・モザイク」が環境省により正式に登録され、モザイク審議会の設立と戦略計画の承認が環境省により行われれば、戦略計画の実施が始まることになる。 なお、「ジャラポン・モザイク」は終了時評価時点では環境省による審議に入っている。プロジェクトにより構築された生物多様性保全メカニズムは、上位目標となっているジャラポン地域の生態系保全の促進に役立つことが期待される。

2-5 実施プロセス

ジャラポン地域は、ブラジル東北部 4 州(トカンチンス州、バイア州、マラニョン州、ピアウイ州)16 市に広がっている。プロジェクトの活動としては、ブラジリア(ICMBio 本部)、パルマス(トカンチンス州政府機関 SEMADES、NATURATINS、SEPLAN)、サン・フェリックス(対象市)、マテイロス(対象市および PEJ)、リオ・ダ・コンセイソン(対象市および EESGT)、ポンテ・アルタ(対象市)および PNNRP にまたがっている。日本側専門家チームは、ブラジリアの ICMBio 本部と、リオ・ダ・コンセイソンの EESGT 事務所に拠点を置き、これらの広範な地域の活動をカバーする効果的プロジェクト実施・運営のために、現地スタッフと現地コンサルタントを雇用している。

第3章 5項目による評価

3-1 妥当性

プロジェクトの妥当性は高い。

- 1) MMA 及び ICMBio にとって、セラード、特にジャラポン地域の保全に関する政策的重要性は、プロジェクト開始当初から変わっていない。MMA はセラードを優先保全地域としており、2005 年 11 月「持続的セラードプログラム」や 2010 年 9 月「セラードの森林伐採・火災の予防・管理のための活動計画」等の施策によりセラードの生態系保全に取り組んできた。次回「セラードの森林伐採・火災の予防・管理のための活動計画」を改訂する際は、MMA は「ジャラポン・モザイク」の取組み例を反映させたいとしている。このように、ジャラポン地域は ICMBio と MMA にとって優先度の高い保全地域の 1 つであり、プロジェクトはこうした関連政策に合致している。
- 2) ICMBio 及びジャラポン地域の関係機関は、ジャラポン地域内の全ての保護区の取組みを調整し効果的な生態系保全につながるメカニズム構築の必要性を認識している。プロジェクトは、ジャラポン・モザイクの設立を進めることでこうした関係機関のニーズに応えている。さらに、今回の終了時評価調査で訪問した対象 4 市の関係者インタビューによって、地域の豊かな自然環境を利用したエコツーリズムの実施が現地の主要な経済活動であり、よって対象 4 市は観光促進のためにも自然保護に積極的であることが確認できた。プロジェクトは、対象 4 市のエコツーリズムの支援と貴重な自然遺産を保全するための能力強化を進めることで、こうしたニーズに応えている。このように、プロジェクトは連邦、州、市の各レベル関係機関の開発ニーズも満たしている。
- 3) 日本のブラジルに対する ODA 事業展開計画 (2011 年 6 月付) は、環境保全を重点分野の 1 つとしており、土地利用、土地利用変化及び林業部門 (LULUCF) がブラジルの温室効果ガス排出量の 4 分の 3 を占めるとされていることから、森林保全は、気候変動対策の 観点からも重要であるとしている。セラードを含むブラジルの貴重な動植物が開発活動により脅かされているとの認識の下、ODA 事業展開計画の中では、本プロジェクトは環境保全重点分野のなかの気候変動プログラムの中に位置づけられている。このように、 本プロジェクトは日本のブラジルに対する ODA 政策とも整合している。

3-2 有効性

プロジェクトの有効性は高い。

1) プロジェクトは、上記「2-2 プロジェクトの進捗と実績」で確認したように、終了時評価の時点ですでに成果のほとんどを達成している。これらの 5 つの成果は、ジャラポン地域の生物多様性保全を促進するメカニズムにとって必要不可欠なコンポーネントであり、JREC 実施に必要な情報が収集、分析、整理(成果 1) され、組織的な連携の構築(成果 2) がなされることで、連邦・州・市等雑多な行政機関側の一体化が可能となる。一方現場住民レベルでも地域住民との連携が強化(成果 4) され、行政・住民の連携を強化する。行政の一体化・住民との連携という基礎の上に JREC の実施に必要な能力向上がなされた ICMBio 職員(成果 3) がリーダーシップをとり JREC の

実施推進を行い、戦略文書/ガイドラインを作成する(成果 5)。この一連の成果達成により、プロジェクト目標(ジャラポン地域で生態系コリドーを導入・実施するため、ICMBioの体制が強化される)を達成できるよう効果的に組み立てられている。

2) プロジェクト目標指標 1 (ジャラポン・モザイク戦略計画の関係機関による同意) については、戦略文書はほぼ完成しているが、この認可等による具体的な活用が今後の重要な課題である。終了時評価の時点では、2012 年 9 月に提出された設立に関するプロポーザルに基づき、ジャラポン・モザイクは、MMA により正式に認知される見通しである。正式に認知・登録されれば、ジャラポン・モザイク審議会の設立と戦略計画の承認及び実施が求められる。戦略計画はこれまで予想される審議会メンバーや関係者の意見を取り入れつつ参加型により作成されていることから、審議会による合意は得られる見込みである。

3-3 効率性

プロジェクトの効率性は高い。

- 1) プロジェクト開始時の PDM は、その後 2011 年 5 月 5 日に改訂された。プロジェクト の活動は、改訂後の PDM と PO にそって実施され、プロジェクトの実施について目立った遅れはなかった。 PDM については十分に C/P に理解されているだけでなく、プロジェクトの計画・モニタリングのためのツールとして効果的であると認識されており、ジャラポン・モザイク戦略計画の中のアクションプランが PDM のフォーマットを用いて記載されている。
- 2) 日本側の投入(専門家の派遣、設備供与、本邦研修)はプロジェクト活動に効果的に利用され、ブラジル側からは高い評価の声が聞かれた。日本人専門家はポルトガル語を話すことで、連邦・州の C/P、さらにはコミュニティの人々とのより良いコミュニケーションを実現しており、プロジェクト実施の高い効率性に寄与している。
- 3) 定期的、日常的な日本人専門家と C/P との間のコミュニケーションは極めて良好である。これまで JCC は 4 回開催(2010 年 4 月、2011 年 5 月、2011 年 12 月、2012 年 5 月)され、この他に定期的な C/P 会議(2010 年 5 月から 2012 年 8 月までの間で 10 回)が開催されている。日本人専門家は、頻繁にパルマスを訪問することで、ICMBio と州政府 C/P の間の調整・協働を担保した。パルマスに支部を持たない ICMBio にとって、このことはプロジェクトを円滑に実施するうえで大きな促進要因となったことの言及があった。
- 4)「2-2 プロジェクトの進捗と実績」において記載したように、本件協力にてアウトプットは各成果についておおむね順調に達成されており、もっとも効率的な状況で各成果が達成されるために PDM の内容検討と改訂〔上記 1)〕、連邦、州、市の C/P 等とのコミュニケーションを重視した日本側投入〔上記 2)〕、C/P 会議等正式会合の十分な開催・実施〔上記 3)〕によりプロジェクトにとって必要かつ十分な投入が現地のニーズに応じて常に調整されて行われたことから、効率性は高いと判断する。

3-4 インパクト

プロジェクトのインパクトは高い。

- 1) プロジェクトにより構築された「ジャラポン・モザイク」を含む生態系保全メカニズムが持続し発展していくにあたり、バイア州が参加したことは、ジャラポン地域のバイア側がより農業開発の圧力に晒されている事実を考えれば極めて重要である。「ジャラポン・モザイク」が正式に発足して活動を開始すれば、上位目標達成の見込みは更に高くなるものと期待される。
- 2) その一方で、ジャラポン・モザイクの運営・実行能力を確実なものにするためには、2013 年 4 月までの残り期間で、ジャラポン・モザイク審議会のメンバーが戦略計画を遂行し、活動を実施していけるようになるための能力強化をプロジェクトとして行うことは難しい。ジャラポン・モザイクとしてある程度の期間活動することで、構築されたメカニズムと戦略計画の改善に向けたフィードバックが出てくることも考えられる。また、プロジェクト残り期間の優先活動の1つは、バイア州における新たな保護区の設置に向けた地方レベルでの交渉を支援することである。こうしたことから、多くのプロジェクト関係者よりプロジェクト期間の延長の必要性が強調された。
- 3) PDM 内の活動以外でも、プロジェクトの実施に伴ういくつかのインパクトが見られる。例えば、EESGT/ICMBio と EULP/ULBRA のイニシアティブにより、両者の間で環境教育プログラム (ASAS) を推進していくための技術協力協定書が 2011 年 4 月 11 日に署名された。協定書に基づく CEULP からの投入は、ASAS の活動実施にとって大きな支援となっている。ASAS については、トカンチンス州教育局は州内の他市にも広げていくことを表明している。さらに、ICMBio は、戦略計画の実行のためにバイア州とも協定書の署名を交わす予定としている。
- 4) 上位目標の達成に向けては、他の援助機関が実施しているプロジェクトとの協調・協働も図っていくことが求められる。BMU/GIZ/KfW の支援による「セラードにおける森林火災および不法伐採の防止・管理・モニタリング」プロジェクト(2012 年~2015年)がジャラポン地域で実施されており、保護区管理の向上、火災の減少、延焼面積の自動定量的把握のための技術開発などの活動が進められている。プロジェクトのいくつかの成果・活動の持続性確保に向けて、ICMBio は BMU/GIZ/KfW プロジェクトの技術協力を活用していくことを既に決定している。
- 5) MMA は、生物多様性保全に向けて「モザイク」を積極的に進めたい考えであり、「ジャラポン・モザイク」を「モザイク」システムの優良事例として、既存の他の 13 のモザイク、および今後設立される新たなモザイクへ適用していくことを見込んでいる。
- 6) プロジェクトにおける専門家、機材、研修等の投入により、上記「3-3 効率性」でも記載したようにアウトプットを構成する 5 つの成果はおおむね達成されている。プロジェクト目標レベルとしてはほぼ達成と判断してよいが、「生態系コリドー導入によりジャラポン地域の生態系保全が促進される(上位目標)」のために本件プロジェクトと隣接しジャラポンと同等の自然条件にある近隣州(特にバイア州)にも活動を拡大する。併せて〔上記 1)及び 3)〕、ジャラポン・モザイク審議会結成に係る支援〔上記 2)〕や他プロジェクトとの協力〔上記 4)〕など本件協力で実施した活動の継続あるいは拡大が必要である。この結果を今後の新規モザイク結成〔上記 5)〕につなげることにより、ジャラポン・モザイクがシステムの優良事例として確立し、ジャラポン地域の生態系保全が確実に促進されていることが明示可能となる。これら上記

1) から 5) の活動については終了時評価時点で、プロジェクト終了後 5 年で達成可能 と判断する。

3-5 持続性

プロジェクトの持続性の見込みは、現時点では中程度である。

- 1)制度的な観点からは、プロジェクトの持続性の見込みは高い。ジャラポン生態系コリドー協定書第 06/2011 号、COMATUR/COMTURMA メンバーの任命および内規策定にかかる市条例、サン・フェリックス市 MONA 設立のための市条例 No 034/2012、EESGT 審議会の登録のための ICMBio 省令第 No 45/2012 号など、プロジェクトにより構築された統合的な保全メカニズムは、法律および関係機関の間の合意文書など、法・制度の整備を伴っている。対象 4 市において、市長と COMATUR/COMTURMA の間で合意文書が署名され、ICMS Ecologicoの一定割合を COMATUR/COMTURMA が自由に使えるようになったことは、COMATUR/COMTURMA の活動活発化への大きな動機づけ・インセンティブである。さらに、プロジェクト終了時までに期待される「ジャラポン・モザイク」の正式登録は、プロジェクト効果の持続性に向けた最も大きな成果である。
- 2) 技術的な観点からの持続可能性の見込みは、成果により異なる。ジャラポン地域生態系管理のための情報システム(成果 1)、ICMBio 及び州政府機関の C/P の技術力(成果 3)は持続する可能性は大きい。一方、戦略計画に基づく「ジャラポン・モザイク」の技術的な管理能力の強化(成果 2 および成果 5)については、今後の持続性の担保のためには、研修の実施や審議会メンバーが実際の運営経験を積んでいくなど、もう少しプロジェクトとして時間をかけることが必要である。また対象 4 市については、COMATUR/COMTURMA の計画・実施能力、組織・財務能力の強化のための研修が 2011年に集中的に実施され、2012年10月26日には、「成果 4」に関する総括セミナーが開催された。しかしながら、COMATUR/COMTURMAについても、今後の持続性を担保のため、もう少し時間をかけて実際の運営・経験を積んでいく間、プロジェクトとしてのモニタリングが必要と考えられる。
- 3) 人材的な観点からは、今後の連邦・州政府および市の職員の人事異動への懸念はあるが、プロジェクトはこうした懸念に対して、技術マニュアル、研修テキスト、引継文書などを準備することで、部分的に対応することは可能である。
- 4) 財政的な観点からの持続可能性の確保は大きな課題である。ICMBio は、プロジェクトにより作成された資料の複製または新しい資料の作成は予算的に難しいとしている。また、ジャラポン・モザイクは、連邦・州政府の職員だけでなく、市職員、市民社会・NGO そして民間企業からの代表も参加することになるが、こうしたメンバーの審議会出席のための旅費については、必ずしも政府予算でカバーされるわけではない。このため、「ジャラポン・モザイク」の運営経費を抑えるとともに、維持管理と活動実施に適した財務計画を作成することが重要である。EESGT 審議会についても、異なった市の様々なメンバーが関わっていることから、同様の課題を抱えている。こうした審議会に出席するための旅費については、ICMS Ecologico の利用も検討していく必要がある。

第4章 終了時評価の結果

4-1 結論

ジャラポン地域の生態系保全は、MMA および ICMBio の政策と合致しており、その生物多 様性ホットスポットとしての国際的重要性からも、プロジェクトの妥当性は高い。プロジェ クトは効果的に組み立てられており、プロジェクト期間中のプロジェクト目標達成も見込め ることから、プロジェクトの有効性は高い。日本人専門家とブラジル側 C/P の双方の努力と、 関係機関の間の効果的で円滑なコミュニケーションにより、プロジェクトは効率的に実施さ れている。プロジェクトの終了後に上位目標が達成される見込みは十分あり、その他にもプ ロジェクト実施に関連するいくつかの活動も起こっていることから、プロジェクトのインパ クトは高い。持続可能性の現時点での見込みは中程度であり、これは技術的・人材的・財務 的な観点からは若干の懸念が見られるためである。ジャラポン・モザイクの運営・実行能力 を確実なものにするために 2013 年 4 月までの残り期間で、ジャラポン・モザイク審議会のメ ンバーが戦略計画を遂行し、活動を実施していけるようになる能力強化をプロジェクトとし て行うことは、準備そのものの期間が不足するだけでなく、ジャラポン・モザイクとしてあ る程度の期間活動することにより同活動に係る課題への対応などについて支援する事も重要 である。また、農業圧力が強化されているバイア州における新たな保護区の設置に向けた地 方レベルでの交渉を支援することが重要であることから、本分野での協力の継続は効果拡大 に重要になると判断する。

4-2 提言

1) プロジェクト協力の継続

プロジェクトは予定終了期間内にプロジェクト目標の達成は確認できるものの、「インパクト」および「持続可能性」における評価結果を踏まえて、プロジェクトは今後次の努力を行っていく必要がある。(1)上位目標の達成に向けて、「ジャラポン・モザイク」審議会メンバーの能力強化と戦略計画の優先分野の実施支援により、バイア州での新たな保護区設置のための地域交渉を含む「ジャラポン・モザイク」の制度的な能力を確かなものにすること、(2)「ジャラポン・モザイク」審議会および COMATUR/COMTURMA の能力強化を進め、プロジェクトの持続性を向上させること。こうした課題を踏まえて、調査団はプロジェクトのインパクトと持続性を向上させることを目的とする新プロジェクトの実施などを提言する。

2) 「ジャラポン・モザイク」立ち上げにおける ICMBio のリーダーシップ

プロジェクト期間の延長の有無に関わらず、「ジャラポン・モザイク」の正式発足後は、ICMBio は「ジャラポン・モザイク」に係る活動実施の調整に関するリーダーシップをとること。特に、ジャラポン地域の対象 4 市は生態系保全活動を今後実施していくための支援を必要としていることから、ICMBio はこのような市に「ジャラポン・モザイク」のメカニズムを通して求められる支援を提供していくことを踏査団は提言する。

4-3 教訓

- 1) プロジェクトの活動は、C/P の組織内における役割・責任と良く合致していたことから、 プロジェクト活動を通常業務の一部として取り組むことが出来た、と連邦・州の C/P よ り言及があった。C/P の本来業務とプロジェクト活動との一致は、本プロジェクトの高 い有効性・効率性に貢献している。
- 2) 改訂 PDM は、3 年の協力期間を見据えて実現可能で現実的な目標・成果・対象市の数を 設定し、効果的なプロジェクトの実施につながった。プロジェクトが成功するためには、 地域の現状を踏まえた現実的で良い PDM を準備することが重要である。
- 3) プロジェクトは、これまで柔軟かつタイムリーに管理(例えば、PDM 改訂、活動スケジュールの変更、迅速な意思決定など) されている。これについては、プロジェクト・マネジャーに意思決定の権限があったこと、フィールドや関係機関の事情を良く知っている JICA 在外事務所が主管したことが大きい。
- 4) プロジェクトは、地方のパートナーや利害関係者との対話に多くの時間と努力を注ぐことで、円滑なプロジェクト実施を実現している。こうした対話努力がプロジェクトの計画段階からなされていれば、プロジェクトは一層効率的に実施できた可能性もある。

添付資料

- 1. PDM (Ver 2)
- 2. PO
- 3. 調査団の派遣日程
- 4. Minutes of Meeting
- 5. Joint Terminal Evaluation Report
- 6. Evaluation Grid (Information and data for the 5 criteria)
- 注)以下の資料については、添付資料 5 の Joint Terminal Evaluation Report を参照のこと
- ・面談者リスト
- ・専門家の派遣
- 本邦研修
- 資機材供与
- ・カウンターパートの配置
- 現地業務費
- ・成果グリッド1(指標に照らした実績)
- ・成果グリッド2 (活動レベルの進捗度)

添付 1: PDM (Ver.2)

実施期間: 3年間

実施機関: シコメンデス生物多様性保全院(ICMBio)

対象地域: ジャラポン地域(セハ・ジェラル生態系ステーションとパルナイバ河上流域国立公園の間の地域) 受益者: ジャラポン地域で活動する行政機関(連邦・州・市)、NGO、地域住民、住民組織、民間セクター

Version 2, 05.05.2011

| プロジェクトの要約 | 指 標 | 指標データ入手手段 | 外部条件 |
|--|---------------------------------|-------------------|-----------------|
| 上位目標: | | | |
| 生態系コリドー導入によりジャラポン地域の生態系保全が促進される。 | JREC 導入と実施のため「戦略文書/ガイドライン」が適用 | 1. 評価調査 | 生態系コリドーが関係機関の |
| | される。 | | 間で戦略的かつ政策的な優先 |
| | | | であることが継続する。 |
| プロジェクト目標: | ICMBio の調整により、JREC 導入と実施のための「戦略 | | |
| | 文書」が関係機関から同意を得る。 | 1. プロジェクト報告書 | ジャラポン地域の保護区での |
| ジャラポン地域で生態系コリドーを導入・実施するため、ICMBioの体制が強化さ | | 2. 評価調査 | JREC 実施に対する環境省の |
| れる。 | ICMBio の調整により、ジャラポン地域で生物多様性保全 | | 支援と優先が継続する。 |
| | を促進するためのメカニズムが構築される。 | | |
| 成果: | 1.1 収集情報を整理したデータベースが作成さる。 | | |
| 1. 自然保護区のバッファーゾーンを含むジャラポン地域生態系コリドー(JREC)実 | 1.2 ICMBio ウェブサイト内に設置されたプロジェクトホ | 1.1 データベース | 関係機関の協力体制が大幅に |
| 施に必要な情報が収集、分析、整理される。 | ームページが少なくとも年4 回更新される。 | 1.2 ICMBio ホームページ | 変わらない。 |
| 2. JREC 実施のための組織的な連携が構築される。 | 1.3 JREC 実施に必要な情報が関係機関の間に発信され共 | 1.3 情報共有資料 | |
| 3. JREC の実施に必要なICMBio 職員及び関係機関職員の能力向上が実施される。 | 有される。 | 1.4 プロジェクト報告書 | |
| 4. JREC 保全に関する関係機関と地域住民との連携が強化される。 | 1.4 情報共有資料が作成される。 | | |
| 5. JREC 保全のための戦略文書/ガイドラインが作成される。 | 2.1 JREC 実施に資する協力連邦・州間環境協力協定書に関 | 2.1 協力連邦・州間環境協力協定 | |
| | して、関係機関から組織的な同意を得る。 | 書 | |
| | 2.2 JREC 実施のための関係機関との会議が少なくとも年3 | 2.2 会議記録 | |
| | 回実施される。 | | |
| | 3.1 関係機関も含めて、研修、視察などの能力向上のため | 3.1 プロジェクト報告書 | |
| | の活動が、プロジェクト期間中少なくとも2 回実施さ | 3.2 セミナー報告書 | |
| | れる。 | | |
| | 3.2 JREC 保全のためのセミナーが、プロジェクト期間中少 | | |
| | なくとも2 回実施される。 | | |
| | 4.1 地域住民を対象とした研修が、プロジェクト期間中少 | 4.1 研修報告書 | |
| | なくとも2 回実施される。 | 4.2 プロジェクト報告書 | |
| | 4.2 関係機関の支援によって、自治体の環境関連条例が強 | | |
| | 化される。 | 5.1 戦略文書 | |
| | 5.1 JREC 保全のための「状況分析と妥当性分析」、「戦略 | | |

| | 的アクションプラン」、「運用ガイドライン」が作成 | | |
|--|---------------------------|--------------------|------------------|
| | される。 | | |
| 活 動: | 投 入: | 投 入: | |
| | (日本側) | (ブラジル側) | |
| 1.1. ブラジルの生態系コリドーに関連した情報を収集する。 | 専門家 | - カウンターパート(ICMBio本 | ICMBio と予算が政変により |
| 1.2. 生態系モニタリングに必要なベースライン情報を収集する。 | - 生態系保全、組織強化、参加型資源管理、業務調整 | 部、セハジェラル生態系ステーシ | 大きな影響を受けない。 |
| 1.3. 情報共有資料を作成し、プロジェクト関連情報を適切なメディアを通じて普及 | その他 | ョン- プロジェクト専属要員2 | |
| する。 | - 現地専門家 | 名、パルナイバ河上流域国立公 | 対象地域のステークホルダー |
| | ・参加型開発、モニタリング及びその他活動 | 園) | がプロジェクト活動に積極的 |
| 2.1 プロジェクトC/P 間の定期会議を開催し、プロジェクト運営について議論し促 | - 本邦研修 (計6 名) | - ブラジル国内研修 | に協力する。 |
| 進する。 | - 現地活動費 | - 執務設備 | |
| 2.2 関係機関の役割と活動を定義し協力連邦・州間環境協力協定書を作成する。 | - 供与機材 | - 通信手段 | |
| 2.3 協力連邦・州間環境協力協定書が、関係機関から組織的な同意を得る。 | ・車両 | - 秘書、運転手 | |
| 2.4 協力連邦・州間環境協力協定書の内容に準拠して、関係機関の参加した会議を | ・GIS 機材 | - 現地活動費 | 前提条件 |
| 実施する。 | ・必要資材 | - インフラ | ICMBio がプロジェクト実施 |
| | | | に必要な人員と予算を確保す |
| 3.1 ICMBio 及び関係機関職員の研修に必要なテーマを特定する。 | | | る。 |
| 3.2 ICMBio 及び関係機関職員に対する研修を計画し実施する。 | | | |
| 3.3 研修受講者が行う活動に対するフォローアップを実施する。 | | | |
| 3.4 JREC 保全に関するセミナーを実施する。 | | | |
| 4.1 地域住民に対して、プロジェクトの情報を伝達する。 | | | |
| 4.2 地域住民が必要としている研修のテーマおよび方法を特定する。 | | | |
| 4.3 地域住民に対して自然資源の適切な利用に資する研修等を実施する。 | | | |
| 4.4 研修を受講した地域住民に対しフォローアップを実施する。 | | | |
| 5.1 JREC 導入と実施に必要な戦略を定義する。 | | | |
| 5.2 JREC 導入と実施のための方法と活動を定義する。 | | | |
| 5.3 JREC 導入と実施のための戦略文書/ガイドラインを関係機関の参加を得て作成 | | | |
| する。 | | | |

2012年10月時点

| 活動 | I | | | | | 2010 |) 年度 | F | | | | | 1 | | | | | 2011 | 年 6 | F | | | | | | | | | | 2012 | 年度 | | 012 牛 | - 10 |)1 H/J | <i> </i> |
|--|---|---|---|----|----------|------|----------|----|----|---|---|----|---|---|---|---|---|------|---------|----|----|---|---|---|---|---|---|---|---|------|----|----|-------|---------------|----------------|----------|
| 111 297 | 4 | 5 | 6 | 7 | 8 | 1 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | T | 1 | T | 11 | 12 | , | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | , | $\overline{1}$ | 3 |
| | 4 | 3 | 0 | / | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 3 | 0 | / | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 3 | 0 | / | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |
| 1.1 ブラジルの生態系コリドーに関連した情報を収 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 集する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 生態系モニタリングに必要なベースライン情報 | | | | - | \vdash | | \vdash | - | | | | | | + | | _ | | | | | | | | | | | | | | | | | | | | |
| を収集する。 | | | | | | | | _ | | | | | | | | | | | \perp | | | | | | | | | | | | | | | \perp | \rightarrow | |
| 1.3 情報共有資料を作成し、プロジェクト関連情報を適切なメディアを通じて普及する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1 プロジェクト C/P 間の定期会議を開催し、プロ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ジェクト運営について議論し促進する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 関係機関の役割と活動を定義し協力連邦・州間環 境協力協定書を作成する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.3 協力連邦・州間環境協力協定書が、関係機関から | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 組織的な同意を得る。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.4 協力連邦・州間環境協力協定書の内容に準拠し | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| て、関係機関の参加した会議を実施する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1 ICMBio 及び関係機関職員の研修に必要なテー | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| マを特定する。 | | | | | | | | • | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2 ICMBio 及び関係機関職員に対する研修を計画 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| し実施する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3 研修受講者が行う活動に対するフォローアップ | | | | | | | | | | | | | | | | | | | | | Ļ | | | | | | | | | | | | | | | |
| を実施する。 | | ļ | | | | | | ļ | | | | | | | | | | | | | | | | | | | | | | | | | | \rightarrow | \rightarrow | |
| 3.4 JREC 保全に関するセミナーを実施する。 | | ļ | | | | | | _ | | | | | | | | | | | - | - | | | | | | | | | | _ | | | | | | |
| 4.1 地域住民に対して、プロジェクトの情報を伝達す | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| る。 | | | | | | | | _ | | | | | | | | | | | | | | | | | | | | | | | | | | | _ | |
| 4.2 地域住民が必要としている研修のテーマおよび 方法を特定する。 | | | | | | | | | | | | | _ | | | | | | | | | | | | | | | | | | | | | | | |
| 4.3 地域住民に対して自然資源の適切な利用に資す | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| る研修等を実施する。 | | | | | | | | | | | | | | | | - | | | | | ł | | | | | | | • | | | | | | | | |
| 4.4 研修を受講した地域住民に対しフォローアップ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| を実施する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1 JREC 導入と実施に必要な戦略を定義する。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.2 JREC 導入と実施のための方法と活動を定義す | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| る。 | | | L | Ш. | | | | | | | | Ш. | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.3 JREC 導入と実施のための戦略文書/ガイドライ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ンを関係機関の参加を得て作成する。 | | | | | | | | | | | | | | | | | | | | + | | | | | | | | • | | | | | | | | |

網掛け部はプロジェトの活動を、実線部は日本人専門家の活動時期を示す。

付属資料3

添付 3: 調査団の派遣日程

| # | 日程 | | 調査団 総括(佐藤) | 調査団 協力企画(駒沢) | 調査団 評価分析(奥田) |
|----|--------|---|--|----------------------------|-------------------------------------|
| 1 | 10月14日 | 目 | | | 日本発 |
| 2 | 10月15日 | 月 | | | ブラジル着 |
| | | | | | 14:00JICA 事務所打合せ |
| 3 | 10月16日 | 火 | 09:00 評価団内打合せ(於 ICMBio) | 09:00 評価団内打合せ(於 ICMBio) | 09:00 評価団内打合せ(於 ICMBio) |
| | | | 10:00 ICMBio 打合せ(PM・技官いい) | 10:00 ICMBio 打合せ(PM・技官い゛ル) | 10:00 ICMBio 打合せ(PM, 技官い ル) |
| | | | 14:00 環境省で情報収集 | 14:00 環境省で情報収集 | 14:00 環境省で情報収集 |
| | | | 16:00 ICMBIO 部長表敬 | 16:00 ICMBIO 部長表敬 | 16:00 ICMBIO 部長表敬 |
| 4 | 10月17日 | 水 | ICMBio で情報収集 | ICMBio で情報収集 | ICMBio で情報収集 |
| | | | | 15:46 パルマスへ移動(17:00 着) | 15:46 パルマスへ移動(17:00 着) |
| 5 | 10月18日 | 木 | | 9:00 州環境局(SEMADES)長官表敬 | 9:00 州環境局(SEMADES)長官表敬 |
| | | | | 9:30 SEMADES 関係者聞き取り | 9:30 SEMADES 関係者聞き取り |
| | | | | 15:00 州環境庁(NATURATINS)総裁表敬 | 15:00 州環境庁(NATURATINS)総裁表敬 |
| | | | | 15:30 NATURATINS 関係者聞き取り | 15:30 NATURATINS 関係者聞き取り |
| | | | | (終日) | (終日) |
| 6 | 10月19日 | 金 | 7:30 S.Felix 〜移動(13:00 着) | ブラジリアへ移動 | 7:30 S.Felix へ移動(13:00 着) |
| | | | 14:00 S.Felix 市役所聞き取り | | 14:00 S.Felix 市役所聞き取り |
| 7 | 10月20日 | 土 | 8:00 Mateiros ~移動(9:30 着) | | 8:00 Mateiros へ移動(9:30 着) |
| | | | 10:00 Mateiros 市役所聞き取り | | 10:00 Mateiros 市役所聞き取り |
| | | | 州立公園関係者聞き取り | | 州立公園関係者聞き取り |
| | | | 14:00 Ponte Alta ~移動(18:00 着) | | 14:00 Ponte Alta 个移動(18:00 着) |
| 8 | 10月21日 | 日 | 9:00 公園管理委員会会議視察 | | 9:00 公園管理委員会会議視察 |
| | | | 生態系ステーション関係者聞き取り | | 生態系ステーション関係者聞き取り |
| | | | 14:00 Rio de Conceicao へ移動(17:00 着) | | 14:00 Rio de Conceicao へ移動(17:00 着) |
| 9 | 10月22日 | 月 | 8:00 環境教育技術交流 WS 視察 | | 8:00 環境教育技術交流 WS 視察 |
| | | | 生態系ステーション関係者聞き取り | | 生態系ステーション関係者聞き取り |
| | | | Rio de Conceicao 市役所関係者聞き取り | | Rio de Conceicao 市役所関係者聞き取り |
| | | | 14:00 パルマスへ移動(18:30 着) | | 14:00 パルマスへ移動(18:30 着) |
| 10 | 10月23日 | 火 | A STATE OF THE STA | | 9:00 州政府関係者聞き取り |
| | | | (終日) | | (終日) |
| 11 | 10月24日 | 水 | 7.1.2.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1. | | 州政府関係者聞き取り |
| | | | 14:05 ブラジリアへ移動(15:08 着) | | 14:05 ブラジリアへ移動(15:08 着) |
| 12 | 10月25日 | 木 | 11 | 報告書作成(日側協議) | 報告書作成(日側協議) |
| 13 | 10月26日 | 金 | | ミニッツ協議 | ミニッツ協議 |
| 14 | 10月27日 | 土 | | 資料整理 | 資料整理 |
| 15 | 10月28日 | 日 | 241111111111111111111111111111111111111 | 資料整理 | 資料整理 |
| 16 | 10月29日 | 月 | | ミニッツ協議 | ミニッツ協議 |
| 17 | 10月30日 | 火 | ミニッツ署名 | ミニッツ署名 | ミニッツ署名 |
| 18 | 10月31日 | 水 | | | 補足調査 |
| 19 | 11月1日 | 木 | | | ブラジル発 |
| 20 | 11月2日 | 金 | | | |
| 21 | 11月3日 | 土 | | | 日本着 |
| | | | | | |

付属資料4

MINUTES OF MEETINGS

BETWEEN

THE JAPAN INTERNATIONAL COOPERATION AGENCY

AND

AUTHORITIES CONCERNED OF

THE GOVERNMENT OF THE FEDERATIVE REPUBLIC OF BRAZIL

ON

JAPANESE TECHNICAL COOPERATION PROJECT

FOR

JALAPAO REGION ECOLOGICAL CORRIDOR PROJECT

Brasilia, Brazil, October 31th, 2012

佐藤 一朗

Mr. Ichiro Sato

Senior Representative

Japan International Cooperation Agency

(JICA)

Japan

Mallantillan

Mr. Pedro de Castro da Cunha e

Menezes

Director of Creation and Management of

Conservation Units.

Chico Mendes Institute for the

Conservation of Biodiversity

Federative Republic of Brazil

Mr.Fernando José Marroni de Abreu

Ambassador

Director

Brazilian Cooperation Agency (ABC)

Ministry of External Relations

Federative Republic of Brazil

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of the Federative Republic of Brazil organized a Joint Terminal Evaluation Team (hereinafter referred to as "the Team") composed of the Japanese Evaluation team headed by Mr. Sato Ichiro, Senior Representative, JICA, and the Brazilian Evaluation team headed by Mr. Frederico Dimas de Paiva, Projects Analyst from Brazilian Cooperation Agency (ABC), Ministry of External Relations and Mr. Fernando Antonio Rodrigues Lima, Specialist Technician, Department of Protected Areas, Ministry of Environment, for the purpose of conducting the terminal evaluation of the Japanese technical cooperation project titled "Jalapao Region Ecological Corridor Project" (hereinafter referred to as "the Project").

The Team has carried out intensive study and analysis of the activities and achievement of the Project, and prepared the Joint Terminal Evaluation Report attached hereto (hereinafter referred to as "the Report") (ANNEX1), which was presented to the Joint Coordinating Committee (hereinafter referred to as "JCC") meeting held on October 31th, 2012. After discussions on the major issues pointed out in the Report, the JCC accepted it, including the recommendations made therein.

ANNEX: Joint Terminal Evaluation Report



Joint Terminal Evaluation Report

For

The Jalapão Region Ecological Corridor Project

October 31st, 2012 Joint Terminal Evaluation Team

For Japanese Terminal Evaluation Team

Mr. Ichiro Sato

Senior Representative

Japan International Cooperation Agency (JICA)

Brazil Office

For Brazilian Terminal Evaluation Team

Mr. Frederico Dimas de Paiva

Project Analyst

General Coordination of Bilateral Technical

Cooperation,

Brazilian Cooperation Agency (ABC),

Ministry of External Relations.

Federative Republic of Brazil

Mr. Bernando Antonio Rodrigues Lima

Specialist Technician

Department of Protected Areas

Ministry of Environment

Federative Republic of Brazil

Abbreviation

| ABC | Agência Braxileira de Cooperação (Brazilian Cooperation Agency) |
|------------|---|
| ALOS | Advanced Land Observing Satellite |
| APA | Área de Proteção Ambiental (Environmental Protection Area) |
| ASAS | Agentes de Sensibilização Ambiental (Agents of Environmental Awareness Raising) |
| BMU | Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany) |
| CAOMA | Centro de Apoio Operacional do Meio Ambiente (Center for Operational Support for the Environment) |
| CEIT | Centro de Exposição e Informação Turistica (Center for Exposition and Touristic Information) |
| CERJ | O Projeto Corredor Ecológico da Região do Jalapão (the Jalapão Region Ecological Corridor Project) |
| CEULP | Centro Universitario Luterano de Palmas (Lutheran University Center of Palmas) |
| CGCAP | Coordenação Geral de Criação, Planejamento e Avaliação de Unidades de Conservação (General Coordination of Creation, Planning and Evaluation of Conservation Units) |
| COLMA | Conselho Estadual de Meio Ambiente (State Council for the Environment) |
| COMATUR | Conselho Municipal de Meio Amhiênte e Turismo (Municipal Council for the Environment and Tourism) |
| COMTURMA | Conselho Municipal de Turismo e Meio Ambiênte (Municipal Council for Tourism and the Environment) |
| DIMAN | Diretoria de Criação e Manejo de Unidades de Conservação (Directorate of Creation and Management of Protected Areas, ICMBio) |
| DMOC | Divisão de Mosaicos e Corredores (Mosaic and Ecological Corridor Division, ICMBio) |
| EF | Estação Ecológica (Ecological Station) |
| EESGT | Estação Ecológica da Serra Geral do Tocantins (Setta Geral of Tocantins Ecological Station) |
| GEF | Global Environment Facility |
| GIS/GPS | Geographic Information System / Global Positioning System |
| GIŻ | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbII (German Agency for International Cooperation) |
| IBAMA | Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renovaveis (Brazilian Institute of Environment and Renewable Natural Resources) |
| IСМВіо | Instituto Chico Mendes de Conservação da Bindiversidade (Chico Mendes Institute for Biodiversity Conservation) |
| ICMS | Imposto sobre a Circulação de Mercadorias e Serviços (Merchandise and Service Circulation Tax) |
| INCRA | Instituto Nacional de Colonização e Reforma Agrária (Nacional Institute of Colonization and Agrarian Reform) |
| INEMA | Instituto do Meio Ambiente e Recursos Hidricos da Bahia (Institute for the Environment and Water Resources of Bahia) |
| IAXA | Japan Aerospace Exploration Agency |
| CC | Joint Coordinating Committee |
| ET | Japanese Expert Team |
| ICA | Japan International Cooperation Agency |
| REC | Jalapão Region Ecological Corridor |
| ULUCF | Land Use, Land-Use Change and Forestry |
| NATURATINS | Instituto Natureza do Tocantins (Nature Institute of Tocantins) |
| M/M | Minutes of Meeting |



| MMA | Ministério do Meio Ambiente (Ministry of Environment) |
|----------|--|
| MONA | Monumento Natural Municipal |
| OECD-DAC | Organization for Economic Co-operation and Development Development Assistance Committee |
| PDM | Project Design Matrix |
| PEGAM | Programa Estadual de Gestão Ambiental Municipal (State Program for Municipal Environmental Management) |
| PEJ | Parque Estadual do Jalapão (State Park of Jalapão) |
| PN | Parque National (National Park) |
| PNNRP | Parque Nacional das Nascentes do Rio Parnaíba (Nascentes do Rio Parnaíba National Park) |
| PO | Pian of Operation |
| R/D | Record of Discussion |
| RPPN | Reserva Particular do Património Natural (Private Reserve of Natural Heritage) |
| SEMA | Secretaria de Meio Ambiente do Estado da Bahia (Bahia State Government Environmental Secretariat) |
| SEMADES | Secretaria de Meto Ambiente e Desenvolvimento Sustentável do Estado do Tocantins (Secretariat of Environment and Sustainable Development of the State of Tocantins) |
| SEPLAN | Secretaria do Planejamento e Modernização da Gestão Pública do Estato do Tocantins (Secretariat of Planning and Public Management Modernization of the State of Tocantins) |
| SMUC | Sistema Municipal de Unidades de Conservação (Municipal System of Conservation Units) |
| SNUC | Sistema Nacional de Unidades de Conservação (National System of Conservation Units) |
| ULBRA | Universidade Luterana do Brasil (Lutheran University of Brazil) |





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Chapter 1: Outlines of the Terminal Evaluation

1.1 Background

The Cerrado, situated in the Midwestern part of Brazil, is a vast tropical savannah and significantly rich in biodiversity. It is one of the most seriously threatened areas in terms of the loss of biodiversity. The Jalapäo region is located in Cerrado, being the source of major rivers such as Parnaiba River, San Francisco River, and Tocantins River, Human activities, however, such as soybean cultivation, livestock farming, harvesting of wild animals and plants are putting pressure on natural ecosystems in the region.

Under such background, the federal Government of Brazil (GOB) designated three conservation units including the Serra Geral do Tocantins Ecological Station and the Nascentes do Rio Parnaiba National Park in order to protect the nature in the Jalapão region. By connecting these conservation units by the ecological corridor and manage these units in a coordinated manner, the effectiveness of conservation can be maximized. As such, it is important to coordinate related governmental organizations at the federal, state and municipal level, NGOs and citizen groups. There was, however, a lack of coordination and integration among those related organizations.

To address such issues, the GOB requested a technical cooperation project of the Government of Japan (GOI) for ICMBio to strengthen its capacity and to assume the coordination role towards the establishment of regional conservation mechanism in Jalapão. In response to the request, JICA and ICMBio started the three-year Jalapão Region Ecological Corridor Project (hereinafter referred to as "the Project") in April 2010.

The terminal evaluation is required six months before the Project comes to an end in April 2013.

1.2 Objectives of the Terminal Evaluation

The objectives of the Terminal Evaluation are to:

- confirm the actual inputs and activities, implementation process, the degree of the achievements of the outputs, and
 the prospects of achieving the project purpose and overall goal according to the Project Design Matrix (PDM);
- assess the Project from the five evaluation criteria Relevance, Effectiveness, Efficiency. Impact, and Sustainability

 based on the JICA's guideline for project evaluation; and
- 3) make recommendations on the measures to be taken during and beyond the remaining project period in consultation with agencies concerned, and draw lessons learned for similar technical cooperation projects in future.

1.3 Members of the Evaluation Team

The members of Terminal Evaluation Team are as follows:

(Brazilian side)

| Name | Position | organization |
|--|-----------------------|--|
| Mr. Fernando Antônio Rodrigues Lima | Project Evaluation | Specialist Technician, Department of Protected Area, Ministry of Environment |
| Mr. Frederico Dimas de Paiva | Project Evaluation | Project Analyst, Coordination of Received Bilateral Cooperation, Brazilian Cooperation Agency (ABC) |





(Japanese side)

| Name | Position | Organization |
|----------------------|--------------------------|---|
| Mr. Jehiro SATQ | Japanese Team Leader | Senior Representative, JICA Brazil Office |
| Mr. Kazuaki KOMAZAWA | Project Evaluation | Project Coordinator, JICA Brazil Office |
| Mr. Hiroyaki OKUDA | Analysis & Evaluation | Tekizaitekisho LLC |
| Ms. Ilze Maeda | Interpreter | |

1.4 Schedule of the Mission

The Schedule of the mission is attached as Annex-3.

1.5 Outline of the Project

According to the PDM Ver 2 approved in the JCC meeting held in 5 May, 2011, the outline of the project is as follows (Annex 1 and 2):

(Overall Goal)

The ecosystem conservation in the Jalapão region is enhanced through the introduction of the Ecological Corridor

(Project Purpose)

The institutional capacity of ICMBio is strengthened to introduce and implement Ecological Corridor in the Jalapão region.

(Output)

- Information necessary for JREC management, including the Conservation Units buffer zones, is collected, analyzed
 and organized.
- Institutional arrangements for the JREC management are structured.
- Capacity development of personnel from ICMBio and other institutions, focused on implementation needs of the JREC, are conducted.
- 4. The linkage between local populations and institutions concerned with JREC conservation is strengthened.
- 5. The strategic plan/guideline for introducing and managing JREC is developed.

(Project Area)

Jalapão Region, i.e. connecting area between the Serra Geral do Tocantins Ecological Station and the Nascentes do-Rio Parnaiba National Park

1.6 Methodology of the Terminal Evaluation



The Terminal Evaluation is carried out in accordance with "the JICA New Guideline for Project Evaluation, Ver. 1 (June 2010)", which mainly follows "the Principles for Evaluation of Development Assistance, 1991" issued by OECD-DAC. The Project Design Matrix Version 2 which was confirmed on 5 May 2011 at JCC meeting is used as the basic reference point for the review.

As a framework to collect relevant data and information as prescribed in the JICA guideline, two types of grid – Result Grid and Evaluation Grid – were prepared in reference to reports and documents on the Project. Japanese Expert Team was asked to fill out the Result Grid and Evaluation Grid, and Brazilian counterparts to fill out the questionnaire developed according to the Evaluation Grid. During the stay, the mission team interviewed those who have been involved in the Project (federal/state counterparts and people of target municipalities) and collected information. (Annex 3 and Annex 4).

Findings and information from reports, interviews, questionnaire survey and site visits were collected and analyzed in the grids. The Team confirmed the achievements, assessed the Project based on the five criteria, made recommendations, and drew lessons learned.

The criteria used for the evaluation are the following five criteria: relevance, effectiveness, efficiency, impact and sustainability.

| Relevance | Relevance is reviewed by the validity of the Project Purpose and Overall Goal in light of Brazil's development policies and needs as well as the Japanese cooperation policy. |
|----------------|---|
| Effectiveness | Effectiveness is assessed to what extent the Project has achieved its Project Purpose, clarifying the relationship between the Project Purpose and Outputs. |
| Efficiency | Efficiency is analyzed with emphasis on the relationship between Outputs and Inputs in terms of timing, quality, and quantity. |
| Impact | Impact is assessed in terms of positive/negative and intended/unintended influence caused by the Project. |
| Sustainability | Prospect of sustainability is analyzed from institutional, financial, technical, and human resource viewpoints by examining the extent to which the achievements of the Project will be sustained after the Project is completed. |

Chapter 2: Achievements of the Project

2.1 Results of Inputs

(Japanese side)

1) Dispatch of Expert

Following the signing of R/D on 20 November 2009, the project started with the three experts dispatched in April 2010. Including the three, total seven experts were dispatched, totaling 1,573 days over the three years (including the dispatch planned in 2012). The Project also has hired local staff and consultants, who have significantly facilitated the Project implementation. (Annex 5)

2) Trainings in Japan

Three counterparts from ICMBio, inducing the Project Manager, participated in a training course in Japan in June 2011. Another training course in Japan is planned in November 2012 for three ICMBio counterparts. (Annex 6)





3) Provision of equipment

Equipment provided was procured by the JICA Brazil Office, including the two vehicles. GIS Data Server necessary for the Output 1 was initially set up in DMOC ICMBio, but later moved to SEPLAN of Tocantins, together with the Web-GIS system (software) for the Jalapão region, in June 2012, (Annex 7)

4) Local Cost

Japanese side has provided a part of necessary local expenses to carry out project activities. The expenses include local employment, totaling 77,191,000 Japanese Yen over the 3 years (the costs of the 3rd year is still an estimated cost). (Annex 9)

(Brazilian side)

1) Assignment of counterpart

Counterpart of the Project is staff of ICMBio (Federal Government) from its HQ (Brasilia) as well as its EESG1 office (Rio da Conceição) and PNNRP office (Corrente), totaling 10 staff members at the time of terminal evaluation. Staff from the State of Tocantins (SEMADES, NATURATINS, and SEPLAN) and the State of Bahia (INEMA) is also engaged in the Project as the State counterparts. (Annex 8)

2) Project Cost

ICMBio and State counterpart organizations (SEMADES, NATURATINS, SEPLAN and INEMA) have provided a part of local costs that include vehicle fuel and maintenance, hiring labors, travel expenses and other miscellaneous. The amount spent for the three years by ICMBio is 2,723,000 Brazilian Real (the costs of the 3rd year is still an estimated cost). (Annex 9)

2.2 Project Progress

Achievements and progress of the Project are examined in detail in the Result Grid 1 - Achievements based on the Indicators (Annex 10), and the Result Grid 2 - Project Progress at Activity Level (Annex 11).

1) Output 1

• The Web-GIS system developed by the Project for the Jalapão region was originally planned to be installed to ICMBio's computer network. However, ICMBio has been developing a new Web-GIS system for all conservation units under the management of ICMBio, and it was considered inefficient to have 2 independent Web-GIS systems in parallel. Therefore, it was decided after the discussions between JET and ICMBio that the data contents of the Web-GIS developed by the Project were transferred to the Web-GIS developed by ICMBio. In addition, it was also decided that the Web-GIS system developed by the Project, including all the data contents, was transferred to the Tocantins State Government for its effective utilization for the conservation and management of the Jalapão region. The Web-GIS system for the Jalapão region has been set up at http://corredorjalapao.seplan.to.gov.br/jalapao/ in SEPLAN network. At present, SEPLAN's homepage is being modified to become the portal to the Web-GIS. An official inauguration ceremony of the Web-GIS is scheduled on 9 November 2012 in Palmas. (Indicator 1.1)

- The project homepage was created at http://www.icmbio.gov.br/projetojalapao/ in ICMBio website and has been constantly updated (far more frequently than 4 times a year) with the addition of new information, news-release and publications/maps for downloads. (Indicator 1,2)
- Many kinds and types of information/promotion materials were developed and distributed, e.g. project brochures, ATLAS of Jalapão, hanners for municipalities, panels for CEIT (Mateiros) and São Félix, an environmental education book, and an educational video. (Indicator 1.3 and 1.4)
- · There are four indicators set for Output 1 and the Project has achieved all the indicators.
- Remaining activities to be undertaken include 1) revision of ATLAS of Jalapão, and 2) finalization of the data upload
 and official launching of the Web-GIS in the SEPLAN's homepage for public access.

2) Output 2

- The Reciprocity Term No.06/2011 on the introduction and implementation of lalapão Ecological Corridor was signed on 29 September 2011 by the President of ICMBio, the Secretary of MMA, the Secretary of SEMADES, the President of NATURATINS, the Secretary of SEPLAN and the Governor of the State of Tocantins. (Indicator 2.1)
- Based on the Reciprocity Term, Coordination Committee has gathered 4 times from November 2011 through August 2012. (Indicator 2.2)
- There are two indicators set for Output 2, and the Project has already achieved these two indicators as of the terminal evaluation.
- Furthermore, the Project has advanced to the creation of the "Jalapão Mosaic" agreement on the Mosaic
 participation was signed by the authorities of nine protected areas (federal, state, municipal, and private protected
 areas) in the Jalapão region by August 2012, and a proposal to establish the "Jalapão Mosaic" was submitted to
 MMA in September 2012 for its recognition by a ministerial ordinance.
- Additional activities towards the achievement of the Overall Goal include 1) follow-up towards the official recognition
 of the "Jalapão Mosaic" by MMA, 2) follow-up towards the signature of the reciprocity term between ICMBio and
 Bahia State, and 3) promotion of the establishment of the Jalapão Mosaic Council and capacity development of its
 members on the implementation of the Strategic Plan².

3) Output 3-

- Trainings for counterparts have been conducted on such areas as GPS/GIS, RPPN, prevention/control of forest fire, participatory biodiversity conservation and MONA, totaling 20 times as of the terminal evaluation, including the training in Japan. (Indicator 3.1)
- Four seminars open to the public were held. (Indicator 3.2)

² Strategic Plan is a document defined by Chapter III of the Decree No. 4:340 of 22 August 2002 that regulates SNUC (federal law of No. 9985 of 18 July 2000) and sets the guidelines/actions to harmonize, integrate and optimize the management of the "mosaic" of protected areas.



As a result of the clarifications of the concepts and definitions of "ecological corridor" and "mosaic" through the implementation of the Project and considering the definitions of terminology used in Brazil, it was determined that the concept of the term "JREC" in the PDM should be described as "Jalapão Mosaic", which is a mechanism of integrated and participatory management of protected areas. Therefore, the term, "Jalapão Mosaic", is used in this document in the same meaning as the term, "JREC".

- There are two indicators set for Output 3, and the Project has already achieved these two indicators as of the terminal evaluation.
- Remaining activities to be undertaken include 1) training in Japan scheduled to November 2012. 2) technical transfer
 on the operation and maintenance of the Web-GIS for SEPLAN staff, 3) two counterpart meetings in November 2012
 and March 2013, and 4) project final seminar in March 2013.

4) Output 4

- The municipal council for the environment and tourism has been constituted and begon operation in Ponte Alia. Rio da Conceição, São Félix and Mateiros along with the creation of the necessary legislation (COMTURMA in São Félix and COMATUR in others). The Project assisted in the definition of the membership composition and its functioning statutes. (Indicator 4.2)
- Training programs have been carried out in 2011 for the capacity development of the COMATUR/COMTURMA on planning/implementation (through the development of model projects), organizational management, and financial management (especially, regarding the utilization of ICMS Ecologico³). Also, training of school teachers about environmental education (ASAS) has been carried out in Rio da Conceição and Mateiros (2011) and in São Félix and Ponte Alta (2012) in cooperation with CEULP/ULBRA. (Indicator 4.1)
- There are two indicators set for Output 4, and the Project has already achieved these two indicators as of the terminal evaluation.
- Commitment Terms on the use of ICMS Ecológico were officially signed by mayors and representatives of COMATUR/COMTURMA at four municipalities in October 2012.
- The municipal Natural Monument was established along Soninho River on 2 July 2012 by the signing by the mayor of São Félix of the municipal decree No 034/2012 based on the SMUC.
- Furthermore, the Council of EESGT was officially registered (approved) by ICMBio's institutional ordinance No. 45/2012 in April 2012.
- Remaining activities to be undertaken include 1) completion of the management plan of the manicipal protected area
 (MONA) in São Félix, 2) finalization of the elaboration of São Félix cartographic data to be used for maintaining the
 ecological connectivity among protected areas, and 3) support to the state government of Tocantins on the revision of
 the technical orientation manual of ICMS Ecologico.

5) Output 5

- Regarding the development of the Strategic Plan for the "Jalapão Mosaic", Part I (diagnosis and justification) and Part II (action plan) were already finalized, whereas finalizing of Part III (operational guidelines) will be completed by December 2012 after building a consensus through the workshop to be held on 12-14 November 2012 in Brasilia. (Indicator 5.1)
- There is one indicator set for Output 5, and the Project has almost achieved the indicator

Circulation Tax),

JCMS Ecologico is a revenue sharing scheme, designed to promote the conservation and management of protected areas. The financial source of this scheme is a state tax, ICMS (Merchandise and Service Circulation Tax).

 Remaining activities to be undertaken include 1) the workshop in November to finalize the Part III of the Strategic Plan, and 2) the final approval of the Strategic Plan by ICMBio and partners (i.e. Naturatins and INEMA) for publication.

2.3 Progress towards the Project Purpose

- The Strategic Plan for "Jalapão Mosaic" is currently under finalizing process, thus the consensus is being built.
 (Project Purpose Indicator 1)
- The biodiversity conservation mechanism, which was defined by the Project to consist of the integration/cooperation framework among federal and state institutions (Output 2 and 3), directions of conservation efforts to be shared among concerned actors (Output 1, 3 and 5), and instruments which enable communities to participate in conservation (Output 3 and 4), has been developed. (Project Purpose Indicator 2)
- There are two indicators set for the Project Purpose, and the Project has almost achieved the 1st indicator, and has achieved the 2nd indicator as of the terminal evaluation.

2.4 Prospect of achieving the Overall Goal

- The Strategic Plan for the "Jalapão Mosaic" is still under development and its implementation will start once the Council of the "Jalapão Mosaic" is established and the Strategic Plan is approved.
- The mechanism to promote biodiversity conservation established by the Project is expected to contribute to the
 enhancement of the ecosystem conservation of the Jalapão region.

2.5 Implementation Process

• The Jalapão region covers 16 municipalities in four states (Tocantins, Bahia, Maranhão and Piaui), and the project activities range over the Brasilia (ICMBio HQ), Palmas (State Government of Tocantins – SEMADES, NATURATINS, SEPLAN), São Félix (target municipality), Mateiros (target municipality and PEJ), Rio da Conceição (target municipality and ELSG1), Ponte Alta (target municipality) and PNNRP. The Japanese expert team is based in Brasilia at ICMBio's HQ and EESGT office. The team also has hired local stail and local consultants to effectively cover these areas and activities.

Chapter 3

3.1 Relevance

The relevance of the Project is high.

1) The policy importance of conserving the Cerrado, in particular the Jalapão region, remains unchanged for MMA and ICMBio since the beginning of the Project. MMA gives a priority to the Cerrado conservation, which is promoted by such policies as "Sustainable Cerrado Program" established in Nov 2005, and "the Action Plan for Prevention and Control of Deforestation and Fires in Cerrado" established in Sep 2010. The MMA intends to incorporate the example.

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- of the "Jalapão Mosaic" into "the Action Plan for Prevention and Control of Deforestation and Fires in Cerrado" when it is revised. The Jalapão region continues to be one of the priority conservation areas of ICMBio and MMA. Therefore, the Project is aligned with the related Brazilian policies.
- 2) Both ICMBio and state organizations related to Jalapão region recognize the need for establishing an effective mechanism to facilitate concerted efforts to conserve the Jalapão region among all the conservation units in the region. The Project meets such demands through the establishment of the mechanism to promote biodiversity conservation including the "Jalapão Mosaic". Moreover, the interviews with stakeholders in 4 municipalities during the evaluation study revealed the fact that the tourism, taking advantage of the rich natural heritage, was the primary economic activity in the region and, therefore, the municipalities were motivated to conserve nature and subsequently promote tourism. The Project meets such local demands by promoting eco-tourism and building the local capacity to conserve their valuable natural heritage. Therefore, the Project fulfills the development needs of the stakeholders at the federal, state and municipal level.
- 3) Japan's ODA Rolling Plan for Brazil dated June 2011 gives a priority to the environmental conservation, recognizing the fact that Brazil's valuable flora & fauna, including those in the Cerrado, are threatened by development activities. Also, LULUCF accounts for three quarters of Brazil's greenhouse gas emission, and hence forest preservation is important in terms of fighting climate change as well. As such, in the Rolling Plan, the Project is included in the Climate Change Program under the priority area of environmental conservation. Therefore, the Project is relevant in terms of the Japanese ODA policies for Brazil.

3.2 Effectiveness

The effectiveness of the Project is high.

- 1) The Project has already delivered most of its Outputs as summarized in the "2.2 Project Progress" above. These Outputs are essential components for the mechanism to promote Jalapão's biodiversity conservation and the Project is designed effectively to achieve its Purpose by delivering these Outputs. This means the Project has achieved the Project Purpose Indicator 2.
- 2) On the other hand, according to the Project Purpose Indicator I, the current status is that the Project has not completely achieved it, yet. At present, the proposal to create "Jalapão Mosaic" is expected to be recognized by MMA as early as December 2012, and once recognized, it is required to establish and capacitate the Council and to approve and starr implementation of the Strategic Plan. The Strategic Plan is scheduled to be finalized by December 2012 after consensus building. The official approval of the Strategic Plan by ICMBio, and State Governments of Tocantins and Bahia may be done after the project cooperation period, andthe Plan is likely to be agreed by the Mosaic Council, considering the fact that the Strategic Plan is being drafted with a participatory way, integrating the views of the expected members of the Mosaic Council and other stakeholders. As such, the Project is expected to achieve the Project Purpose Indicator I and, thus, attain the Project Purpose by the end of project period.
- 3) It is emphasized by ICMBio that all the results of the Project arc of great value to the management of conservation of the Jalapão region; 1) generation of information and data necessary for the ecosystem conservation, 2) creation of Jalapão Mosaic strengthening the integrated management among protected areas and institutions, 3) training of the personnel from ICMBio and other institutions for the ecosystem conservation, 4) constitution of the municipal environmental councils, 5) creation of a program for environmental education, and 6) definition of priority areas for the ecological sustainability of the Jalapão region.

3.3 Efficiency

The efficiency of the Project is high,

- 1) The initial PDM was revised on 5 May 2011. Activities have since been implemented according to the revised PDM and PO, and there has since been no notable delay of the implementation. The PDM is fully understood by the counterparts, and even recognized as a good tool to plan and monitor a project. As such, action plans in the Strategic Plan is framed using PDM format.
- 2) Inputs from Japanese side expert team, provision of equipment, and training in Japan, are properly used for project activities and are highly appreciated by the Brazilian side. Portuguese speaking Japanese experts have containty contributed to a better communication with Brazilian counterparts and, in particular, with local stakeholders. This contributed to high efficiency of the Project implementation.
- 3) The periodical and daily communication between the Japanese experts and counterparts are very good; four JCC meetings were held to date and there have been many periodical counterpart meetings held about every four months. Japanese experts, by the frequent visits to Palmas, have ensured the coordination and cooperation between ICMBio and the state counterparts in project implementation, which is recognized by ICMBio as a significant promoting factor for smooth and effective project execution.

3.4 Impact

The impact of the Project is high.

- 1) It is widely indicated that the establishment and continuation of the conservation mechanism developed by the Project, including the "Jalapão Mosaic", will lead to the enhanced ecosystem conservation in the Jalapão region, thus having a good potential to achieve the Overall Goal within 3-5 years after the Project comes to an end. MMA indicates that the participation of Bahia State in the "Jalapão Mosaic" is very important as the Bahia side of Jalapão is more severely threatened by agricultural development. Once the "Jalapão Mosaic" is officially established and its operation begins, the prospect to achieve the Overall Goal will become higher.
- 2) It is, however, widely indicated by the counterparts that the current project cooperation period is not sufficient to consolidate the operational capacity of the "Jalapão Mosaic". The current cooperation period will not allow the Project to capacitate the Mosaic Council members to become capable of implementing the Strategic Plan, and undertake some actions in accordance with the Strategic Plan, which provides feedback for improvement of the mechanism and the Strategic Plan of "Jalapão Mosaic". One of the priority actions is to support the local negotiations towards the creation of a new strictly protected area in Bahia State to consolidate the connectivity of Jalapão ecosystem. Thus, many counterparts indicated the necessity of the extension of the cooperation period.
- 3) There are some effects produced outside of PDM activities. For example, with the initiative of ELSGT/ICMBio and CEULP/ULBRA, a memorandum of three-year cooperation to promote environmental education was signed in April 2011 between the two entities. Activities of ASAS have been significantly benefited by the input from CEULP which is based on this memorandum. Furthermore, the secretariat of education of Tocantins announced that ASAS would be replicated in all the municipalities of the state. Another example is that ICMBio intends to sign a reciprocity term, with the State of Bahia to implement the Strategic Plan.

- 4) Towards achieving the Overall Goal, it is important to seek cooperation and collaboration with related initiative/projects conducted by multi/bi-lateral development partners. "Prevention, control and monitoring of forest fires and illegal burning in the Cerrado" is being implemented by BMU/GIZ/KfW in the Jalapão region from 2012 to 2015. Its activities include the improvement of the protected area management, reduction of forest fires, and development of technology for automatic quantification of burned areas. To ensure the sustainability of some outputs/activities of the Project, ICMBio has decided to utilize the technical cooperation with the BMU/GIZ/KfW project.
- 5) MMA is promoting the establishment of "mosaics" for biodiversity conservation, and regarding the proposal for creating the "Jalapão Mosaic" as a good model example that can be applied for other 13 existing mosaics as well as new mosaics to be established in the future in the country.

3.5 Sustainability

The prospect of sustainability of the Project is medium at present.

- 1) From institutional viewpoint, the prospect of sustainability is high, for the integrated conservation mechanism established by the Project is based on legislation and formal agreements between related organizations: namely, the Reciprocity Term No 06/2011 for Jalapão Ecological Corridor management, municipal decrees on the appointment of COMATUR/COMTURMA members and on the statute of the councils, municipal decree No 034/2012 for the creation of MONA in São Félix, and the ICMBio's institutional ordinance No 45/2012 to register the Council of EESGT. In the four municipalities, the Commitment Term on ICMS Ecológico was also signed between the mayor and the COMATUR/COMTURMA, which made it possible for the COMATUR/COMTURMA to determine the uses of a certain percentage of the ICMS Ecológico. This gives significant motivation and incentives for the continuation of COMATUR/COMTURMA. Most importantly for the sustainability of the Project, the official establishment of "Jalapão Mosaic" is expected by the end of the Project.
- 2) From technical viewpoint, the prospect of sustainability varies by Outputs. The information systems for the management of the Jalapão region (Output 1) and the developed capacity of the ICMBio and state counterparts (Output 3) are most likely to be sustained, but the development of technical management capacity of the "Jalapão Mosaic" to implement the Strategic Plan (Output 2 and 5) may require more time for training, and actual operational practices and experiences to ensure its sustainability. At the four municipalities, trainings for COMATUR/COMTURMA on activity planning/implementation, and organizational and financial management have been intensively conducted by the Project in 2011. The Project has completed these trainings with the Project Conclusion Seminar on 26 October 2012 (Output 4). However, COMATUR/COMTURMA also require more time for training, and actual appreciate practices and
- However, COMATUR/COMTURMA also require more time for training, and actual operational practices and experiences to ensure its sustainability.
- 3) From the human resource point of view, there are concerns about the sustainability considering future possible transfer and change of staff of federal/state governments as well as of municipalities. The Project can deal with this issue in part by producing documents, such as technical manuals, training texts, and handover procedures.
- 4) Financial capacity to sustain the effects and benefits of the Project is regarded as a challenge. For instance, the reproduction of printed information materials developed by the Project and the production of new materials are considered difficult for ICMBio due to budget constraints. The Jalapão Mosaic will involve not only federal/state government staff but also people from municipalities, civil societies. NGOs and the private sector, whose travely expenses to attend the council meetings are not always covered by federal/state government budgets. As such, it is



important to prepare a financial plan to minimize costs and help to sustain the management and activities of the "Jalapão Mosaic" in the Part III (Operational Guideline) of the Strategic Plan. The Council of EESGT also faces similar difficulties because it involves various mumbers of different municipalities. Utilization of ICMS Ecológico for travel expenses to participate in such councils should be considered.

Chapter 4 Results of Terminal Evaluation

4.1 Conclusion

The relevance of the Project is high as the ecosystem conservation of the Jalapão region is aligned with the policies of Brazil's Ministry of Environment and ICMBjo, not to mention its global importance as a hotspot of biodiversity. The effectiveness of the Project is high as the Project is properly constructed and is making a good progress towards achieving its Purpose by the end of project duration. The efficiency of the Project is also high due to the efforts of both Japanese and Brazilian teams and effective communication and smooth cooperation among all participating organizations. The impact of the Project is high due to the various expected and unexpected positive effects of the Project. The prospect of sustainability is medium at present because there are some concerns about the sustainability from technical, human resource, and financial viewpoints.

4.2 Recommendations

1) Extension of the project cooperation period

Although the Project is considered to be able to attain the Project Purpose by the end of the current cooperation period, the evaluation results from the aspects of "Impact" and "Sustainability" suggest that the Project needs further efforts (1) to consolidate the institutional capacity of "Jalapão Mosaic" through the capacity development of mosaic council members and implementation of priority actions of the Strategic Plan, including the support for local negotiations towards the creation of a new strictly protected area in Bahia State, in order to facilitate the achievement of the Overall Goal, and (2) to strengthen the capacity of the Jalapão Mosaic Council and COMATUR/COMTURMA to enhance sustainability of the Project. Therefore, the Team recommends the extension of the project cooperation period to reinforce the Project in terms of "Impact" and "Sustainability",

2) Leadership of ICMBio to operationalize "Jalapão Mosaie"

Regardless of the extension of the Project, the Team recommends that, once "Jalapão Mosaic" is officially established, ICMBio should play a leading role to coordinate the related organizations for implementation of the activities under "Jalapão Mosaic". Particularly, municipalities in Jalapão Region absolutely require assistance to undertake conservation activities and, hence, ICMBio should extend necessary assistance to such municipalities through the mechanism of "Jalapão Mosaic".

4.3 Lessons Learned

1) Counterparts indicate that the project activities are fully aligned with their own roles and responsibilities in their organizations, thus being able to undertake them as a part of their daily duties. This apparently contributes to a high



effectiveness and efficiency of the Project implementation.

- 2) The revised PDM is well constructed for the Project with achievable and realistic goal, outputs and number/selection of target municipalities for three years of the cooperation period. It is important to prepare a good and realistic PDM for the Project to be successful.
- 3) The Project being managed in a flexible and timely manner (e.g. revision of PDM, change of work schedules, and quick decision-making) can be attributed to the significant decision making power of the Project Manager and the management of the Project by the JICA overseas office that is well aware of the local situations in the field and conversant with related organizations.
- 4) The Project has invested a lot of time and efforts in the interlocution with local partners and stakeholders, which contributed to the smooth implementation of the Project. The Project could have been even more efficiently implemented if such interlocution efforts had been made from the planning stage of the Project.

16

Lechnical Cooperation Duration; 3 years

Implementing Distinction: Chica Mendes Institute for the Conservation of Biodiversity - ICMBio
Target region: Jalapão Region, i.e. connecting area between the Serra Geral do Tocantins Ecological Station and the Nascentes do Rio Parnaiba National Park
Beneficiary Group: Governmental institutions (federal, state, municipal), non-governmental organizations, local organizations, and private sector in the Jalapão Region Ecological Curridor

Version 2, 05/05/2011

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumptions |
|--|--|--|---|
| [Overall Goal] The ecosystem conservation in the Jalapan region is enhanced through the introduction of the Ecological Corridor. | The Strategic Plan for introducing and managing Jalapão Region Ecological Corridors (JREC) is implemented. | 1 Evaluation survey | Feological Corridor is maintained as a strategic and political priority among concerned mylithrons. |
| [Project Purpose] The institutional capacity of ICMBio is strengthened to introduce and implement Ecological Corridor in the Jalapão region. | The Strategic Plan for introducing and managing iREC has consensus among concerned institutions by the coordination of ICMBio. Mechanism to promote biodiversity conservation in Jalapão region is developed by the coordination of ICMBio. | Project report Evaluation survey | The priority and support for the Conservation Units in the Jalapät region towards the implementation of JREC is maintained by the Ministry of Environment. |
| [Outputs] Information necessary for JREC management, including the Conservation Units buffer zones, is collected, analyzed and organized. | The project homepage in ICMBIo website is updated at least four times a year. Information accessary for JRFC management is distributed. | Database CMBio Homepage Information sharing materials Project report | The support of the concerned institutions does not drastically change |
| 2. Institutional arrangements for the JREC management are structured | 1.4 Information sharing materials are developed. | 2.1 Reciprocity Term 2.2 Meeting records | |
| Capacity development of personnel from ICMBio and other institutions, focused on implementation needs of the JRFC, are conducted. | institutional consensus among concerned institutions. 2.2 Meetings among concerned institutions for IREC management are held at least three times a year. | 3.1 Project (eport 3.2 Seminar report | |
| The linkage between local populations and institutions concerned with IREC conservation is strengthened. | Foological Corridors (JREC) is implemented. I. Project report consensus arising concerned institutions by the coordination of (CMBio). Mechanism to promote biodiversity conservation in Julipala region is developed by the coordination of ICMBio. I. The Strategic Plan for introducing and managing JREC has consensus arising concerned institutions by the coordination of ICMBio. I. The distributed and organized. I. The distributed information is developed. I. The distributed information is developed. I. The distributed and organized. I. The project homepage in ICMBio website is useful at least four times a year. I. Information a locessary for JREC management is distributed and sharing materials are developed. I. The Reprocury Term for JREC management obtains institutions. I. The JREC management are structured. I. Training concerned institutions. I. Training concerned institutions. I. Training visits and other capacity developing activities for concerned institutions are held at least two times during the period of the Project. I. Training visits and other capacity developing activities for concerned institutions are held at least two times during the period of the Project. I. Training visits and other capacity developing activities for concerned institutions are held at least two times during the period of project, at least two seminars for JREC conservation are held. I. Training programs for local populations are conducted. I. Training visits and other capacity developing activities for concerned institutions are reported. I. Training visits and other capacity developing activities for concerned institutions are held at least two times during the period of the Project. I. Training visits and other capacity developing activities for concerned institutions are held at least two times during the period of project at least two times during the period of project, at least two seminars for JREC conservation are held. I. Training visits and other capacity developing activities for concerned institutio | | |
| The strategic plan/guideline for introducing and managing IREC is developed; | conservation are held. | | |
| | conducted. 4.2 Municipal environmental legislation is strengthened with | | |
| | | | |
| Activities. 1.1 To collect information concerned with ecological corridors in Brazil 1.2 To collect baseline information for ecological munitoring. 1.3 To develop information sharing materials, and disseminate project information in appropriate media. | (Japanese side) -Experts - Ecosystem preservation / organization strengthening / participatory management of natural resources / | (Brazilian side) -Counterparts (ICMBio Ueadquarters, Serra Geral do Tocantins Ecological Station - 2 people dedicated to the project - and | ICMBio and its budgets are not greatly affected by political change. |
| 2.1 To hold periodical meetings of the project counterparts, discuss and promote the project management. 2.2 To define roles and actions of concerned institutions in the reciprocity term. | | Nascentes do Rio Pamaiba National Park). - Training in Brazil | The stakeholders present in the project area are willing to collaborate with the project |





- 2.3 To obtain institutional consensus on reciprocity term among concerned institutions.
- 2.4 To hold meetings among concerned institutions based on the rationale of reciprocity term.
- 5.1 To identify necessary themes for training the staff from if ViBio and concerned institutions with the Project.
- 3.2 To plan and implement trainings for ICMBin and concerned institutions with the Project
- 3.3 To follow up activities of the trained staff.
- 3.4 To hold seminars on the JREC conservation.
- 4.1 To communicate project information to local populations.
- 4.2 To identify themes and methodologies suitable for capacitating local populations.
- 4.3 To implement training and other activities for local populations for the better management of the natural resources.
- 4.4 To follow up activities of the trained local populations.
- 5.1 To identify strategies for introducing and managing JRFC
- 5.2 To define methodologies and actions for introducing and managing JREC.
- 5.3 To develop the strategic plan/guideline for introducing and managing JREC with participation of concerned institutions.

- Financial resources for local activities

- Necessary equipment
- Vehicles
- · Geoprocessing equipment
- · Necessary materials

- Administrative facilities
- Communication media
- Scoretary, driver
 Operating costs
- Infrastructure

activities.

Pre-conditions

ICMBio allocates personnel and budget for the execution of project activities.



| | Activity | | | | | JFY 2 | | - | | | | | | | | JH | Y 20 | 11 | | | | | | | | JI | Y 20 | | of Oct | OUEL , | 2012 |
|-----|---|---------|---|-----|---|-------|--------|------|------------------|---|---|-----|---|---|-----|----|------|--------|----|---|-----------------|-----|----|---|----|-----|------|------|--------|--------|-----------|
| | | 4 | 5 | 6 7 | 8 | 9 1 | 10 1 | 1 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 1 | 8 | 9 1 | 0 11 | 12 | 1 | 2 | 3 4 | 15 | 6 | 7 | 8 4 | 1 | 0 11 | 12 | 2 | 3 |
| 11 | To collect information concerned with ecological corridors in Brazil. | | | | | | | | | | | | | = | - | 1 | | t | | | | 1 | | | | | Ŧ | | | Ť | 1 |
| | To collect baseline information for ecological monitoring. | i | - | - | - | 1 | - | _ | 1 | | - | - 1 | | 4 | | 1 | - | | | | T | | İ | | | | | | | | T |
| | To develop information sharing materials, and disseminate project information in appropriate media. | 1 | 1 | - | 1 | | + | + | | | | | = | - | - | + | # | - | | | | - | | | | - | - | - | | Ť | |
| | To hold periodical meetings of the project counterparts, discuss and promote the project management. | - | | | - | | | - | | | 1 | 4 | Į | | - | - | | | - | | | | | | | | | T | | | |
| | To define roles and actions of concerned institutions in the reciprocity term. | 1 | 1 | - | | H | | | 1 | | | _ | | 1 | | 1 | | 1 | | | T | | | | - | 1 | 1 | | | | t |
| 2,3 | To obtain institutional consensus on reciprocity term among concerned institutions | ***** | | 1 | - | | _ | - | | | - | | 4 | | - | 1 | | | 4 | | - | 1 | | | | | Ì | | | | 1 |
| | To hold meetings among concerned institutions based on the rationale of reciprocity term. | | | | | | | | 1 | | | | | 1 | - | - | 1 | | | | | | | | | - | + | | | | - |
| | To identify necessary themes for training the staff from ICMBio and concerned institutions with the Project. | | - | | | | _ | | | | | 1 | - | - | | | Ī | | | | | | | | - | | | | | | - |
| 3.2 | To plan and implement trainings for ICMBjo and concerned institutions with the Project. | | | | | | - | _ | | | _ | 4 | _ | 4 | - | 1 | | 1 | | | - | - | | | | | 1 | | | 1 | o and the |
| 33 | To follow up activities of the trained staff, | | | | 1 | | | | | - | | 1 | 1 | | - | ŧ. | | | | | | | | | | | İ | | | 1 | |
| 3.4 | To hold seminars on the JRFC conservation. | | 1 | 1 | | | | | | | | 1 | 1 | | - | 1 | | | | | 1 | | | | | 1 | | | | Ì | i |
| | To communicate project information to local populations. | | | | - | | - | | | | - | | | _ | - | 1 | | | | | 1 | | | | | | | | | | t |
| 4.2 | To identify themes and methodologies suitable for capacitating local populations | | - | - | - | H | + | - | | | | | | - | | - | | | | | - | - | H | | | Ť | T | 1 | | Ħ | r |
| 4.3 | To implement training and other activities for local populations for the better management of the natural resources. | 1 | | | | - | | | | | | 1 | 4 | - | - | - | - | + | | | - | | | | 1 | 4 | İ | | T | Ħ | ſ |
| 4.4 | To follow up activities of the trained local populations. | | 1 | | | | | | | | | - | _ | _ | _ | 4 | + | _ | | | T | | _ | _ | į. | 4 | | 4 | | | 1 |
| 5.1 | To identify strategies for introducing and managing JREC. | 1000 | 1 | 7 | | | | | | | - | 4 | | _ | 1 | 1 | | | | | 1 | | | | 7 | 1 | T | | | | |
| | To define methodologies and actions for introducing and managing JREC. | | | | f | | | | | | | - | | | - | - | 1 | 1 | | | Special Section | - | 1 | _ | | | - | | | 1 | |
| 5.3 | To develop the strategic plan/guideline for introducing and managing JRFC with participation of concerned institutions. | 1001001 | | | | | | | and the Contract | | | | | | - | | - | | | | | - | | | 1 | 4 | | | | İ | 1 |

Annex 3: Schedule of Evaluation Mission

| | Date | | Mr. Sate & Mr Komazawa | Mr. Okuda & Ms. Maeda | Brazilian Evaluation Team |
|-----|---|----------|--|--|---|
| 6 | ()et 14 | Sun | | 15:55 Narita → 15:05 Allanta | |
| | | | | 21:15 Atlanta → | |
| 2 | 15 | Mon | | → 6:55 Brasilia | |
| | | J. Corto | | 15:30 Meeting at JICA office | |
| 3 | 16 | The | 09:00 Kick-off Meeting at ICM Bio 14:30 Meeting with MMA 15:30 Courtesy Call at ICMBio | | |
| 4 | 77 | Wed | (Mr. Komazawa) 15.45 Brasilia → 17:00 Palmas | 09.00 Interview at ICMBio 15:45 Brasilia → 17:00 Palmas | |
| | | | 09-45 Courtesy Call at SEMADES | 09:45 Courtesy Call at SEMADES | |
| | | | 10:30 Interview at SEMADES | 10:30 Interview at SEMADES | |
| | | | 15:00 Courtesy Call at NATURATINS | | |
| 5 | 18 | Thu | | 15:00 Courtesy Call at NATURATINS | |
| | | 41 | 15:30 Interview at NATURATINS | 15:30 Interview at NATURATINS | |
| | | | (Mr. Sato) | | |
| | | | 15:45 Brasilia → 17:00 Palmas | Table 2 To the control of the contro | |
| 6 | 19 | Fri | 07:30 Palmas → 13:00 São Felix | 07/30 Palmas → 13:00 São Félix | |
| 101 | minus e | | 14:30 Hearing at São Félix | 14-30 Hearing at São Félix | |
| | | | 08:00 São Félix → 09:30 Mateiros | 08:00 São Félix → 09;30 Mateiros | |
| 7 | 20 | Sat | 10:30 Hearing at Mateiros | 10:30 Hearing at Mateiros | |
| | | | 14:00 Mateiros → 18:00 Ponte Alta | 14:00 Mateiros 18:00 Ponte Alta | |
| 8 | 21 | Sun | 09:00 Hearing at Ponte Alta | 69:00 Hearing at Ponte Alta | |
| 7 | | count. | 14:00 Ponte Alta→ 17:00 Dianopolis | 14:00 Ponte Alta→ 17:00 Dianopolis | - 11110 |
| | | | 08:30 Interview at EESGT | 08:30 Interview at EESCT | |
| 9 | 22 | 34 | 10:00 Interview at Rio da Concerção | 10:00 Interview at Rio da Conceição | |
| 4 | 22 | Mon | 14:00 Environmental Education Workshop | 14/00 Environmental Education Workshop | |
| | 120000000000000000000000000000000000000 | | 15 00 Rio da Conceição → 18:30 Palmas | 15;00 Rio da Concerção → 18:30 Palmas | |
| | | | (Mr. Sato) | 09:00 Meeting with JICA experts | 111111111111111111111111111111111111111 |
| 10 | 23 | Tue | (AM) Palmas · · Brasilia | 15:00 Interview at SEPLAN | |
| | | | | 09:00 Meeting with JICA experts | |
| H | 24 | Wed | | W. 7. M. 7. W. 7. W. 2. W. 7. | |
| | · · · · · · · | 11116 | | Preparation of Report | *************************************** |
| 12 | 25 | Thu | | Apparatus St. Mappar | |
| J | | | | 08 (X) Project Conclusion Seminar | |
| ia | 26 | Fri | | 17.35 Palmas → 18:55 Brasilia | |
| 14 | 27 | Sat | | Preparation of Report | |
| - | | | Preparation of Report | Targettina to the part | |
| 15 | 28 | Sun | 13:30 Internal Meeting | | |
| | | | | | |
| 16 | 29 | Mon | 09:00 Meeting at ICMBio | | |
| 0 0 | | - | 00 00 P | | |
| 17 | 30 | Tue | 09:00 Preparation of Report and M/M | | |
| | | - | 14:30 Meeting at ICMBio | | *********** |
| 8 | 31 | Wed | | JCC and Signing of M/M | |
| | | -10 | | ************************************** | |
| 9 | Nov I | Thu | | 22:40 Brasilia+ | |
| 20 | | Fri | | → 05:45 Atlanta | |
| - 0 | | 111 | | 13:00 Atlanta → | |
| 1 | 3 | Sat | | 16:20 Narita | |

3 2

Annex 4: List of Interviewees

| | Brazilian Side | | |
|------|--------------------------------------|---|--|
| 1) | Counterparts | AND A RESIDENCE FOR THE TAX TO SERVE | 0.00 15 |
| 1 | Mr Bernardo Brito | Chief of CGCAP / DIMAN / ICMBia | 10/16 |
| 2 | Mr. Atlan Crema | Chief of DMOC7 CGCAP / DIMAN / ICM Bio | 10/16,17 |
| 3 | Mr. Mariusz Amoni Szmuchrowski | DMOC7 CGCAP7 DIMAN7 ICMBig | 10/19 |
| 4 | Mr. Bernardo Issa de Souza | Deputy Director of DIMAN, (CMBin | 10/16 |
| 5 | Mr. Aquilas Ferreira Mascarcuhas | Chief of EESGT / JCMBio | 10/22 |
| , | Ms. Ann Carolina Senn Barradas | EESGT/JCMBio | 10/22 |
| 2) | State Counterparts | | |
| 1 | Mr. Divaldo Rezende, PhD | Secretary of State: SEMADES | 10/18 |
| 2 | Ms. Marli Santos | Superintendent of Environment and Forests, SEMADES | 10/18 |
| 3 | Mr. Fabrizio Rafael Dias Fonseca | SEMADES | 10/18 |
| 4 | Mr. Alexandre Tadeu M. Rodrigues | President, NATURATINS | 10/18 |
| 1 | Ms. Veronica Amaral | Directorate of Biodiversity and Protected Area, NATURATINS | 10718 |
| 5 | Mr. Volnei Marcos Martinovski | Coordination of Conservation Units, NATURATINS | 10/18 |
| 7 | Ms. Paula Montenegro | Coordination of Conservation Units, NATURATINS | 10/18 |
| } | Mr. Rodrigo Sabino | Director of Ecological-Economic Zoning, SEPLAN | 10/23 |
|) | Ms. Cecilia Miranda | Information Technology Analyst, Ecological-Economic Zoning Department. SEPLAN | 10/23 |
| 10. | Ms. Maria de Fatima Rocha Medina | Representative of CFULP/LLBRA | 10/26 |
| 31 | Beneficiaries | | |
| | Mr. Marlen R. Rodrigues | Next Mayor, São Félix (2012) | 10/19 |
| 2 | Ms. Vaneça Ribeiro Corado | Fourism and Environment Department, Municipality of São Félix | 10/19 |
| 3 | Mr. Wilson Gomes da Silva | President of COMTT/RMA, São Félix | (0.19 |
| 1 | Ms. Delice dos Reis Barhosa | Secretary COMTURMA, São Felix | (0/19 |
| | Mr José da Silva Rodrigues | Vice President of COMTURMA, São Félix | 10/19 |
| 5 | Mr Carlos Irael | Former Secretary of Environmental Department, Municipality of Sae Felix | DM/LG |
| 7 | Ms Rejane Ferreira Nunes | Management and Protection Coordinator, NATL RATINS | 18/20 |
| 3 | Ms Claudiana Matos da Silva- | Secretariat of Environmental and Tourism, Mateiros | 100/20 |
| | Mr. Josimar Ferreira de Almeida | Current Vlayor, Mateiros | 10/20 |
| Ó | Mr. Domingos Alves Ferreira | President of COMATUR, Marcures | 10020 |
| ŵ. | Mr. Mouseis Jose de Carvalho Pereira | Representative of Conductor Association, COMATUR Mateiros. | 10/20 |
| 2 | Ms. Zelia Rodrigues M. da Silva | Representative of Secretary of Education and Culture, COMATUR Materios | 10/20 |
| 3 | Mr. João Miranda de Souza | Hearl of the Jafapão State Park | 16/21 |
| 2 | Mr. José Carlos Sena Soares | Former Secretary of Environment, Ponte Alta (next deputy mayor) | 10/21 |
| 5 | Mr José Aparecido de Arabjo | Next Mayor, Ponte Alta | 10/21 |
| 0 | Ms. Nayara Teixeira Lima | First Lady, Next Mayor, Ponte Alla | 10/21 |
| 7 | Ms. Effete dos Santos Alecrim | First Lady Friend, Ponte Alta | 10/21 |
| 8 | Mr. José Ariba S. Rodrigues | Vice President of COMATUR, Ponte Alfa | 10/21 |
| 9 | Mr. Astrogildo de F. F. Neto | Current and Next Mayor, Rio da Conceição | 10/22 |
| 20 | Ms. Maria Caryatho Dias | Next Deputy Mayor, Rio da Conceição | 10/22 |
| 1 | Ms. Gloracy Lopes da Luz. | Secretary of Environment and Tourism, Secretary of COMATUR, Rio da Conceição | 10/22 |
| 2 | Ms. Pauliane Nunes D, dos Santos | Secretarial of Environment and Tourism. Rio da Conceição | 10/22 |
| 7 | Ms. Marcina Silva Brancão | President of COMATUR, Rio da Concesção | 10722 |
| 4 | Mr Mauro Norberto da Silva | Representative of Civil Socity COMATUR, Rin du Conceipato | 10/22 |
| 5 | Ms. Evancia F. Lisboa | Financial Secretariat COMATUR, Rio da Concetção | 10/22 |
| ñ | Mr. Ellas Cirino dos Santes | Vice President, Representative of Civil Scotty, COMATUR, Rio da Conceição | 10022 |
| 7 | Mr. Domingos Rodrigues dos Santos | Environment Department Stuff, Rio da Concerção | 10/22 |
| 8 | Mr. Clésio Possidônio de Carvalho | Environment Department Stuff, Rio da Conceição | 10/22 |
| 2 10 | apanese Side | | |
| 11 | Project team | | |
| | Mr. Koji Asano | Chief Advisor / Ecosystem Management | 10/17-26 |
| | Mr. Manabu Kawaguchi | Participatory Natural Resource Management / GIS | 10/17,23 |
| | Ms. Junko Kikuchi | Participatory Natural Resource Management / Institutional Strengthening | 10/18/24 |
| | Vir James Possapp | Local Consultant (Institutional Strengthening) | 10/18-26 |
| | Ms. Sejene Sotero | Local Consultant (Community Mobilization) | 10/18 |
| | Ms. Jena Izumi | | A STATE OF THE PARTY OF THE PAR |

Thank you so much all for your time and support to the learning evaluation!

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Annex 5: List of Japanese Experts

| As | of. | October | 20 | 12 |
|----|-----|---------|----|----|
| | | | | |

| Artival and Departure Date (Number of Days in Brazil) | | | | | | | | | | | | |
|---|--|--|---|--|---|--|--|---|--|--|--|--|
| | | | _ | | | | 2012 (including dispatch planned) | | | | 75500 | |
| 1" | 2 | 3" | 40 | T' | 244 | 311 | 14 | 2 ^{nl} | 314 | 416 | 5 th | Total |
| 4/8 - 5/19 (42) | 8/7-10/5 (70) | 11/4-12/26 (53) | | 3/21-6/9 (81) | 8/22-10/20 | | 4/3-5/28 | 6/12-7/25 (44) | 8/9-9/22 | 10/6-11/22 | 1/20-3/20 | (595 |
| 6/12-7/10 | 7/18-8/23 (37) | 10/11-10/31 | | 4/8-5/22 (45) | | | | 130 | | | Vary | (13: |
| 4/8-5/(9 (42) | 6/17-7/29 (43) | 9/26-10/25 (30) | 11/26-12/28 (33) | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | | (148 |
| 4/8-6/6 (60) | 9/1-11/25 (86) | | | -1/8-6/6 (60) | 9/25-11/23 | | 5/7-7/5 | 9/15-11/13 | | | | (386 |
| | | | | 3/21-4/19 (30) | 7/8-7/17 | | | | | | | (4) |
| | | | | 9/18-12/12 | | | 6/2-7/5 | | | | | (12) |
| | | | | | | | 6/12-9/3 | 9/4-9/11 | 10/6-11/4 | 2/19-3/20 (30) | | (15: |
| | (42) 6/12-7/10 (29) 4/8-5/19 (42) 4/8-6/6 | 1" 2 ¹⁴ 4/8 - 5/19 8/7-10/5 (42) (70) 6/12-7/10 7/18-8/23 (29) (37) 4/8-5/19 6/17-7/29 (42) (43) 4/8-6/6 9/1-11/25 | 4/8 - 5/19 8/7-10/5 11/4-12/26 (42) (70) (53) 6/12-7/10 7/18-8/23 10/11-10/31 (29) (37) (21) 4/8-5/19 6/17-7/29 9/26-10/25 (42) (43) (30) 4/8-6/6 9/1-11/25 | 1" 2 ⁻²⁴ 3" 4 ⁰ 4/8 - 5/19 8/7-10/5 11/4-12/26 (42) (70) (53) 6/12-7/10 7/18-8/23 10/11-10/31 (29) (37) (21) 4/8-5/19 6/17-7/29 9/26-10/25 11/26-12/28 (42) (43) (30) (33) 4/8-6/6 9/1-11/25 | 1" 2 ²³ 3" 4 ²⁵ 1" 4/8 - 5/19 8/7-10/5 11/4-12/26 3/21-6/9 (42) (70) (53) (81) 6/12-7/10 7/18-8/23 10/11-10/31 4/8-5/22 (29) (37) (21) (45) 4/8-5/19 6/17-7/29 9/26-10/25 11/26-12/28 (42) (43) (30) (33) 4/8-6/6 9/1-11/25 (60) (86) (60) 3/21-4/19 (30) 9/18-12/12 | 1" 2 ¹⁰ 3" 4 ¹⁰ 1" 2 ¹⁰ 3 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 2 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 2 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 4 ¹⁰ 1" 2 ¹⁰ 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 4 ¹⁰ 1" 1" 1" 1" 1" 1" 1" 1 | 1" 2 ¹³ 3" 4 ¹³ 1" 2 ¹³ 3" 4 ¹³ 1" 2 ¹³ 3" 4 ¹⁸ 5/19 8/21-10/5 11/4-12/26 3/21-6/9 8/22-10/20 11/20-12/25 (42) | 1º 2º 3º 4º 1º 2º 3º 1º 2º 4/3-5/28 4/8 - 5/19 8/7 - 10/5 11/4 - 12/26 (81) (81) (60) (36) (56) 6/12 - 7/10 7/18 - 8/23 10/11 - 10/31 4/8 - 5/22 (29) (37) (21) (45) (45) (45) 4/8 - 5/19 6/17 - 7/29 9/26 - 10/25 11/26 - 12/28 (42) (43) (30) (33) 4/8 - 6/6 9/1 - 11/25 4/8 - 6/6 9/25 - 14/23 5/7 - 7/5 (60) (86) (86) (48) (48) (50) (60) (60) 3/21 - 4/19 7/8 - 7/17 (30) (10) 9/18 - 12/12 (86) (6/2 - 7/5 (34) 6/12 - 9/3 | The color of the | The color of the | The color of the | The color of the |

| Longil | Chatte |
|--------|--------|

| Name | 2010 | 2011 | 2012 | |
|-------------------|---|---|---|--|
| Office Staff | Mr. Lucino Diniz | Mr. Lucino Diniz | Ms. Lena lzumi Mr. James Possapp | |
| Local Consultants | Mr. Roberto Kurokawa (Output 2 & 3) Mr. Michiel Meijer (Output 3) Ms. Selene Maria da Costa Solteiro (Output 4) Mr. Renato Prudo dos Santos (Output 1) | Mr. Roberto Kurokawa (Output 2 &4) Ms. Selene Maria da Costa Sólteiro (Output 4) Mr. Cristiano de Campos Nogueira (Output 5) Mr. Renato Prado dos Santos (Output 1) | Mr. Roberto Kurokawa (Output 2 & 4) Ms. Selene Martii da Costa Solteiro (Output 4) Mr. Reinaldo Francisco Ferreira Lourival (Output 5) Mr. Renato Prado dos Santos (Output 1 & 4) | |

付属資料 5

Annex 6: List of Trainings in Japan

| A | 100 | Winds ale to | 10.00 | (4) |
|------|-----|--------------|-------|-----|
| 2.30 | 101 | October | 40 | 14 |

| Scheme | Name | Organization | Period | Visited Institutions and Course |
|----------------------|----------------------------------|---|----------------------------------|---|
| Counterpart Training | Mr. Allan Crems | Coordinator of Mosaic and Ecological Corridor - ICMBio 10 Jun - 20 | | IICA HQ, the Ministry of Environment, the Forestry Agency, Biodiversity Center of Japan, Kushiro Wetland National Park, Eqii-Hakone-Izu National Park. |
| | Mr Janeil Lustosa de Oliveira | Environmental Analyst, Nascentes do Kio Pamalba National Park – ICMBio | 10 Jun 26 Jun 2011 | JICA HQ: the Ministry of Environment, the Forestry Agency, Biodiversity Center of Japan, Kushiro Wetland National Park, Fuji-Hakone-Izu National Park |
| | Ms Ana Carolina Sena Barradas | Environmental Analyst. Serra Geral Ecological Station ICMBio | 10 Jun 26 Jun 2011 | JICA HQ, the Ministry of Environment, the Forestry Agency, Bindiversity Center of Japan, Kushiro Wetland Natirmal Park, Fuji-Flakone-Izu National Park, |
| | Mr. Mariusz Szmuchrowski | Environmental Analyst: Mosaic and Ecological Corridor Division, ICMBio | 23 Nov - 9 Dec 2012 (Planned) | JICA HQ, the Ministry of Environment, the Forestry Agency, Biodiversity Center of Japan, Aso-Kuju National Park, Kirishima-Kinkowan National Park, |
| | Ms. Áquitas Ferreira Mascarechas | Chief, Seria Geral Feological Station, ICMBio | 23 Nov = 9 Dec 2012 (Planned) | JICA HQ, the Ministry of Environment, the Forestry Agency, Buddiversity, Center of Japan, Asu-Kuju National Park, Kirishima-Kinkowan National Park |
| | Ms. Cristiana Castro Lima Aguiar | Chief, Nascente do Rio Paranaiba National Park, ICMBio | 23 Nov 9 Dec 2012 (Planned) | JICA HQ, the Ministry of Environment, the Forestry Agency, Bindiversity Center of Japan, Aso-Kuju National Park, Kiristimia-Kinkowan National Park. |





Annex 7: List of Equipment Provided

| As | of | October | 2012 |
|----|----|---------|------|
| | | | |

| Nu | Equipment | Specification | Quantity | Currency | Total Price | Procurement Year | Place of Use |
|----|-------------------------------------|---|----------|----------|------------------------------|--|--------------------|
| 1 | Vehicle | Pickup dxd, Double Cabin (4 Door). Air conditioner and other necessary specifications | 1 | BRI | R\$88,500.00 R\$94,008.00 | May 2010 – one vehicle Mar 2011 – one vehicle | JICA Team EESGT |
| 2 | GIS Data Server | Dala Server PC (Tower Type), LCD Momtor, Windows Server 2008 and other necessary specifications | 1 | BRL | R\$7,531,11 | Dec 2010 | DMCC |
| 3 | Remote Sensing Software | ITT ENVI ver.4.7 – Single license | T. | BRI. | R\$15,956.00 | Jul 2010 | DMOC: |
| 4 | ALOS (PRISM) Satellite Image Data | JAXA ALOS (PRISM) 2.5m resolution Satellite image data Two seasons | 1 set | BRI. | R\$3,500.00 | Sep 2010 | DMOC |
| 5 | ALOS (AVNIR-2) Satellite Image Data | JAXA ALOS (AVNIR-2) 10m resolution Satellite image data - Two seasons | 1 set | BRL | R\$1,750.00 | Sep 2010 | DMGC |
| 6 | ALOS (PRISM) Satellite Image Data | JAXA ALOS (PRISM) 2.5m resolution Satellite image data. | l ser | USD | \$6,250.00 | Mar 2012 | DMOC |



1) Counterparts

| | Name | Title and Organization | Role/Responsibility in the Project | Period |
|----|--|---|---------------------------------------|---------------------|
| 1 | Mi. Pedro de Castro da Cunha e Menezes | Director of DIMAN / ICMBio | Project Director | Jan 2012~ |
| 2 | Mr. Allan Crema | Environmental Analyst, Chief of DMOC / CGCAP / DIMAN / ICMBio | Project Manager, Output 1, 2, 3, 4, 5 | Apr.2010. ~ |
| 3 | Mr. Mariusz Antoni Szmuchrowski | Environmental Analyst, DMOC / CGCAP / DIMAN / ICMBio | Output 1, 2, 3 | Apr 2010 ~ |
| 4 | Ms. Karına Jorge Diano | Environmental Analyst, DMOC / CGCAP / DIMAN / ICMBio | Output 1, 3, 4 | Apr 2011 ~ |
| 5 | Mr. Aquilas Ferreira Mascaronhas | Environmental Analyst, Chief of EESGT / ICMBio | Output 1, 2, 3, 4, 5 | Apr 2011 ~- |
| 6 | Ms. Ana Carolina Sena Barradas | Environmental Analyst, FESGI / ICMBio | Output 3, 4 | Apr 2011 ~ |
| 7 | Ms. Lara Gomes Corte | Environmental Analyst, FESGT / ICMBio | Output 3, 4 | Apr 2010 ~ |
| 8 | Mr. Máximo Monezes Costa | Environmental Analyst, EESGT / ICMBio | Output 3, 4 | Apr 2012 - |
| 9 | Ms. Cristiana Castro Lima Aguiar | Environmental Analyst, Chief of PNARP / ICMBio | Output 3, 4 | Apr 2010 ~ |
| 10 | Mr. Janeil Lustosa de Oliveira | Environmental Analyst, PNNRP / ICMBio | Output 1, 3, 4 | Apr 2010 ~ |
| П | Mr. Ricardo Snavinsky | Former Director of DIMAN / ICMBio | Ex Project Director | Apr 2010 ~ Dec 2011 |
| 12 | Ms. Juliana Shiraishi | Environmental Analyst, DMOC / CGCAP / DIMAN / ICMBio | Output 1, 3 | Apr 2010 ~ Dec 2011 |
| 13 | Ms. Lilian de Carvalho Lindoso | Environmental Analyst. Former Chief of EESGT / ICMBio | Output 1, 2, 3, 4, 5 | Apr 2010 ~ Dec 2010 |
| 14 | Mr. Rodrigo I cal Morais | Environmental Analist, EESGT/1CMBio | Output 3, 4 | Apr 2010 ~ Dec 2011 |

DIMAN: Diretoria de Criação e Manejo de Unidades de Conservação (Directorate of Creation and Management of Protected Areas, ICMBio)
CGCAP: Coordenação Geral de Criação, Planejamento e Avaliação de Unidades de Conservação (General Cuordination of Creation, Planning and Evaluation of Conservation Units)
DMOC: Divião de Mosaicos e Corredores (Musaic and Ecological Corridor Division)
EESGT. Estação Acológica da Serra Geral do Tocantins (Serra Geral of Tocantins Ecological Station)
PNNRP: Parque Nacional das Nascentes do Rio Parnaíba (Nascentes do Rio Parnaíba National Park)



2) State Counterparts (as of October 2012)

State Government of Tocantius

| Organization | 1 | Name | | l'itle |
|--------------------|-----|---------------------------|---|--|
| SEPLAN | 1 | Mr. Rodrigo Sabino | Diretor de Zoneamento Ecológico-Econômico | Director of Hoological-Economic Zoning |
| | 2 | Ms. Aida Patva | Coordenadora do GT WebGIS | WebGIS Working Group Coordinator |
| | 13 | Ms. Cecilia Miranda | Técnica em Mapeamento e Zoneamento Ecológico-Económico | Technician on Mapping and Ecological-Economic Zuning |
| | 11 | Mr Paulo Augusto de Sousa | Técnica em Mapcamento e Zoneamento Ecológico- Económico | Technician on Mapping and Ecological-Economic Zoning |
| SEMADES | 11 | Ms. Marli Santos | Diretora Geral de Meio Ambiente e Florestas | General Director of Environment and Forests |
| | 2 | Mr. Fabrizio Días Fonseca | Coordenador de Compensação Ambiental | Coordinator of Environmental Compensation |
| | 3 | Mr. Adriano Pinto | Coordenador de Normas Ambientajs e Procedimentos Integrados | Coordinator of Environmental Standards and Integrated Procedures |
| | 4 | Ms. Caroline Frankiw | Coordenadoria de Descentralização Ambiental para Municípios | Coordinator of Environmental Decentralization to Municipalities |
| | 8 | Ms. Cristiane Peres | Analysta Ambiental | Environmental Analyst |
| NATURATINS | 0.0 | Ms. Nilza Verônica Amaral | Diretura de Riodiversidade e Desenvolvimento Sustentável | Director of Biodiversity and Sustainable Development |
| | 2 | Mr Volney Martinovski | Coordenador de Unidados de Conservação | Coordinator of Conservation Units |
| | 3 | Ms. Paula Montenegro | Coordenadora de Educação Ambiental | Coordinator of Environmental Education |
| | 4 | Mr. Gino Machado | Biodiversidade e Desenvolvimento Sustentável | Biodiversity and Sustainable Development |
| | 5 | Ms Daianc Carline Meyer | Biodiversidade e Desenvolvimento Sustentavel | Biodiversity and Sustainable Development |
| Parque Estadual do | 1.1 | Mr. João Miranda | Gerente do PEJ | PEI Manager |
| Jalapão (PEJ) | 2 | Ms. Rejane Nones | Coordenadora de Educação Ambiental | Coordinator of Environmental Education |

State Government of Bahia

| Organization | Organization Name | | Title | | |
|--------------|-------------------|------------------------------|--|---------------------------------------|--|
| INEMA | i T | Balbina Maria de Jesus | Chefe da APA Estadual Bacia do Rio Preto | Chief of Bacra do Rio Preto State APA | |
| | 2 | Richardo Miranda | Coordenador de Corredores Ecológicos | Coordinator of Ecological Corridor | |
| | 3 | Mateus C. Leite Matus | Técnico Ambiental | Environmental Technician | |
| | 4 | Carla Maiana Santos Carvalho | Chefe da Estação Feológica Estadual do Rio Preto | Chief of Rio Preto State ESEC | |
| | 5 | Leonardo Fulcr | Coordenador deUnidades de Conservação | Coordinator of Conservation Units | |



付属資料 5

| 3) Municipalities (Beneficiaries |
|----------------------------------|
|----------------------------------|

| Municipality | Name | Organization | |
|------------------|---|---|--|
| MATEIROS | Mr. Josimar Pereira de Almeida | Prefeito Atual 2009-2012 | |
| | 2 Mr. Julio Motka | Prefeto Elcito 2013-2016 | |
| | 3 Mr. Domingos Alves Ferreira | COMAITIR - Presidente | |
| | 4 Mr. Adão Rocha Braga | COMAPUR -Vice Presidente | |
| | 5 Ms. Claudiana Matos da Silva | Secretária de Meio Ambiente e Turismo | |
| | 6 Ms. Zelia Rodrigues da Silva | Secretaria de Educação, Cultura e Desporto | |
| | 7 Ms. Ilana Ribeiro Cardoso | Assessora da Secretaria de Meio Ambiente | |
| PONTE ALTA DO | 1 Ms. Ascinete | Prefeita Atual 2009-2012 | |
| TOCANTINS | 2 Mr. Zezinho da AA | Prefeito Eleito 2013-2016 | |
| | 3 Ms Rafacla Ernesto Dias | COMATUR - Presidente - Scoretária do Turismo e Meio Amhiento | |
| | 4 Mr. José Arilon S, Rodrigues | COMATUR - Vice - Presidente | |
| | 5 Ms. Lazara Maria Sabóia | COMATUR - Conselheira | |
| | 6 Ms. Daiane Cavalcante Lima | COMATUR - Assessora-Secretaria de Turismo e Meio Ambiente | |
| | 7 Mr. José Carlos de Sena Snares | Ex-Secretario de Turismo e Meio Ambiente - Vice Prefeito 2013-2016 | |
| RIO DA CONCEIÇÃO | Mr Astrogildo de França Filho | Prefeito atual 2009-2012 e Prefeito Eleito 2013-2016 | |
| | 2 Ms. Gloraci Lopes da Luz | Secretária de Turismo e Meio Ambiente | |
| | Ms. Marcina Silva Brabdão | COMATUR - Presidente | |
| | 4 Mr Elias Cirino dos Santos | COMATUR - Vice - Presidente | |
| | 5 Mr. Mauro Norberto | COMATUR - Conselheiro | |
| | 6 Ms Maria Carvalho dos Santos | Ex- Secretária de Turismo e Meio Ambiente - Vice - Prefeita 2013-2016 | |
| SÃO FÉLIX DO | Mr. Janio Silva de Mendonça | Prefeito atual 2009-2012 | |
| FOCANTINS | 2 Mr. Marley | Prefeito Eleito 2013-2016 | |
| | 3 Ms. Junizenth Torres | Secretária de Fansmo e Meto Ambiente | |
| | 4 Mr. Wilson Gomes da Silva | COMTURMA- Presidente | |
| | 5 Mr. Jose Rodrigues | COMTURMA- Vice - Presidente | |
| | 6 Ms. Delice Reis | COMTURMA- Secretária Geral | |
| | 7 Mr. Carlos Iracl Ribeiro dos Reis | Ex- Secretário de Turismo e Meio Ambiente | |



Annex 9: Local Costs (Operational Expenses)

t) Japanese side (unit thousand Japanese Yen)

| | Japanese Fiscal Year (April-March) | | | |
|-------------|------------------------------------|--------|-------------------|--------|
| Item | 2010 | 2011 | 2012 (Planned) | TOTAL |
| Local costs | 21,092 | 23,794 | 32,305 | 77,191 |

Local costs include local employment, printed materials, workshop/seminar and miscellaneous.

2) Brazilian side (unn Real)

| | Bra | | | |
|--------------------------------------|-----------|---------|-------------------|---|
| Item | 2010 | 2011 | 2012 (Planned) | TOTAL |
| Office space – ICMBio HQ | 50,000 | 50.000 | 50,000 | |
| Office space – ICMBio EESGT | 24,000 | 24,000 | 24,000 | |
| F Office space – ICM Bio PNNRP | 20,000 | 20,000 | 20,000 | |
| Postal Services | 6,800 | 6,800 | 6,800 | |
| Acquisition of Vehicles | 250,000 | 4. | * | |
| Office Maintenance | 20,000 | 28,000 | 20,000 | |
| Vehicle Maintenance | 189,000 | 180,000 | 180,000. | |
| Vehicle Fuel | 96,000 | 96,000 | 96,000 | |
| Acquisition of Furniture | | 30,000 | | |
| Acquisition of Information Equipment | | 10.000 | | |
| Electricity / Water | 30,000 | 30,000 | 30,000 | 111111111111111111111111111111111111111 |
| Telephone | 15,600 | 15,600 | 15,600 | |
| Internet | 14,400 | 14,460 | 14,400 | |
| Secretary | 48,000 | 48,000 | 48,000 | |
| Guard man | 144,000 | 144,000 | 144,000 | |
| Driver | 48,000 | 48,000 | 48,000 | |
| Designer (ASCOM) | 10,000 | 10,000 | 10,000 | |
| Creation of HESGT Counsel | 50,000 | 50,000 | 50,000 | |
| Daily Allowances | 32,000 | 32,000 | 40,000 | ****11 |
| Air Fickets | 14,400 | 14,400 | 16,000 | **************** |
| Total | 1,053,200 | 873.200 | 796.800 | 2,723,20 |

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Annex 10: Result Grid 1 (Achievements based on the Indicators)

| Narrative Summary | Indicators | Status as of the Med-term Review (Dec 2011) | Current Status |
|--|--|--|--|
| [Overall Goal] The ecosystem conservation in the Jalapão region is enhanced through the introduction of the Ecological Corrillon | The Strategic Plan for introducing and managing Jalapão Region Ecological Courdors (JREC) is implemented. | It is too early at the time of mid-term review to judge whether or not the achievement of the overall goal will be possible. However, its indicator on PDM is estimated to be possibly realized if this content project activities are continuously conducted in the latter half period. The personnel who know the field station well are quite positive on the eventual achievement of the overall goal while they think that it is not easy to measure the enhancement of the ecosystem conservation. | Not achieved as yet The Strategic Plan is still under development. The mechanism to promote biodiversity conservation established by the Project is expected to contribute to the enhancement of the ecosystem conservation of the Jalapão region |
| [Project Purpose] The institutional capacity of ICMBio is strengthered to introduce and implement beological Corridor in the Julapho region. | The Strategic Plan for introducing and managing JREC flus consensus among concerned institutions by the coordination of ICMBio | The preparation of the Strategic Plan for introducing and managing JREC is in progress. The Team observed eager discussions with concrete ideas on the Strategic Plan during the technical seminar and the counterpart meeting on 29th and 20th Nov 2011. The consensus on the Plan is steadily being created through such discussions and will be consolidated by the end of the Project. | Almost achieved * Under the rationale of the Reciprocity Term, part I (diagnosis and justification) & II (action plan) of the Strategic Plan have been prepared. * Absive-mentioned part I (diagnosis and justification) & II (action plan) are currently being revised to be adapted for the opcoming "idlando Mosaro". The preparation of part III (operational guidelines) is planned to be finalized by December 2012. The development of Strategic Plan for the "Jalapão Mosaic" is being undertaken in a participatory way to custure the consensus. |
| | Mechanism to promote biodiversity conservation in Jalapāo region is developed by the coordination of ICMBio. | The mechanism to promine biodiversity conservation in Jatapan region by the coordination of ICMBio is in the process of its establishment. For example, collaboration between ICMBio, MMA and state organizations was enhanced by the Reotprocity Term. This enhanced collaboration created senergy effects among the federal and state programs to support municipalities, which stimulated the establishment of municipal environment councils. This collaboration has led to a number of joint actions among the federal and state organization, such as joint environmental education program, joint seminar/workshops, and the integration of information management systems of different organizations, which oprimizes the use of scares resources for brodiversity conservation. | Achieved The biodiversity conservation mechanism, which was defined by the Project to consist of the integration/cooperation framework among federal and state institutions (Output 2 and 3), directions of conservation efforts to be shared among concerned actors (Output 1, 3 and 5), and institutions (Output 2 and 4), that been developed. According to the attainment level of Outputs, indicators, those of Output 1,2,3 and 4 are achieved, whereas that of Output 5 are almost achieved. As such, it is reasonable to conclude that the mechanism to promote biodiversity conservation in Jalapäis region is established. |
| [Output] (Information necessary for IREC management, including the Conservation Units buffer zones, is collected, analyzed and organized. | The database with the collected information is developed. | The Project CIS database has become available at http://www.jalapaccurredor.com.hr It is temporarily installed and made available by ICMBio staff on stand-akine server, but the procedure to install it to ICMBio computer network is under progress. | Achieved SEPLAN's homepage is currently being modified to be linked to the new updated Web-GIS system in SEPLAN network which was already set up http://corredorgalapso.seplan.to.gov/br/jalapso/ An official inauguration ceremony of the Web-GIS is scheduled on 9 Nov 2012 in Palmas. |
| | 1.2 The project homepage in ICMBio website is updated at least four times a year. | The project Homepage at ICMB in website was released at http://www.icmbio.gov.br.projemplanac/ Renewal time has not come as yet. | Achieved • The project homepage has been updated on such occasions as below: 1) New release - 21 news have been released from 14 Oct 2018 to 17 Oct 2012 2) English homepage was constructed |

| | | | 3) Additions of materials for downloads - publications and maps |
|---|---|---|--|
| | Information necessary for IREC management is distributed and shared among concerned institutions. | Information necessary for JREC management has been distributed and shared among institutions concerned through the project HP, printed materials and the Ecological Corridor Atlas (synthesized information and maps on JREC). | Achieved Information necessary for JREC management is distributed through website (indicator 1.1 and 1.2), printed materials (indicator 1.4), and meeting/training/seminar (indicator 2.2, 3, 3,2 and 4.1) |
| | 1.4 Information sharing materials are developed. | Printed materials of information necessary for JREC management were developed and well-received. Additional printing is expected by related state/municipal institutions and local communities. | Achieved Many kinds of information materials were developed and distributed, e.g., project brochures, Atlas of JREC banners for municipalities, panels for CETT(Materios) and São Félix, and Video. |
| 2. Instrumental arrangements for the JRFC management are structured. | The Reciprocity Term for JREC management obtains institutional consensus among concerned institutions. | -The Reciprocity Term for JRFC management obtained consensus among ICMBio, MMA, The Governor of the State of Tocannins, NATURATINS, SEMADES and SEPLAN and was signed by them on 29th Sep 2011. | Achieved The Reciprocity Term was signed on 29 Sep 2011 Furthermore, the establishment of Mosme in the Jalapão region in progress. Agreement on Mosaic participation was signed by managers on nine protected areas concerned in Aug 2012. Proposal to establish the "Jalapão Mosaic" was submitted to MMA in Sep 2012. |
| | 2.2 Meetings among concerned institutions for JREC management are held at least three times a year | Various meetings have been held among the related institutions (e.g. the preparation meetings for the Reciprocity Term) and its frequency is more than ten times a year. | Achieved • Periodical counterpart meeting was held 6 times in May 2010 through Sep 2011 • Based on the Reciprocity Term, JREC Coordination Committee gathered 4 times from Nov 2011 to Aug 2012. |
| Capacity development of personnel from ICMBio and other institutions, focused on implementation needs of the JREC, are conducted. | Training, visus and other capacity developing activities for concerned institutions are held at least two times during the period of the Project. | More than two times of training, visits and other capacity developing activities for concerned institutions were held by the time of mid-term review. | Achieved • Training technical exchange, study visit have been conducted follows für counterparts (20 times): 1) Training on GPS/GIS and Web-GIS - 3 times 2) Training in Japan - 1 time 3) Training on RPPN - 1 time 4) Training on RPPN - 1 time 5) Mini-course oil participatory biodiversity conservation - 7 times 6) Technical exchange - 4 times 7) Training on MONA - 2 times 8) Study visit to another missaic - 1 time |
| | 3.2 During the period of project, at least two sentings for JREC conservation are held. | Kick Off Seminar was held on 13 May 2010 RPPN technical seminar on 29-30 Sep 2011 Technical seminar for JRFC conservation on 29 Nov 2011 | Achieved 4 seminars were held to date. 1) Kick Off Seminar was held on 13 May 2010 2) RPPN technical seminar on 29-30 Sep 2011 3) Technical seminar for JREC conservation on 29 Nov 2011 4) Conclusion Seminar (Output 4) on 26 Oct 2012. |
| The linkage between local populations and institutions concerned with JREC conservation is strengthened. | At least two training programs for local populations are conducted | 100 hours trainings rargeting at school teachers were conducted in Materios and in Rio da Conceição. The number of teachers who received the certificate is 26 and 23 respectively. Two-day trainings for potential members of municipal. | Achieved Three kinds (programs) of training have been conducted for the capacity development of COMATURICOMTURMA Capacity development on planning/implementation through |



| | | environment councils were conducted in live municipalities (Mateiros, Rio da Conceição, São Felix, Almas and Ponte Alta) Total 101 members participated in the trainings | the development of model projects 2) Capacity development on organizational management such as the selection of board member and awareness- raising on their role/responsibility. 3) Capacity development on financial management by the utilization of ICMS Ecologico • ASAS – training of teachers for environmental education – conduced in Bio da Conceição and Mateiros (2011) and in São Félix and Ponte Alta (2012) | | |
|--|--|---|--|---|--|
| | 4.2 Municipal environmental legislation is strengthened with assistance from concerned institutions. | The municipal environment councils were established in Rio da Concercio: São Felix and Ponte Alta. The council will be established sono in Mateiros as of Mid-term Review. The environmental council for the Serra Geral do Tocantins. | Achieved Formation of municipal legislation by the Project for COMATUR (COMTURMA in Saw Felix) and MONA | | |
| | | | Municipality | Legislation and Statute | |
| | | Ecological Station is almost been established (Official establishment will be in April 2012) Monicipality of Ponte Alta revised its ordinance on coveroument. The mayor of Sau Felix signed and authorized the SMUC, after | Ponte Alfa | Revision of nunicipal environmental ordinance (Oct 2011) Decree on the appointment of council members (Oct 2011) Statute of the Council (Nov 2011) | |
| | | the approval of the minicipal assembly, to make it possible to designate municipal conservation units, and requested ICMBio for support to the establishment of municipal conservation units. | Rio da Conceição | Decree on the appointment of council members (Oct 2011) Statute of the Council (Nov 2011) Law on the alternation of the environmental fund (Oct 2010) Law on the reform of COMATUR (Oct 2010) | |
| | | | Säu Felry | 1 Decree on the appointment of council members (Oct 2011) 2. Statute of the Council (Nov 2011) 3 Law on SMUC (Nov 2011) 4. Law on the creation of MONA (Jul 2012) | |
| | | | Materios | Decree on the appointment of council members (Jul 2012) Statute of the Council (Jul 2012) | |
| | | | | the Conneil of EESCT was officially registered ICMBio's institutional ordinance No 45/2012. | |
| The strategic plan/guideline for introducing and managing JREC is developed. | 5.1 "Diagnosis & Justification" "Strategic Action Plans" and "Operational Guidelines" are developed. | "Operational Guidelines" has not been prepared yet. However, "Diagnosis & Justification" has been drafted and the preparation of "Strategic Action Plans" is in progress and will be finalized in March 2012. | Almost achieved. Inder the rationale of the Recipiocity Term, part I (diagnosis, justification) & II (action plan) of the Strategic Plan have bee prepared. Above-mentioned part I (diagnosis and justification) & II (actiplan) are currently being adapted for the opcoming "Jalapan Missaic" whereas the preparation of part III (operational guidelines) has just started. A workshop to finalize the part I & II is scheduled on 12-11 N 2012 in Brasilia. The Part III will be finalized by December 2012. | | |



Annex 11: Result Grid 2 (Project Progress at Activity Level)

| Output | Activity | Progress till the Mid-term Review (Dec 2011) | As of October 201, Progress after the Mid-term Review |
|---|---|---|---|
| Information necessary for JREC management, including the Conservation Units buffer zones, is | 1. To collect information concerned with coological corridors in Brazil | List of literature collected (hardcopies) List of information / data collected (GIS data) | Procurement of additional ALOS satellite image data Geospatial data analysis and development of land use map of São Felix based on ALOS satellite image data Cadastral map in São Félix based on ALOS satellite image data and GPS data referring to INCRA (São Félix) |
| collected, analyzed and organized | To collect baseline information for coological monitoring. | Geospatial data analysis and diagnosis Development of landscape map based on ALOS satellite image data, reflecting information such as continuation/separation of ecosystem, population density, and vegetation | |
| | 1,3 To develop information sharing materials, and disseminate project information in appropriate media. | Information/promotion materials (2010) 1) Pen with project logo → 300 2) Mouse Pad with project logo → 500 3) CD I abed with project logo → 500 4) Desk Calendar with Project logo → 500 5) Memo Pad with project logo → 500 6) Fite Binder with project logo → 100 7) Project Brochure(2010) → 200 8) Project Leafter (NATURATINS) → 5000 9) Environmental Education Book (Vamos Conhecer o Cerrado) → 200 10) Bag with project logo → 100 Information/promotion materials (2011) 1) 7 types of folder (project pamphlet) → 3000 2) RPPN × 2 types (for project × 2000, for entire country → 3000) 3) EFSGT in general → 3000 4) PNNRP in general → 3000 5) Ialapão State Park in general → 3000 6) RIO VIVO (ASAS brochure) → 700 7) Calendar 2012 → 500 8) Atlas (Nov 2011) → 500 9) T-shirt → 300 10) Banner for each inunicipality → 4 types Web GIS system (database server and suftware) set up in ICMBio network in Jun 2011. JREC Project Lionepage http://www.icmbio.gov.br/projetopalapao/ Setup manual and operation manual on Web GIS for ICMBio. | Information/promotion materials (2012) 1) logo sticker (big) → 100 2) logo sticker (small) → 100 3) JOGO (card game) → 100 4) Bookmark leaf → 2000 5) Folder (PLOES) project pamphlet → 5000 6) Folder (MANUEL ALVES) pamphlet → 5000 7) Folder (Natural Monument/Public Consultation) pamphler → 1000 8) Panel → 7 9) Educational video (MONA establishment procedure) → 100 10) Panel for CEIT → 8 types 11) Panel for São Felix → 3 types Atlas of JREC currently under revisiou, to be reissued in Jan 2013 Web GIS system transferred from IC MBio to SEPLAN in Jun 2012 New, updated Web GIS system (database server and software) set up in SEPLAN activoric, scheduled to hold an official inauguration ceremony on 9th Nov 2012 (Palmas). http://corredorjalapan.seplan.to.gov.br/palapao/ The characteristics of the Web-GIS is described as below. 1) Low-cost GIS system by making use of free software: 2) No specific GIS software necessary on users PCs; 3) Data addition to data server possible by users; and 4) Data exports to users PCs available. SEPLAN's Project Homepage currently under development to be furked to the Web-GIS site above. WebGIS manual for SEPLAN 4 visitor counter was set up for the Project-Web GIS. JREC Project Homepage updated every two-three weeks as necasion of news release (e.g. 17 Oet 2012 on municipal environmental counted wrap-up meeting), construction of English Homepage, and addition of supplement information data |
| Institutional arrangements for the JREC management are structured. | 2.1 To hold periodical meetings of the project counterparts, discuss and promote the project management. | - JCC 1st - 4 May 2010 2 ¹⁰ : 5 May 2011 (Approval of revised PDM) 2 ^{at} : 9 Dec 2011 (Report of Mid-term Review) - Technical Kick-off Seminar on 13 May 2010 | ICC 4th : 17 May 2012 (Review of activities in 2011. Approval of 7.017 Annual plan 5th - 31 Oct 2012 (planned to review the terminal evaluation report) Periodical Counterpart Meeting 1) 8-9 May 2012 (Annual Action Plan for 2012 of Periodical CP meeting) |



| | | Icchnical Mid-term Seminar on 29 Nov. 2011 Perusdical Counterpart Meeting. 1) 12 May 2010 2) 1-2 Jun 2010 3) 19-26 Sep 2010 4) 1-2 Dec 2010 5) 28 Apr 2011 6) 6 Sep 2011 7) 30 Nov 2011 | 2) 18-49 Jul 2012 3) 28-29 Aug ai Solvador, Bahia 4) 12-14 Nov 2012 (planned in Brasilia DF) |
|---|--|---|--|
| | 2.2 To define roles and actions of concerned institutions in the reciprocity term. | Meeting for the reciprocity term between ICMB in and State of Tocantins (17-18 May 2010 and 3, 5, 28 Apr 2011) | Discussion regarding Reciprocity Term between ICMBio and State of Bahia (28-29 Aug 2012) Letter of request for approval of Reciprocity Term was dispatched from ICMBio to State Environmental Secretariat (11 Sep 2012) |
| | 2.3 Problem institutional consensus on reciprocity term among concerned institutions. | The Reciprocity Term No 08/2011 for JREC management was signed by the President of K'MBio, the Secretary of MMA, the Secretary of SEMADES, the President of NATURATINS the Secretary of SEPLAN, and the Governor of the State of Tocartins. 29 Sep 2011 Extract of the Reciprocity Term was published in the Diario Oficial da União, 7 October 2011 (DOU No. 194) 1) The introduction and implementation of Jülapão Corridor 2) The establishment of Coordination Committee 3) The Reciprocity Term valid for 5 years | |
| | 2.4 To hold meetings among concerned institutions based on the rationale of recipracity term. | | Meeting of JRFC Coordination Continuities based on the Reciprocity Term 1) 30 Nov 2011 (Seminar held with participants from Bahia State Government) 2) 8-9 May 2012 3) 18-19 Jul 2012 4) 78-29 Aug at Salvador, Bahia Promotion regarding the establishment of mosaic in the Jalapais region 1) Working group and a mailing list were set up, including those concerned in Bahia, in May 2012 2) Agreement on Mosaic participation singed by authorities of nine related protected areas in Aug 2012 3) Proposal to establish the "Jalapão Mosaic" prepared and submitted to MMA in Sep 2012. 4) The establishment of the Jalapão Mosaic is expected to be recognized by MMA in as early as Dec 2012. |
| Capacity development of personnel from ICMB10 and other institutions, focused | 3.1 To identify necessary themes for training the staff from ICMBin and concerned institutions with the Project | Hearing survey for needs assessment of ICMBio staff by a JICA consultant Preparation of a training program on 9-10 Nov 2010 | |
| on implementation needs of the JRDC, are conducted | 3.2 To plan and implement trainings for ICMBio and concerned institutions with the Project. | - GPS/GIS Training 1) 9-10 Nov-2010 2) 17-18 May 2011 for staff from NATURATINS, SEMADES and SEPLAN - Counterpart Training in Japan 1*- 10 - 26 Jun 2011 - RPPN technical seminar at NATURATINS 29-30 Sep 2011 | I.Training - Web-GIS Training for stuff from NATURATINS, SEMADES and SEPI AN 25 May 2012 - Training on prevention and control of forest fire 16-17 Aug 2012 - Counterpart Training planned in Japan 2 rd 23 Nov –9 Dec 2012 planned |



| | | | scosystem co establishmen 1) 8-9 N 2) 18-19 3) 28-29 4) 12-1- 3 Training on M 1) 5 Jul | change meeting for ICMBio and officers of Tocasters on integrated observation, management of protected area and the inframagement of Mosaic May 2012 9 Jun 2012 9 Aug 2012 4 Nov 2012 planued IONA in Palmas with participants from state counterpart institutions 12012 (draft MONA management plan was discussed) Jon 2012 (consultation on the 1" draft MONA management plan) |
|--|---|--|--|---|
| | 3.3 To follow up activities of the trained staff. | Mini-course on institutional framework for Promoting a participatory hindiversity conservation - cases from the Philippines and India - was presented by a Japanese expert. 1) 14 Oct 2011 at ICMBio (Brasilia) 2) 17 Oct 2011 at Materios 3) 20 Oct 2011 at Ponte Alta Mini-course on institutional framework for Promoting a participatory biodiversity conservation was presented by a Japanese expert. 1) 9 Nov 2011 at São Félix 2) 10 Nov 2011 at Materios 3) 14 Nov 2011 at Rio da Conceicão 4) 22 Nov 2011 at Ponte Alta Study Visit for the exchange of experience to Central Fluminense Mosaic (2-16 Dec 2011) | O/T Capacity devi | enducted through opportunities such as fraining, WS and seminars, elopment of C/P and stare counterparts on municipal environmental commental education. EESGT management) |
| | 3.4 In hold seminars on the IREC conservation. | Kick Off Seminar on 13 May 2010. RPPN technical seminar on 29-30 Sep 2011 Technical Mid-term seminar for JREC conservation on 29 Nov 2011 in Taquarusu, Tocannins. | | lusion Seminar was held on 26 Oct 2012. seminar planned to be held in Jan 2013 |
| The linkage between local populations and institutions concerned with JREC conservation is strengthened. | To communicate project information to focal populations | 7 types of folders generated. Record of distribution maintained. | under discuss 3 types of fold 5) Polder (P 6) Folder (N | the technical orientation manual of ICMS Ecologico of Tocantins is sion. der generated. (— see Activity 1.3) ILOES) project pamphlet — 5000 ANUEL ALVES) pamphlet — 5000 Januard Monument/Public Consultation) pamphlet — 1000 |
| | 4.2 To identify themes and methodologies suitable for capacitating local populations. | Field Recommissance (19 – 25 Sep 2010) to identify target communities and approaches. Hearing survey by JICA consultant (Ms. Selene) on municipal environmental cumpel and analysis. | Field Reconnaissance to re-identify target communities and approaches (Per São Felix, Rio de Conceição, Mateiros). 19-24 April 2012 Hearing survey to state counterpair institutions. April 2012 | |
| | 1.3 To implement training and other activities for local | Municipal Environmental Councils Training course on structure for environmental management (municipal environmental) | 1) Capacity Development of COMATUR/COMTURMA in planning and implementation through the development of model projects | |
| | populations for the better management of the natural resources. | eouncil) for total 101 participants (19 municipal officers, 14 city control member, 68 others) Almas (12-(3 Jul 2011) Materios (19-20 May 2011) Ponte Alla do Tocanrins (30-31 May 2011) Rio da Concercão (2-3 Jun 2011) | Municipality Ponte Alta | Current Status of model projects - WS 1) 20-21 Jun 2012 2) 18 Jul 2012 3) 6-7 Aug 2017 4) 21 Aug 2012 (Plan was drafted) 5) 29 Sep 2012 (Plan was discussed) |



| São Félix do | Tocantins (16-17 | May 2011) | | | 1 | The Description of Black Clubs Big. C. C. Jind. 30 |
|---|--|---|--------------------|-------------------|------------------------------|--|
| | ng for a proposal | | m regional enviro | minental councils | | The Re-vitalization Plan of Urban Rivers was finalized on 20 Oct 2012. |
| Mateiros (Ponte Alta de Rio da Corre São Félix do Advice to envi environmental a Ponte Alta de Rio da Corre São Félix do | 17 Oct 2011) o Tocantins (11 ' eição (10 Aug 2: Tocantins (15 S contient and touri- auncil o Tocantins (21 Oct 201 Tocantins (9 Nov | Nov 2011) 011) ep 2011) sm division for the ct 2011) 1) 2011) | c establishment of | | Rio da Conceição | WS 1) 22-23 Jun 2012 2) 16 Jul 2012 3) 8-9Aug 2012 4) 22 Aug 2012 5) 27-28 Sep2012 The Promotion Plan of Natural Touristic Attractions was finalized on 9 Oct 2012 Brochure on environment, banner and panel were developed (> see Activity 1.3) |
| Mateiros (10 Ponte Alta d Rio da Conc São Félix do | o Tocantins (22 Novicição (14 Nov 20) Tocantins (9 Novició Agreement sign | ov 2011) (1) (2011) | | ATURĀTINS and | Mateiros | - WS 1) 1-2 Jul 2012 2) 29-31 Jul 2012 3) 20 Aug 2012 4) 6-7 Sep 2012 5) 25 Sep 2012 - 1 st drall Plan for the Promotion of Touristic Information and |
| | | | 11.000.000 | | | Exposition Center (CEIT) was prepared on 27 Sep 2012. No panels were developed and have been put for exhibition at |
| Legislation and Legal Act | Statute at the Mr. Ponte Alta | Rio da | Apr 2010 Dec 2 | | 1 | CEIT since Oct 2012 (→ see Activity 1.3) |
| 1.cgai Act | Polite Alta | Concerção | São Fenx | Materios | São Félix | . WS 1) 5 May 2012 (Public consultation for the establishment |
| Preparation meeting | 3 times | 3 times | 3 times | 3 times | | of MONA) 2) 1-2 Jul 2012 (Awareness raising on MONA with |
| Revision of municipal environmental ordinance | Oct 2011* | N/A | N/A | N/A | | COMTURMA) 3) 7 Jul 2012 (Signing afthe municipal decree of MONA) 4) 1-2 Aug 2012 (Training of MONA management plan) 5) 24 Sep 2012 (Preparatory discussion on public |
| Decree on the appointment of council member | Oct 2011 | Det 2011 | Oct 2011 | Not yet | | meeting) 6) 13 Oct 2012 (Public meeting on 1st draft of MONA management plan) - The Natural Monument (MONA) along Soninho River was |
| Statute of the Council | Nov-2011 | Nnv 2011 | Nov 2011 | Not yet | | established on 2 July 2012 by the signing of the mayor on the Decree No 034/2012 Management plan for MONA beam prepared. |
| £ | 3677 | 700 | 6 | 200 | ļ . | Wanagement plan for MONA being prepared. |
| SMUC" | N/A | N/A | Nov 2011 | N/A | Capacity deve management, | dopment of COMATUR/COMTURMA on organizational |
| Law on the alternatin of | N/A | Oct 2010 | N/A. | N/A | Municipality | Activities |
| the Environmental | | | | | Ponte Aha | t → see the WS conducted above) Re-nomination of COMATUR after the resignation of mayor (May 2012) |
| Law on the Reform of COMATUR | N/A | Oct 2010 | N/A | N/A | | The hourd members (chairman, vice chairman, secretary) were re-elected. Training to raise awareness on the role/responsibility of COMATUR was conducted. |
| Number of legislation and Statute | 3 | 4 | 3 | 0 | | 7 Aug 2012 Training for organization management of COMATTIR such as organizing plenary meetings and keeping minutes of |
| and Agriculture. | ntvironmental cou The revision w aking a COMAL | as for the Agricult | | | | meetings. 21 Aug 2012 WS on how to prepare a public meeting 29 Sep 2012 |
| | | | | | Racy day | 1 → see the WS conducted above; |



| Conceição | Re-nomination of COMATUR after the resignation of mayor. (Mai 2012) |
|-----------|---|
| | The board members (charman, vice charman, secretary) were re-elected. Training to have awareness on the role/responsibility of COMA) UR was conducted. 8 Aug 2012. |
| | Training for organization management of COMATUR such as organizing plenary meetings and keeping minutes of meetings. 32 Aug 2012 |
| | W5 on how to prepare a public meeting. 27-28 Sep 2012 |
| Mateiros | COMATUR was established by the official designation ceremony, acceptance by the nonnnees of COMAPUR members. 30 Jul 2012 |
| | The council members (charman, vice charman, secretary) were selected. Training to raise awareness on the role/responsibility of COMATUR was conducted 29-30 Jul 2012. |
| | Training for organization management of COMATUR such as organizing plenary meetings and keeping minutes of meetings 20 Aug 2012 |
| | WS on how to prepare a public meeting. 25 Sep 2012 |
| São Lehx | Monitoring and follow-up on organizational management was conducted. 1-2 hd 2017 |
| | Mag 2012 WS on how to prepare a public meetings. 24 Sep 2012 |

3) Capacity Development of COMAPUR/COMTURMA on financial management utilization of ICMS Ecologico

· Raising awareness training of ICMS Ecologico at the municipality level in collaboration with state organizations - SEMADES, NATURATINS,
MPF(CAOMA) - for utilizing the budget of ICMS Ecologico (environmental
conservation grant, a source of public finance to support COMATUR activities.)
16 Jul 9 Aug 2012 (4 municipalities)

Training WS on ICMS Ecologica for COMTURMA and municipalities in collaboration with state organizations - SEMADES/PEGAM, NATURATINS, MPE (CAOMA), Secretary of Finance, COEMA

30 Aug 2022 in Pales.

30 Aug 2012 in Palmas

· Communent Term was officially signed between mayors and COMATUR/COMTURMA at four municipalities to agree on the following percent of ICMS Ecologico for the use of COMATUR/COMTURMA.

| Municipality | Date of Signature | Percent | # of the council member |
|------------------|----------------------|---------|-------------------------|
| Ponte Alta | 9 Oct 2012 | 50% | 14 (+14 deputies) |
| Rio da Conceição | T(0.0)cr.2012 | 30% in | 12 (+12 deputies) |
| Mateiros | 11 Oct 2012 | 20% | 14 (14 deputies) |

| | 3) Environmental education Development of JREC pioject environmental education action plan (17 Feb 2011) ASAS', to provide public school leachers of Rio da Conceição and Maierros with 100 hour training course 1" phase (preparation of action plan, Aug 2011) 2" phase (implementation of the action plan, Aug-Nov 2011) 3" phase (completion certificate, Nov-Dec 2011) |
|--|--|
| | |

| 25% | 8 () 8 deputies |
|-----|------------------|
| | 755540 |

- Revision of the technical orientation manual of ICMS Ecologica of Tocantins is under discussion.
- 4) Capacity development of the Council of EESG1 on institutional management
- EESGT staff regularly visited all five municipalities concerned (Rio da Conceição Mareiros, Ponte Alta, Almas, Formosa de Rio Preto) and facilitated the establishment of the EESGT Council
- The Council of FESGT was officially registered (approved) by ICMBio's institutional ordinance No 45/2012. The Council consists of 22 members from relevant municipalities.
 - 4 Apr 2012
- WS for management plan of EESGT

1-3 Aug 2012 in Palmas

 P WS uniducted on the development of internal regulation, hosted by ICMBio, attended by state organizations (SEMADES, NATURATINS) and staff of municipalities nearby.

18-19 Aug 2012 in Dianopolis

- 2ⁿ² WS conducted on the development of internal regulation 19-21 Oct 2012 in Ponte Alta
- 5) Environmental Education (ASAS)
- . Training of teachers for environmental education

19-21 Aug 2012 in São Félix

23-25 Aug 2012 in Ponte Alta

- Teachers who were trained in 2011 (Mateinss and Rio da Conceição) have been implementing the plan of environmental education developed in 2011
- ICMBio HQ hosted an exchange meeting among ICMBio's 4 environmental education programs in Brazil

8-10 Aug 2012 in Brasilia

 Technical exchange forum was conducted for teachers who were trained in Ponte Alta, Rio da Concerção, Materius and São Félix, and COMTURMA member 72-73 Oct 2012 in Rio da Concerção

6) Legislation and Statute at the Municipality Level (Dec. 2011 - Oct 2012)

| Legal Act | Ponte Alta | Rio da Concerção | São Felix | Mateiros |
|--|---------------------------------------|---------------------------------------|---------------------------------------|----------|
| Decree on the appointment of council members | Done before the mid-term review | Done before the mid-term teview | Done before the mid-term review | Mar 2012 |
| Statute of the Council | Done before the mid-term review | Done before the mid-term review | Done before the mid-term review | Jul 2012 |
| Law on SMUC | N/A | N/A | Done before the mid-term review | N/A |
| Law on Creation of MONA Number of | N/A | N/A | Jul 2012 | N/A |

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| | | | legislation and Statute |
|---|---|---|--|
| | 4.4 To follow up activities of the trained local populations. | - | Follow-up conducted through opportunities such as training, WS, seminar and field visits. Follow-up conducted through the Project Conclusion Seminar held on 26 Oct 2012 in Palmas. |
| The strategic plan/guideline for introducing and managing JREC is developed | 5.1 To identify strategies for introducing and managing JRLC. | Biodiversity Indicators for fauna and flora Diagnosis and Justification" conducted in Jun-Sep 2011 Characteristics biodiversity rationale for conservation—sequence of ecosystem Strategic Priority Areas—Serra Geral, Parnaitha River basin, etc. | |
| 35,744,7 | 5.2 To define methodologies and actions for introducing and managing JREC. | "Strategic Action Plan" was discussed at the Technical Mid-term seminar on 29 Nov 2011 in Taquarusu, Tocantins. Contents: vision, mission, common objectives, action plan Participants: SEPLAN, NATLRATINS, INFMA (Bahia), SEMA (Bahia), SEMADES, ADTUR, ICMBio (CESCI, PNRP), Conservation International | Regarding the Strategic Plan: Part 1 – diagnosis and justification—and Part II – action plan – are being finalized. Preparation of Strategic Plan Part III has started. The Strategic Plan Part III will be discussed in the Workship on 12-14 Nov 2012. Mr. Allan (ICMBie). Mr.Asano (JET). Mr. Leonardo (INEMA-BA) and Mr. Marcos (JICA consultant) will finalize the Strategic Plan after the Workshop on 12-14 Nov 2012. |
| | 5.3 To develop the strategic plan/guideline for introducing and managing TREC with participation of concerned institutions. | | With the "Jalapão Mosaic" becoming more likely to be established, discussion on the implementation of the Strategic Plan is scheduled in Jan-Mar 2013. |



添付 6: Evaluation Grid (Information and data for the 5 criteria)

| 1-1 New development of laws, national policies, strategic documents associated with biodiversity conservation in Brazil. MMA • Ecological Corridor is an instrument of environmental management, defined by the SNUC (Law 9985 of Jul 18, 2000) - to ensure the ecological integrity by connecting movement of species between these protected areas. | | | | | |
|---|--|--|--|--|--|
| | g conservation units, thus, allowing the | | | | |
| Brazil. movement of species between these protected areas. | | | | | |
| | | | | | |
| The implementation of Ecological Corridor, however, is carried out by ICMBio pure of comprehensive guideline. | The implementation of Ecological Corridor, however, is carried out by ICMBio pursuant to local conditions in the absence of comprehensive guideline. | | | | |
| MMA is promoting the establishment of Mosaic and the proposal of the "Jalapão M | osaic" has a good quality. MMA is | | | | |
| expecting it to become the 14th Mosaic in the country. | issure mas a good quanty. 171711115 | | | | |
| • The Cerrado is rich in biodiversity and recognized as a "hotspot", but nowadays it is | s threatened by agriculturaldevelopment | | | | |
| and livestock farming. As such, it is particularly significant for the Bahia to have | joined the "Jalapão Mosaic". The | | | | |
| average deforestation area per year (2002-2008) in the Cerrado is 14,000km², twice | the size of that in the Amazon (about | | | | |
| $6,000 \text{km}^2$) | | | | | |
| 1-2 Change of mandate/structure and staff of implementing ICMBio • Change of mandate of the chief of EESGT in 2010 to improve the project execution | | | | | |
| agencies that may affect the project implementation. • DMOC received two environmental analysts to improve the structure of the Project. | • | | | | |
| New Project Director was assigned in Jan 2012. | | | | | |
| 1-3 Alignment of the Project with the needs and expectation MMA • MMA gives a priority to the Certado conservation, which is promoted by such police of the project with the needs and expectation MMA. | ries as: | | | | |
| of implementing agencies. 1) Establishment of "Sustainable Certrado Program" in Nov 2005 2) Advantage of "The Action Plane for Program" in Nov 2005 | | | | | |
| 2) Adoption of "The Action Plan for Prevention and Control of Deforestation and Fin MMA intends to incorporate the example of the "Jalapão Mosaic" when the Plan is | | | | | |
| • The importance of conserving the Cerrado remain unchanged for ICMBio and MM. | | | | | |
| • It is also important for the São Felix to have created MONA as it proves that a muni | | | | | |
| MMA consider the mechanism of the "Jalapão Mosaic" to become a model example. | | | | | |
| Mosaics in the country. The mechanism of the "Jalapão Mosaic" should be establish | | | | | |
| If the project is extended, a main activity of the period would be an initial operation | | | | | |
| newly established "Jalapão Mosaic" | , | | | | |
| | | | | | |
| | • There are already 13 Mosaics in Brazil, and three (No 1,6 and 8) are situated in the Cerrado. The Jalapão mosaic is goi | | | | |
| to be the largest mosaic (3,280,045 ha) when registered. No Name Year of Creation State | e(s) Number of | | | | |
| No Name real of Cleation State | Conservation | | | | |
| | Units Involved | | | | |
| 1 Mosaico Capivara-Confusões 2005 P | | | | | |
| 2 Mosaico Central Fluminense 2006 R | | | | | |
| 3 Mosaico da Bocaína 2006 RJ/ | | | | | |
| 4 Mosaico da Mantiqueira 2006 RJ/SI | | | | | |
| 5 Mosaico Lagamar 2006 SP/ | | | | | |
| 6 Mosaico Grande Sertão Veredas 2009 M 7 Mosaico do Baixo Rio Negro 2010 Ai | ~ | | | | |
| 7 Mosaico do Baixo Rio Negro 2010 Al | | | | | |
| 9 Mosaico Mico-Leão-Dourado 2010 R | | | | | |
| 10 Mosaico Extremo Sul da Bahia 2010 B | | | | | |
| 11 Mosaico Foz do Rio Doce 2010 E | | | | | |
| 12 Mosaico Carioca 2011 R | LJ 22 | | | | |
| 13 Mosaico da Amazônia Meridional 2011 AM/R | O/MT 40 | | | | |
| • The "Jalapão Mosaic", once officially established, can be an exemplary mos | aic in that it engages broad range of | | | | |
| stakeholders at the municipal, state and federal government level, and that its Strat | | | | | |
| and consultative way with these stakeholders. | C | | | | |
| All the components are of great value to the management of protected areas. | | | | | |

| | 1-4 Priority areas of the Government of Japan for the development assistance to Brazil. | JICA Brazil Office | Generation of information and data necessary for the management of the ecological corridor Creation of Jalapão Mosaic – strengthening for integrated management between protected areas and institutions. Training of the team (staffs) for the management of the ecological corridor Formation of environmental councils (municipal protected areas and mosaic) Creation of a program for environmental education Definition of priority areas for conservation and definition of strategies necessary for the ecological sustainability of the Jalapão region. The "Jalapão Mosaic" is well developed in its idea and plan, but its mechanism still need to begin operation. The "Jalapão Mosaic" can be a good practice for other mosaics only through its actual implementation. JICA's ODA Rolling Plan for Brazil gives a priority to the environmental conservation. Brazil is one of the richest countries in biodiversity with Amazon, Pantanal and Cerrado, but its valuable flora & fauna are threatened by the enlargement of cultivation and pasturing. Also, land use, land use change and forestry (LULUCF) accounts for three quarters of Brazil's GHG emission, and hence forest preservation is important in terms of climate change mitigation as well. As such, in the Rolling Plan, the Project is included in the Climate Change Program under the priority area of environmental |
|-----------------|--|--------------------|--|
| 2 Effectiveness | 2-1 Attainment level of output 1 (Information for JREC management is collected, analyzed and organized). | ICMBio | Remaining activities: 1) Complete the final version of ATLAS of Jalapão – some maps are still being developed. 2) Finish installing the project Web-GIS in SEPLAN-TO |
| | | SEPLAN | SEPLAN's homepage is currently being modified to be linked to the new, updated Web-GIS system in SEPLAN network which was already set up. http://corredorjalapao.seplan.to.gov.br/jalapao/ An official inauguration ceremony of the Web-GIS is scheduled on 1 Nov 2012 in Palmas. |
| | | JET | Web-GIS database was transferred from ICMBio to SEPLAN on 6 Jul 2012. This system set up by the Project to collect and provide information of Jalapão is to be managed by the State government of Tocantins and not by ICMBio. The ownership of the server machine and database software provided by JICA is to be transferred from ICMBio to the state government of Tocantins. Regarding means of information sharing and dissemination, not only Project Homepage/Web-GIS but also printed materials are important because internet are not available in some communities. |
| | 2-2 Attainment level of output 2 (Institutional arrangements for JREC management are structured). | ICMBio | Remaining activities: 1) Signature of cooperation term between ICMBio and Bahia State 2) Signature of the act for the creation of the "Jalapão Mosaic" 3) Establishment and training of the Council of the "Jalapão Mosaic" on the developed Strategic Plan → This is one of the main reasons that the Project requires extension by six more months. |
| | 2-3 Attainment level of Output 3 (Capacity of staff in ICMBio and other institutions are developed for JREC implementation). | JET ICMBio | The Reciprocity Term was signed on 29 Sep 2011. Remaining activities: 1) Training in Japan scheduled in Nov 2012 2) Web-GIS training for SEPLAN staff 3) Final knowledge exchange training between the staff of Jalapão Mosaic and Grande Sertao Veredas Mosaic. 4) Counterpart meeting in 2012 and 2013 5) Final Seminar 2013. |
| | | JET | Training, technical exchange, study visits have been conducted 20 times by the time of Terminal-evaluation. Also, open seminars have been conducted 4 times. |
| | 2-4 Attainment level of Output 4 (The linkage between local populations and institutions is strengthened for JREC conservation). | ICMBio | Remaining activities: Complete the management plan of the municipal natural monument (MONA) Finish the São Felix cartographic database (CAR) |
| | | JET | Formations of 11 municipal ordinances were promoted by the Project to re-establish COMATUR (Mateiros, Ponte Alta and Rio da Conceicao) and COMTURMA (São Felix) as well as to create MONA. The MONA, created on 7 July 2012 in São Felix by the signing of the decree No 034/2012, is the first municipal conservation unit in the State of Tocantins, which will be a part of the integral protection of the "Jalapão Mosaic". A video image summarizing the experience of MONA creation in São Felix was produced in Oct 2012 in hopes of extending |

| | | | the SMUC to other municipalities. • Before the project, ICMBio's office for EESGT in Rio da Conceição was not really recognized by the local populat With the implementation of the Project, the EESGT office, having promoted environmental education, the establish EESGT Council, and the capacity development activities for COMATUR, has formed a good working relationship concerned local institutions for the conservation of EESGT. | | | | ucation, the establishment of |
|---|--|----------------|--|---|---|--|---|
| | | Municipalities | aree on the following p Municipality Pont □ Alta Rio da Conceição Mateiros São Félix - Activity ideas discussed São Félix (hiring full-tir Materiros (restoration o Ponte Alta (establishmer Rio da Conceição (refor | ercent of ICMS Ecologic Date of Signature 9 Oct 2012 10 Oct 2012 11 Oct 2012 11 Oct 2012 at COMATUR/COMTU me fire fighters, develop f forests, hiring full-time nt of SMUC, waste dispo | co for the us Percent 50% 30% 20% 25% URMA using ment of wase fire fighter osal, etc.) f urban river | ere signed between the mayors and se of COMATUR/COMTURMA # of the council members 14 (+14 deputies) 12 (+12 deputies) 14 (+14 deputies) 8 (+ 8 deputies) the ICMS-Ecologico ste disposal plan, nursery for tree se se, rural water supply with Tocantin se, promotion of turism, prevention as held on 26 Oct 2012 in Palmas we dissussed in the second se | edlings, env. education, etc.) s Sanitation Agency, etc) of fire, waste disposal, etc) ith participants from 6 |
| 2 | 2-5 Attainment level of Output 5 (The strategic plan/guideline for managing JREC is developed). | ICMBio JET | refined, whereas the pr • A workshop to discuss | the "Jalapão Mosaic" pa eparation of part III (ope the operational guideline | , , | | |
| 2 | 2-6. Prospect of the Project Purpose (Institutional capacity of ICMBio is strengthened) to be achieved by the end of project period, March 2013. | ICMBio | Strategic document on 8-10 Nov 2012. The Project need six more months to fully achieve its Purpose. Once the proposal for the "Jalapão Mosaic" is recognized by MMA, it is required to establish the management council and to prepare the strategic plan. The Council is to represent broad range of stakeholders from municipalities, state and federal governments associated with the nine protected areas composing the "Jalapão Mosaic". The representation of a good cross-section of concerned stakeholders in the Council based on legislation will be a significant feature of the "Jalapão Mosaic", and can lead to a more effective mechanism for biodiversity conservation. | | | | |
| | | JET | With the reasons below, the Project is most likely to achieve its Purpose by the end of Project, Apr 2013. There are two indicators set for the project purpose: 1) the consensus on the Strategic Plan for the "Jalapão Mosaic"; 2) at the development of mechanism to promote the biodiversity conservation in Jalapão region. As for 1), the Strategic Plan has been developed through a participatory and consultative process (e.g. workshop and seminar). It is regarded that basic consensus on the Strategic plan has already been formed through the Reciprocity Term (Sep 2011) as well as the agreement and development of proposal on the "Jalapão Mosaic" (Aug-Sep 2012). Part I (diagnosis and justification) and Part II (action plan) of the Strategic Plan will be completed by the refinement of existing documents, and Part III is scheduled to be discussed in a workshop planned on 6-8 Nov 2012. Person who are responsib to complete the Strategic Plan are already identified (Mr. Allan from ICMBio, Mr. Asano from JET, Mr. Leonardo from INEMA-BA, and Mr. Marcos from JICA consultant). Hence, it is presumed that the Strategic Plan is developed and agree upon by the end of the Project. As for 2), with the launching of the Web-GIS (expected in Nov 2012) and the development of the Strategic Plan (expected by Mar 2013), it can be concluded that the mechanism is established for the Jalapão conservation. Once the Proposal of the "Jalapão Mosaic" is recognized by MMA, the mechanism is further consolidated. It is important to point out that attainment of Output 2 (institutional arrangements) and Output 4 (engagement of local population and municipalities) is the basis upon which the intended mechanism is built. | | | | |

| | 2-7. Demonstrated case of increased leadership of ICMBio towards relevant institutions. | | | | | | | |
|--------------|--|------------|--|--|--|--|--|--|
| 3 Efficiency | 3-1 Clarity and understanding of PDM, the overall plan of the project. | JET | PDM was revised on 5 May 2011. Activities have since been conducted according to the revised PDM and PO, and there has been no notable delay of implementation. | | | | | |
| | | ICMBio | PDM is regarded as a good tool to design and monitor a project by the counterparts. Accordingly, action plan in the "Jalapão Mosaic" Strategic Plan is framed using PDM format. | | | | | |
| | 3-2 Input of Japanese side – dispatch of experts. | JET | • R/D was signed on 20 Nov 2009. The Project started with the dispatch of Japanese experts in April 2010. | | | | | |
| | | Site visit | Three Japanese experts have learned and spoken Portuguese to some extent, which apparently contributes to a casual and better communication with Brazilian counterparts and local populations. For example, the chief of JET delivered his opening speech in Portuguese at the conclusion seminar on 26 Oct 2012 in Palmas, and it was received with applause by the audience. | | | | | |
| | | ICMBio | The dispatch of JET was implemented through repeated short-term visits. Decision-making on matters concerning project implementation was sometimes difficult during the absence of JET. Full-time presence of JET leader (all year long) would be much better for the best operation of the Project. | | | | | |
| | 3-3 Input of Japanese side – training in Japan. | ICMBio | Trainings (subject/curriculum, duration & timing, selection of trainees) were good. | | | | | |
| | | JET | The counterparts who participated in a training in Japan realized the importance of participation of local populations in environmental management (e.g. the establishment of environmental council). This experience has encouraged them to be engaged in participatory and consultative approach of the Project. | | | | | |
| | 3-4 Input of Japanese side – provision of equipment. | ICMBio | Provision of equipment (specification, quantity, timing of delivery) was good. | | | | | |
| | 3-5 Input of Brazilian side – assignment of counterpart personnel. | JET | The cooperation and coordination among federal/state government organizations, municipalities, local populat (teachers) and partners organization (university and NGO) were significantly improved through project implementation. | | | | | |
| | 3-6 Input of Brazilian side – disbursement for project operation. | ICMBio | Provided from ICMBio only. Not from state governments (SEMADES, NATURATINS, and SEPLAN) | | | | | |
| | 3-7 Communication (periodical and daily) for project | ICMBio | The Project faced some difficulties in making decisions in the absence of the JET leader. | | | | | |
| | coordination – between ICMBio and JET. | JET | • JCC meetings were held 4 times: 4 May 2010, 5 May 2011, 9 Dec 2011, 15 May 2012. | | | | | |
| | 3-8 Communication (periodical and daily) for project coordination – among Brazilian organizations. | ICMBio | The lack of ICMBio office in Palmas-TO and Salvador-BA has caused some difficulties in project implementation. | | | | | |
| | 3-9 Methods and contents of technology/knowledge transfer from JICA experts to ICMBio counterpart and partner organizations. | ICMBio | Technology transfer was good. | | | | | |
| | 3-10 promoting/hindering factors that may have affected the Project implementation. | ICMBio | ICMBio doesn't have a branch office in Palmas where state counterparts (SEMADES, NATURATINS and SEPLAN) are based. JET, stationed in Palmas, has ensured the coordination and cooperation between ICMBio and state counterparts in Project implementation. This has been a big promoting factor for effective and smooth project execution. | | | | | |
| | | JET | The Project ranges over Brasilia (ICMBio), Palmas (State government of Tocantins) and municipalities in the Jalapac region. The distance among these Project sites cost time and efforts of those who are involved in the Project (e.g. travel by car of local people to participate trainings held in other municipalities and Palmas) | | | | | |
| 4 Impact | 4-1 Prospect of achieving the overall goal (ecosystem conservation of Jalapão region is enhanced through the introduction of the ecological corridor) in 3 to 5 years after the termination of Project in March 2013. | ICMBio | The overall goal will be fully achieved. It is expected that the "Jalapão Mosaic" is established during the Project period, by Apr 2013. The continuation at development of activities associated with the Jalapão Mosaic have a good potential to achieve the overall goal. Conservation Units composing the Jalapão Mosaic | | | | | |
| | | | No Name Manager Estados Area (ha) | | | | | |
| | | | 1 Parque Nacional das Nascentes do Rio ICMBio 000.00.0156 729,814 | | | | | |

| | | | 2 | Estacao Ecologica Serra Geral do Tocantins (EESGT) | ICMBio | 0000.00.0076 | 716,306 | |
|------------------|---|---------------|--|---|--------------------|--------------------|--------------------------|--|
| | | | 3 | Area de Protecao Ambiental (APA) da Serra Tabatinga | ICMBio | Not registered yet | 61,000 | |
| | | | 4 | APA do Rio Preto | INEMA | 000.29.1016 | 1,146,162 | |
| | | | 5 | Estacao Ecologica (EE) do Rio Preto | INEMA | 0000.29.0898 | 4,536 | |
| | | | 6 | APA do Jalapão | NATURATINS | 0000.17.1499 | 461,730 | |
| | | | 7 | Parque Estdual (PE) do Jalapão | NATURATINS | 0000.17.1486 | 158,885 | |
| | | | | Reserva Particular do Patrimônio Natural | Private | 0000.00.2082 | | |
| | | | 8 | (RPPN) Catedoral do Jalapão | | | 326 | |
| | | | | MONA dos Canyons e Corredeiras do | Prefecture of São | Not registered yet | 1.206 | |
| | | | 9 | Rio do Sono | Félix do Tocantins | | 1,286 | |
| | | | TO | ΓAL | | | 3,280,045 ha | |
| | | | | | | | | |
| | 4-2 Ongoing/possible collaborations, if any, with multi/bi-lateral development partners (UN, NGO, civil society, and private sector) | | | There are some outputs produced outside of the Project activities specified in the PDM. With the initiative of EESGT/ICMBio and CEULP/ULBRA (Lutheran University Center of Palmas/Lutheran University of Brazil), a memorandum of three-year cooperation to promote environmental education was signed in April 2011 between the two entities. DicMBio and the State of Bahia signed a memorandum for cooperation. Cooperation. Working relationship between the State of Bahia and Tocantins at the technical level was promoted through implementation of the Project. This is significant as the Bahia side of the Jalapão region is more threatened by development of agriculture. The awareness on environmental conservation and the effectiveness of integrated prote areas have been raised by the Project. "Prevention, control and monitoring of forest fires and illegal burning in the Cerrado" (2012-2015) for the Cerrado of Jalapão and for the Mosaico Rio Doce by BMU/GIZ/KfW I) Improvement of the management of protected areas Reduction of forest fires in Jalapão Development of technologies for automatic quantification of burned areas "Sustainable Cerrado Initiative Program" (2010-2013) by World Bank Creation of protected areas and research ICMBio is also carrying out a technical cooperation for Mosaico do Baixo Rio Negro with Amazon State and for Mosaic Extremo Sul with Bahia State. | | | | |
| | 4-3 Any positive/negative impact brought about by the Project (Policy and research development, Poverty reduction, environmental protection, and gender equality.) | JET ICMBio | Any negative impacts were mentioned or observed throughout the Project implementation. | | | | | |
| 5 Sustainability | 5-1 Prospect from institutional viewpoint (Legislation and | ICMBio | From the institutional point of view, all the five Project outputs are likely to be sustained. | | | | | |
| | policies, Rule and regulation, standard operational procedures, Responsible organization and division, Participation of stakeholders) | JET | Activities of the Project are regarded a part of the role/responsibility of counterparts' daily work. | | | | | |
| | 5-2 Prospect from technical viewpoint | ICMBio | From the technical point of view, all the five Project outputs are likely to be sustained. | | | | | |
| | (Technology/knowledge and its update, Deliverables and its maintenance, Educational materials Training opportunities) | | The capacity development of COMATUR for the four municipalities will be completed within the Project period. After that, ICMBio will not conduct capacity development activities for COMATUR, but only maintain communication within the framework of Jalapão Mosaic. ICMBio will not carry out activities to establish other COMATUR, either. | | | | | |
| | | JET | Training to counterpart (ICMBio) was prepared based on the need assessment, thus leading to good reception of transferred technologies by counterparts. | | | | | |
| | 5-3 Prospect from Human Resource viewpoint (Number of staff, Assignment of responsible personnel, His/her | ICMBio | • Fro | om the human resource viewpoint, the prospect d change of staffs and people of federal/state go | | | ise of possible transfer | |

Parnaíba (PNNRP)

| qualificat volunteer | ion and motivation, New recruitment and) | | Academia Nacional da Biodiversidade - ICMBio can provide a training on biodiversity conservation based on its annual training plan. It conducted training in Aug 2012 on Mosaic management for 35 staffs from Bahia and Tocantins. |
|-------------------------|---|--------|--|
| | rom Funding viewpoint (Budget allocation for ties, External financing from donor/private | ICMBio | From the financial viewpoint, the maintenance of database server and update of homepage/WebGIS will have no difficulty but reproduction of printed informational materials or production of new materials will be difficult. ICMBio doesn't have budget set aside to work with 13 Mosaics in the country, but once the mechanism of Jalapão Mosaic is established (e.g., development of the Council, internal rules and the Strategic Plan), the Mosaic will be sustained within the existing system. The Jalapão Mosaic will involve not only government staffs but also people from private sector, whose travel to attend the Council may not be covered by the budget from the government. The "Jalapão Mosaic" ranges over 16 municipalities in three states. As such, it is important to prepare a realistic and viable budget plan to sustain the Jalapão Mosaic in the Part III (Operational Guideline) of the Strategic Plan. In developing such a budget plan, the Council of the Mosaico Rio Doce that is supported by BMU/GIZ/KfW and is effectively carrying out its operation could be examined and used as reference. |
| | | JET | It is important to bring in external finances from e.g. GEF. MMA has a joint project with German's BMU. The Project has invited those who are involved in the BMU's project and Project's activities of environmental education and capacity development of municipalities could be taken over by BMU's project. |

