

**Terminal Evaluation Report**

**INTERNATIONAL TRAINING COURSE**

**ON**

**INTEGRATED MANAGEMENT OF PRODUCTIVITY**

**Japan International Cooperation Agency**

**JICA/Brazil**

**December 2006**



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**LOCATION MAP OF THE PROJECT**



**Paraná State, Curitiba City  
Brazilian Institute of Quality and Productivity in Paraná  
IBQP/PR**













## **Abbreviations**

**MCT**- Ministry of Science and Technology

**MCI** – Ministry of Trade and Industry

**IBQP/PR** – Brazilian Institute of Quality and Productivity in Paraná.

**MRE** – Ministry of External Relations of Brazil

**ABC** – Brazilian Agency for Cooperation.

**JICA** – Japan International Cooperation Agency.

**PDM** – Project Development Matrix

**PNQP** – National Program of Quality and Productivity

**PALOPS** – African Countries of Portuguese Official Language

**IT** – Technology and Information



## Summary

<b>1 Outline of the Project</b>	
<b>Country: Brazil</b>	<b>Project title: Course on Integrated Management of Productivity</b>
<b>Issue/Sector: Quality and Productivity</b>	<b>Cooperation scheme: TCTP – Program on Third Country Training</b>
<b>Division in charge:</b> <b>Dept.</b> <b>Division</b>	<b>Total cost US\$262,630 or Yen</b> <b>Cost per participant : US\$ 4,955 or Yen</b> <b>Share of Japan’s Contribution : 70%</b>
<b>Period of Cooperation</b>	<b>(R/D): May 11, 2001 ~ May 31, 2005.</b>
	<b>(Extension): n/a</b>
	<b>(F/U): n/a</b>
<b>Partner Country’s Implementing Organization :</b> <b>Brazilian Institute of Quality and Productivity in Paraná</b> <i>(Instituto Brasileiro da Qualidade e Produtividade no Paraná - IBQP/PR)</i>	<b>Supporting Organization in Japan:</b>
<b>Related Cooperation:</b>	<b>Technical Cooperation Project (June 01, 1995 ~ May 31, 2000).</b>
<p><b>1-1. Background of the Project</b></p> <p>In June 1990 the Brazilian Government started a “National Program on Quality and Productivity” with the aim to improve the quality and productivity of Brazilian enterprises, in addition to the promotion of privatization of public companies as well as to the process of opening of the national market to foreign investments.</p> <p>This Program was introduced in many Brazilian organizations and in 16 States actions of this Program were developed. The Brazilian Government presented a technical cooperation project proposal to the Japanese Government in order to support the improvement of quality and productivity in Paraná Sate. As a response to this request, the Japanese Government initiated a Technical Cooperation Project on June 1, 1995 and concluded on May 31, 2000. The Project results were significantly and highly recognized, as stated by the Japanese evaluation team in 2000.</p> <p>IBQP/PR has become one of the important Brazilian centers for training, studies and consultancy in the field of Quality and Productivity. This cooperation produced an improvement in the technical level at IBQP/PR and qualified the Institute to carry out a Training Program for professionals of other Latin American countries and PALOP, with the support from the Japanese Government.</p> <p>JICA, IBQP/PR and the Brazilian Cooperation Agency (ABC) in 2000 had a serial of discussions over the implementation of the training course in the field of Quality and Productivity for professionals of Latin America and PALOPS. Based on the technical cooperation experience of IBQP/PR with JICA and ABC, on May 11, 2001 it was signed a Record of Meeting (R/D) in Brasília establishing the Training Program in Third Countries on “Integrated Management of Productivity”, for a period of 05 years.</p> <p><b>2-2 Project Overview</b></p> <p>The Overall Objective of the Project is the technical improvement of knowledge and skills of professionals from Latin American countries and the Lusophone African Countries (PALOP) through</p>	

the TCTP Courses on “Integrated Management of Productivity. The courses should have been conducted by IBQP/PR, each with approximately 160 hours and count with up to 13 participants from invited countries, and a maximum of 05 participants from Brazil.

## (1) Outputs of the Training Program

### 1) Overall Goal:

Knowledge and Technologies related to the Integrated Management of Productivity applied and disseminated by participants in the Latin American countries and the PALOPS, as well as in the Brazilian society.

### 2) Project Purpose:

The qualification of professionals on Integrated Management of Productivity is improved through the training carried out by the Courses of TCTP/IBQP-PR.

1) **Output 1:** Knowledge, technique and methods learned/improved through the Courses.

2) **Output 2:** Knowledge and skills acquired in the Courses are applied by the participants in their work environment.

3) **Output 3:** Exchange established among the participants, instructors and IBQP/PR.

## (2) Inputs

### Japanese side:

Short-term Expert 3  
Invitation expenses: US\$ 183,564

### Brazilian’s Side:

Counterpart 55 persons  
Local Cost US\$ 79,066 ( \_\_\_ Yen)

## 2. Evaluation Team

<b>Members of Evaluation Team</b>	Local Consultant appointed by JICA: Mrs. Clarice Zilberman Knijnik.	
<b>Period of Evaluation</b>	December 5, 2005 to March30, 2006	<b>Type of Evaluation:</b> Terminal

## 3. Results of Evaluation

### 3-1. Achievement of the Training Program.

Courses	JFY 2001	JFY 2002	JFY 2003	JFY 2004	Total
Number of applicants	26	35	42	35	138
Number of applicants selected	16	14	15	18	63
Participant Countries	6	7	9	9	11
Term (in days)	24	25	25	24	98

### 3-2. Evaluation Results.

#### (1) Analysis on the Achievement in terms of Outputs

Outputs	FY 2001	FY 2002	FY2003	FY2004
<b>P1</b> – Have the knowledge level of participants been improved?	AA	AA	AA	AA
<b>P2</b> – Are the participants making use of the knowledge and technologies acquired through the training in their work environments?	AA	AA	AA	AA
<b>P3</b> – Have exchanges among participants, instructors and IBQP started?	PA	PA	AA	AA

**AA:** Achieved; **PA:** Partially Achieved; **NA:** Not Achieved.

As regards **Output 1**, the annual evaluation results responded by the participants suggested that the average of those who are very satisfied or satisfied with the objective and contents was of 91%, confirming the learning in the TCTP Courses. The participant evaluations carried out by instructors



stated that 80% considered the results achieved by students to be *Excellent* and 20% considered it to be *Good* (between 51% and 79%). Through the questionnaires returned following Course conclusion it can be confirmed that 87% stated a degree of 80% concerning comprehension and acquisition of the knowledge and skills introduced in the Course.

As regards **Output 2**, following Course conclusion and return to home countries, the participants stated that: 36% changed their position and 64% did not change positions in their organizations; in cases of change within the organization, such change was made through professional promotion to leading functions. Among the participants, 73% remained in the same job after finishing the course; in the case of job changes, the participants continued to make use of the acquired knowledge. Furthermore, it could be highlighted that: 73% of participants consider the knowledge acquired during the Course to be very useful to their daily work; 100% used the knowledge in new proposals and projects in their countries of origin; and 100% of participants have disseminating the knowledge acquired.

As regards **Output 3**, it could be noticed that 100% of the participants keep in contact with people related to the course after returning to their home countries. Fifty-seven percent of these contacts are via the Internet whereas 19% are by means of visits by other participants and instructors.

The results and short-term outcomes of the Project were achieved throughout the 04 courses, and thus contribute to a very satisfactory achievement of the Purpose and the Overall Goal. The Purpose of the Training Program was achieved through the dissemination of knowledge and skills on Management of Productivity to the 53 foreign and 10 Brazilian participants, during the TCTP Courses.

## **(2) Relevance**

The Project was designed and adequately implemented, and it met the needs of participants in the field of Integrated Management of Productivity. The existing demands of Latin American Countries and PALOPS were previously identified. Throughout the four TCTP, students and professors stated the adequacy and relevance of the strategy to develop activities in this field of Productivity with these countries. The training program was highly organized to provide participants with theoretical and practical information to make them key professionals in their organizations.

Eighty-seven percent of the participants who were contacted during the evaluation process stated that the Courses were highly relevant and adequate to the needs of the training beneficiaries, as well as to the respective institutions in their countries of origin. Seventy-three percent of the participants considered the knowledge acquired during the course to be very useful in their daily work, but this number could be higher if they did not face difficulties related to technical and financial resources in their countries of origin. One hundred percent of participants have been disseminating the knowledge and skills acquired and improved in the TCTP Courses.

The Project is still in conformity with the National Policy on Quality and Productivity. It is also one of the priorities of the Japanese Cooperation with Brazil, as well as for the Program on Technical Cooperation – ABC and the Brazilian Ministry of Foreign Relations. The Project was considered by the evaluation team as *highly relevant* during the period of JY2001~JFY 2004.

The TCTP on “Integrated Management of Productivity” is a very important training program regarding the needs and policies of the targeted countries that are dealing with the overcoming of quality and productivity issues. Course participants are qualified to have an excellent overall view of the subject and are apt to disseminate the attained knowledge and skills in their home institutions. The continuous use of networking and cooperation among developing countries’ participants and instructors of IBQP/PR is very important for the sustainability of the learning process that was started with the scope of the Course.

## **3-3. Factors promoting sustainability and impact**

### **(1) Factor concerning to Planning**

- The high management and execution capacity of IBQP/PR as the executive organization to carry out training courses, as well as its stable financial and technical resources;
- Selection of countries with similarity of culture, language and needs in the field of Productivity;
- Selection process of participants based on quantified criteria.

### **(2) Factors concerning to the Implementation Process**

- Methodology and strategy adopted by IBQP/PR for the development of the Courses: objectives,

structure, organization and support; as well as high instructor qualification;  
- Permanent evaluation of contents, structure and instructors of the modules, adding suggestions and comments of participants and instructors;  
- Quality of technical material provided during the training course to participants and adequate technical visit

### **3-4. Factors inhibiting sustainability and impact**

#### **(1) Factors concerning to Planning**

N/A

#### **(2) Factors concerning to the Implementation Process**

N/A

### **3-5. Conclusion**

The Project effectiveness and efficiency are considered highly satisfactory. The actions undertaken are likely to sustain mid-term benefits fostered by the Project, provided JICA resources can be ensured for the implementation of a new TCTP Project. The short-term impacts and immediate outcomes achieved by the Project after the training of professionals from Latin American and PALOP were evaluated as highly satisfactory.

These professionals have been using and disseminating the knowledge and technologies improved through the Courses, as long as there are proper technical, financial and infrastructure conditions for doing so. Exchanges of information and consultations have also been carried out among participants and with instructors of IBQP/PR.

The outputs achieved by the Project were technically adequate, occurred within the planned deadline and at lower costs than in other TCTP Projects held in this specialized field. The technical, administrative and budgetary allocations of IBQP/PR for the Project execution were considered highly satisfactory. The results and short-term outcomes achieved by the Project contributed to the very satisfactory achievement of the Purpose and Overall Goal of the Project.

IBQP/PR as an institution has its financial, technical and institutional sustainability ensured so that it can continue its activities in the field of Quality and Productivity.

The evaluation team considers the Project as highly successful and highlight the following Outputs that have been achieved during this period: participants are qualified to have an excellent overall view of the Integrated Management of Productivity (theoretical and practical contents); they are using and disseminating the knowledge, abilities and techniques in their home institutions; the participants considered the Course to be highly relevant and adequate to the needs and to productivity development policies in their home countries; and a network information interchange is quite operational among participants and instructors

### **3-6. Recommendations**

1- The main recommendation to the Brazilian counterpart refers to the continuity, in the forthcoming years, of this initiative in order to keep up with the Project results. Thus, it is recommended that IBQP/PR continue to: (i) provide mutual cooperation to participant countries of the TCTP Courses; (ii) be able to secure financial resources with third sources; and (iii) develop negotiations with other developing countries and JICA to ensure linkages for the sustainability of the new TCTP Courses.

2- In order to maintain high level of technology and keep up with current development of this field, IBQP/PR has to make maxim efforts to update their knowledge with modern know-how, researching and collecting information of excellent cases and exemplars inside and outside of Brazil.

### **3-7. Lessons Learned**

1- The selection process of participant countries should consider similar levels of economic and entrepreneurship development as a criterion.

2- The similarity of the culture, context and languages spoken by participants' countries, among one another and with Brazil has yielded a high degree of satisfaction and efficiency in the transference of knowledge and the exchange of experiences in this sector.

### **3-8. Follow-up Situation**

IBQP/PR is proposing the renewal of TCTP Project for another five-year period to JICA.

<b>1. 案件概要</b>	
国名：ブラジル	案件名：プロジェクトタイトル：生産性統合的管理研修
部門：品質・生産性	援助形態：第三国集団研修
所管部署：JICA ブラジル事務所	協力金額総計：US\$262,630 研修員一人当たり金額：US\$ 4,955 日本の支出比率：70% (US\$183,564)
協力期間	(R/D)：2001年5月11日から2005年3月31日まで
	延長：無し
	F/U：無し
先方関係機関：ブラジル品質生産性研究所パラナ研究所 (IBQP/PR)	日本側協力機関：
関連協力	1995年6月1日から2000年5月31日まで実施した技術協力プロジェクト

### 1-1 協力の背景と概要

ブラジル政府は国内市場の外国資本への開放及び公社の民営化に引き続き、国内企業の品質生産性向上を目指して1990年6月に「品質生産性国家プログラム」開始した。

このプログラムは多くの国内企業に導入され、16の州において関連の活動が実施された。ブラジル政府はパラナ州の品質生産性向上を支援するための技術協力プロジェクトを日本政府に提出し、協力を求めた。要請に応じた日本政府は1995年6月1日に技術協力プロジェクトを開始し、同計画は2000年5月31日に終了した。2000年に日本チームにより実施された評価の通り、プロジェクト成果は顕著であり、広く知られている。

IBQP/PR (ブラジル品質生産性研究パラナ研究所)は品質生産性の人材養成、調査、コンサルタントの分野において国内有数のリファレンスセンターとなった。この協力によりIBQP/PRの技術水準が向上し、同研究所は、日本政府の支援のもと、ラテンアメリカやPALOP(ポルトガル語を公用語とするアフリカ諸国)の技術者のための研修プログラムを実施することとなった。

JICA、IBQP/PRとABCはラテンアメリカ諸国やPALOP諸国のための品質生産性分野での研修を実施する協定を2000年に開始した。IBQP/PRはJICAとの協力実績に基き、2001年5月11日に、ABC(ブラジル協力庁)も含めた3者で、5年間の生産性統合的管理のための第三国研修実施を定めたRD(Record of Discussion)にブラジリアで調印した。

### 2-2 協力内容

研修は生産性統合的管理分野でラテンアメリカ及びPALOP諸国の技術者の知識・能力を技術的に向上するために計画された。研修は毎年IBQP/PRが実施し、1コース160時間の予定で、対象国の研修員13人/年とブラジル国内の研修員を最大で5人/年で実施した。

上位目標：生産性統合的管理にかかる技術とノウハウが、ブラジル国内はもちろん、ラテンアメリカ及びPALOP諸国にて本研修に参加した研修員によって普及され、活用される。

プロジェクト目標：生産性統合的管理にかかる専門家の能力が本件研修参加により向上する。

#### (1) 成果

1) 成果 1: 研修で得た/改善された知識、技術、手法を習得する。

- 2) 成果 2: 研修で得た知識・能力を仕事で応用する。  
 3) 成果 3: IBQP/PR、研修員、教官の間の交流が開始する。

(4) 投入(評価時点)

日本側 :

短期専門家 3名  
 研修員受入経費 US\$183,564

相手国側 :

カウンタパート配置: 55名  
 土地・施設提供 ローカルコスト負担 US\$ 79,066

2. 評価調査団の概要

調査者	在外コンサルタント: Clarice Zilberman Knijnik 氏	
調査期間	2005年12月5日から2006年3月30日	評価種類: 終了時評価

3. 評価結果の概要

3-1. 実績の確認

コース	JFY 2001	JFY 2002	JFY 2003	JFY 2004	合計
応募者数	26	35	42	35	138
選定された研修員数	16	17	16	16	63
参加国	6	7	9	9	11
期間(日数)	24	25	25	24	98

3-2. 評価結果の概要

(1) 到達目標達成度

到達目標	FY 2001	FY 2002	FY2003	FY2004
P1 - 研修を受けた分野での研修員の知識レベルは改善されたか?	AA	AA	AA	AA
P2 - 研修員は研修で得た知識及び技術を職場で活かしているか?	AA	AA	AA	AA
P3 - IBQP、研修員及び教官の間の交流は開始されたか?	PA	PA	AA	AA

AA: 達成 PA: 部分的に達成 NA: 非達成

成果1に関しては、毎年各コースごとに参加者が記入するアンケートによると目的・内容に満足していると大変満足している答えた参加者の平均は91%である、講師による研修員の評価は、80%が研修員の得た成果がとても良いと答え、20%が良い(51%から79%の間)と答えた。研修終了後

に送付した質問状の回答結果、87%の研修員が研修で教えられた知識・能力の80%以上の理解・吸収したと回答している。

**成果2**に関しては、研修後、自分の国へ帰国した後、36%が昇進し、64%は勤務している組織内での変化は無かった。組織内での移動の場合、昇格し、管理職についている。73%が、研修終了後同じ職場にとどまっている。職場が変わった場合でも研修員は研修で取得した知識を活用している。特筆すべきは73%が研修で取得した知識が日常業務に役立っていると答え、100%が自国での新規計画や新規案件において取得した知識を活用したとし、100%が知識の普及に努めていることである。

**成果3**に関しては、研修員の100%が帰国後、研修関係者とコンタクトをもち続けている。連絡方法は57%がインターネット、19%が他の研修員や教官の訪問を受けている。

プロジェクトの短期的な成果・効果は4つの研修を通じて達成され、総合的目標の満足的な達成に貢献した。これは53名の外国研修員及び10名のブラジル人研修員に対する生産性管理の知識・能力の普及を通じて達成された。

## (2) 妥当性

プロジェクトは生産性統合的管理分野における参加国の必要性に答える形で適切に企画・実施された。ラテンアメリカ及びPALOPS諸国のニーズは事前に調査された。4つの研修実施の間、この様な国々を対象に生産性の分野で活動を展開する戦略の適切性及び妥当性が教官及び研修員により確認された。

評価のためにコンタクトをとった元研修員の87%は研修内容が受益者、所属機関及び各国の開発政策に適合していたと答えた。研修員の73%が研修で取得した知識が日常業務に役立っていると答えたが、各国での技術・財政・施設・機材面での問題がなかったならばこの数字はより高かったと思われる。元研修員の100%が第3国研修で改善した知識及び手法の普及に努めていると回答している。

プロジェクトはブラジルの品質生産性政策とも整合性を保っている。ブラジルとの日本の協力の中で優先順位が高く、又ブラジル外務省及びABCの技術協力プログラムの中での優先順位も高い。

上記により、2001年から2004年の期間実施された研修コースは妥当性が非常に高いと判断される。

## 3-3 効果発現に貢献した要因

### (1) 計画内容に関すること

- 実施機関のIBPQ/PRは高い管理能力及び人的資源養成研修実施能力を持ち、技術・財政資源が安定している。
- 文化、言語、生産性分野での人材養成ニーズ等、共通の特徴を持った国を選定したこと。
- 定量的基準に基づき応募者から研修員を選定したこと。

### (2) 実施プロセスに関すること

- コース開発のためにIBQP/PRが採択した戦略及び手法:目的、体制、組織及び支援並びに高レベルの教官。
- 各モジュールの内容、体制及び講師の継続的な評価を行い、教官や元研修員のコメント、提案等を積極的に導入したこと。

- 研修員に配布した教材の質が高かったこと及び現場視察を行ったこと。

### 3-4 問題点及び問題を惹起した要因

#### (1) 計画内容に関すること

無し

#### (2) 実施プロセス関連要因

無し

### 3-5 結論

プロジェクトの効率性及び効果は非常に高いと判断できる。仮に、新規3国研修はプロジェクト実施のために JICA の協力が再度得られれば、中期的にはプロジェクトが生み出した便益を維持することができる可能性が高い。ラテンアメリカ及び PALOP 諸国の技術者の能力強化が行なわれた後にプロジェクトが達成した短期的なインパクト及び即時効果は高いと評価できる。

元研修員は、自国の財政・技術・インフラ事情が許す限り、研修で得た知識及び技術を活用・普及している。また、元研修員同士や教官との情報交換や相談による交流が頻繁に行なわれている。

本プロジェクトの成果は技術的に適切であり、予定された期限内に達成され、この分野の他の第3国研修との比較して低コストで実施された。プロジェクト実施に必要な IBQP による技術、事務及び財政的な投入は十分に満足のものであった。プロジェクトが達成した短期的な成果及び効果はプロジェクトが上位目標の達成に大いに貢献した。

IBQP/PR は品質生産性の分野の活動を継続するための技術的・組織的・財政的持続性を組織として有している。

上記により、本プロジェクトは、期限内に成果、目的、目標を達成した非常に成功したプロジェクトとであると評価できる。

### 3-6 提言

- 1- ブラジル側カウンターパートに対する最大の提言はこれからも活動を継続し、プロジェクト成果を維持し続けていくことである。よって IBQP/PR は次の活動を継続する事が望ましい: 第3国研修に参加する他の国に対して相互協力を行なう; 第3の資金源を確保する; 第3国研修に参加する他の国々の政府機関及び民間企業からの支援を取り付ける; 第3国研修の新規コースの持続性のための連携レベルを保つために3者協議を行なう。
- 2- IBQP/PR は、現在の技術レベルを持続し。当該分野の最先端の技術に遅れをとらないために、ブラジル国内・国外の優れた事例にかかる情報を積極的に収集し、知識・技術のアップデートに最大限努力する。

### 3-7 教訓

- 1- 参加国の選定基準として同等の経済・企業的開発レベルを持つことが考慮されるべきである。
- 2- 参加国間及びブラジルとの間での開発レベルの同等性と言語共通性により、知識伝達・経験交流が効率よく行なわれた。

### 3-8 フォローアップ状況

5年間延長要請書を作成及び送付中。

# **Chapter 1 –Outline of the Evaluation Study**

## **1.1 Objectives of the Evaluation Study**

The objective of this study is to evaluate the results achieved with the conclusion of the I, II, III and IV Courses on Integrated Management of Productivity Project as a TCTP Project started on May 11, 2001 to May 31, 2005, with IBQP/PR as the Brazilian implementing agency. The agreement foresees for the organization of the V course, to take place in the beginning of 2006(JFY2005).

The evaluation should consider the relevance, efficacy, effectiveness, impact, and sustainability of the Project through the results achieved with the completion of 4 TCTP courses with 63 participants from 11 countries of Latin America and PALOPS.

The main questions that oriented this study are:

- a. Has project transferred knowledge and technologies with appropriateness?
- b. Has the project attends the needs and policies of targeted countries?
- c. Has the project promoted the network and cooperation among developing countries?
- d. What are the major factors that promoted or impeded to the occurrence of effects?
- e. What are the major lessons learned that should be considered at the planning and implementation stages of a project for sustainable effects after the termination of cooperation? Is sustainability secured?

## **1.2 Members of Evaluation Study Team**

Mrs. Clarice Zilberman Knijnik - JICA's independent consultant.

## **1.3 Period of the Evaluation Study**

The Evaluation Study was carried out from 5<sup>th</sup> December 2005 to 30<sup>th</sup> march 2006.

## **1.4 Methodology of Evaluation Study.**

The Evaluation Study was based on the following methodological procedures:

- 1 – Comparative analysis of Actions Plan for implementations of the 4 TCTP Courses and the achievements of the of the Project
- 2 – Consultations with: Brazilian and Japanese interlocutors; monitoring reports of the Project's implementation; and evaluation of achievement of indicators of outputs, purpose and overall goal.
- 3 – Proposition of Guidelines for the Evaluation Study:
  - (i) Five Criteria Evaluation Grid;
  - (ii) Evaluation Table of Project achievements based on the PDMe; and
  - (iii) Operational Plans for JFY2001 to 2004 agreed by JICA and IBQP/PR.

- 4 – Discussion and consultation with the IBQP/PR Coordination regarding Guidelines and Procedures.
- 5 – Data collection, analysis and interpretation to obtain answers to the main questions on the Evaluation Grid; and elaboration of a narrative summary of the Project's results with its completion based on the PDMe;
- 6 – Presentation to IBQP/PR and JICA for comments to the preliminary version of the Project Terminal Evaluation Report.
- 7 – Approval of final version of the Terminal Evaluation Report by ABC, IBQP/PR and JICA.
- 8 - Elaboration of the Minute of Meeting agreed at the Terminal Evaluation Report of the Project

This evaluation was mainly based on: **(i)** Interviews with key people for the continuity of project's implantation at IBQP/PR; **(ii)** Technical documents, reports and materials consultation concerning TCTP Courses evaluation in the period of JFY 2001-2004; **(iii)** Visits, interviews and questionnaires applied to Brazilian ex-participants and trainees from the period of JFY 2001-2004; and **(iv)** Relevant corporations and institutions concerned in the continuity of the implementation of TCTP Courses of the Project.



## **Chapter 2 – Outline of the Training Program**

### **2.1 – Background of the Training Course**

In June, 1990, the Brazilian government started an activity so-called the Brazilian Program for Quality and Productivity (PBQP) with a purpose to upgrade quality and productivity, in addition to promoting deregulation such as important liberalization and introduction of foreign capitals, and privatization of government –own enterprises. This Program has been introduced in many organizations and developed in 16 states.

The Brazilian government submitted a request to the Japanese government a project type technical cooperation to improve productivity in the Paraná State.

In response to the above request, the Japanese government in 1994 dispatched two technical missions to discuss the Project. The IBQP/PR was created in January, 1995 and the record of discussions was signed in April, 1995. Based on the R/D the Project started on June, 1, 1995 with 5 years cooperation period at IBQP/PR as the implementing agency.

The Project concluded on May 31, 2000 with important achievements and IBQP/PR became widely recognized as a leading productivity organization in Brazil, as such indicated in the terminal evaluation report in 2000.

The IBQP/PR reached the level at which they were able to continue and enhance productivity improvement activities. This Project promoted the necessary conditions to transfer knowledge and capabilities obtained in Productivity sector to other developing countries from Latin America and PALOP, with support from JICA.

Under these circumstances, the government of Brazil considered important to carry out a training course about Productivity under JICA's Third Country Training Program to be implemented by IBQP/PR, having Latin America and African (Portuguese speaking) countries as Target.

JICA through its Coordinator in Brazil for Technical Cooperation had a series of discussions with Brazilian Government with respect to the framework of a training course in the Integrated Management of Productivity under JICA's TCTP.

Both Governments agreed to the implementation of the referred Training Program for a 5 years period and signed an R/D on this matter, in May 11, 2000, in Brasília.

## 2.2 – Summary of the Initial Plan of Training

(1) Course Title	Courses on Integrated Management of Productivity
(2) Number of participant a year	13 from invited countries and from Brazil is limited to five (5).
(3) Duration	4 weeks
(4) Year of cooperation	JFY 2001 ~ JFY 2005

### 2.2.1 - Requirements for Application

(1) Level of knowledge and/or technique which participants are expected to have	-to be graduated from university, specialized, science or management, engineering, economics, administration, psychology, etc. -to have a good command of spoken and written Spanish or Portuguese or English,
(2) Desirable Current Position/Duties	-to be presently engaged, or expected to be engaged in the future in private and public organizations involved in national efforts and activities linked to Q&P.
(3) Years of Experience in the sector/issue in question	-to have practical experience, in the areas mentioned above -to be nominated by their respective Governments
(4) Age Limit	- to be in good health, in order to complete the Course
(5) Target Countries	Angola, Argentine, Bolivia, Cape Verde, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guinea-Bissau, Honduras, Mexico, Mozambique, Nicaragua, Panama, Paraguay, Peru, Sao Tome and Principe, Uruguay and Venezuela.

The Initial Cooperation Plan was presented as follows:

#### (1) Overall Goal:

*Knowledge and Technologies related to the Integrated Management of Productivity applied and disseminated by participants in the Latin American countries and the PALOPS, as well as in the Brazilian society.*

#### (2) Project Purpose:

*The qualification of professionals on Integrated Management of Productivity is improved through the training carried out by the Courses of TCTP/IBQP-PR.*

### **(3) Outputs:**

**Output 1:** *The level of understanding of the knowledge, techniques and methods of participants in the field of training subject improved.*

**Output 2:** *Participants are using and disseminating the knowledge and skills in the training course at their work.*

**Output 3:** *The exchange network among participants, lecturers and training institution established and strengthened.*

### **2.3 – Revision of the Initial Plan**

Based on the evaluations carried out after each training course, the organization team has made some limited changes in the initial curriculum, textbooks and the didactic material in regard to topics of more interest aiming at fulfilling the participants' demands.

## **Chapter 3 – Achievement of the Training Program**

### **3.1 Implementation Framework of the Project**

The Project was implemented within the IBQP/PR, in particular through the Coordination of Training and Human Resources. The current administrative and institutional structure of the Institute is similar to the one at the time Project I (1995-2000) was implemented.

Since 12 December 2002, the Brazilian Institute of Quality and Productivity in Paraná has been recognized by the Federal Government as Civil Society Organization of Public Interest (OSCIP), allowing the development of Project and partnership agreements with public and private organizations.

The IBQP/PR is a non-profit private entity, of national scope, composed by enterprise associations, governmental and non-governmental organizations, professional associations, technical and scientific institutions, universities and citizens.

The IBQP/PR is basically composed of the following bodies. Members of enterprises, associations and relevant institutions in the sector of Quality and Productivity development compose these Boards. These boards meet regularly at least once a year.

1. General Assembly;
2. Administration Board;
3. Fiscal Board;
4. Board of Directors;
5. Board on Institutional Policy;
6. Technical and Scientific Board.

The implementation framework of the TCTP Program is directly linked to the Technical Director of IBQP/PR, who is subordinated to the Superintendent Director of the Institute. The Coordination of Training and Human Resources composes the Strategic Unit of the Technical Director, which has Professor Fulgencio Torres in charge. In the referred Unit takes part the Program Coordinator, Mrs. Ana Beatriz Tiemi K. Sugisawado.

All other areas of technical, administrative and financial support of IBQP/PR participated in the designing, execution and evaluation of the Project, but 14 persons were placed directly at the TCTP Project. As a means to implement the Project, the Institute counted with instructors, which belong to IBQP/PR personnel as well as hired Consultants to be instructors or lecturers in the TCTP Courses.

The Institute counted with 10 Brazilian instructors for the realization of the I TCTP; 13 instructors for the II TCTP; 14 instructors for the III TCTP and 12 instructors for the IV TCTP. Out of these instructors throughout 4 years about 8 professionals were Consultants.

The Project was proposed to qualify professional with knowledge and technology in the field of Integrated Management of Productivity, even if in their countries this issue would not count with an expressive development.

The selected countries had in common the fact they are considered “developing” or “least developed” countries. This was previously agreed between the Governments of Brazil and Japan, according to the information available on the phase of the Productivity Project I.

The IBQP/PR, during September of each year, presented a proposal for the realization of a new Course. In partnership with JICA and the ABC, an Agreement was adopted containing the following information: schedule of the selection process; countries to be invited; human and financial resources; a proposed Course program and design for the presentation of publicity material regarding the TCTP Course for the upcoming Japanese Fiscal Year.

The Courses were developed through classrooms, visits to companies that would make possible to identify the real situations of the issues dealt with in the classroom, working groups and lectures. At the end of each course, participants presented a Working Plan, which could be developed after returning to their country of origin.

In terms of evaluation and monitoring, IBQP/PR following each course would carry out an evaluation process with participants and instructors. These reports were sent annually to JICA for its follow-up and monitoring of the activities; as well as a mean to appoint improvement to be introduced in the following TCTP Course in terms of: new modules, contents, didactic materials or related to the teaching methodology of instructors.

### 3.2 – Achieved results in terms of Outputs.

Due to the nature of this type of technical Cooperation, which does not count with a PDM, it was necessary to elaborate a scheme of reference questions for the verification of Outputs achieved. We mention the referred tool and the results gathered as follows:

Output	JFY 2001	JFY 2002	JFY2003	JFY2004
1 – Has the level of understanding of participants in the field of training subject improved?	AA	AA	AA	AA
2 – Are the participants using the knowledge and skills obtained in the training course in their work?	AA	AA	AA	AA
3 – Was the exchange among participants, instructors and training institution strengthened?	PA	PA	AA	AA

**AA:** Achieved; **PA:** Partly Achieved; **NA:** Not Achieved.

As regards **Output 1**, the results of annual evaluations carried out by participants has showed that the average of those very satisfied and satisfied with the objectives and contents was of 91%, confirming the knowledge acquired through the TCTP courses.

Evaluation of participants carried out by IBQP/PR instructors, after the 04 Courses, showed that 80% considered **Excellent** the results achieved by students and 20% considered it **Good** (between 51% and 79%).

In relation to the questionnaires submitted after the conclusion of the Courses, it can be said that 87% stated a degree of comprehension and acquisition of knowledge and skills provided by the Course was of more than 80%.

Related to the previous knowledge of the management technology presented during the Course, 47% of the students answered they “do not know it” and 46% stated “yes, but not deeply”.

As regards to the transfer of technology to the course’s effectiveness, it was evaluated as “high” by 79% of the students, while 21% evaluated as “partially effective”.

The participants considered an advantage the fact the Course was held in Brazil due to: linguistic and cultural identity; similar Latin American problems; a more developed technological level and technical knowledge in productivity issues than in their countries; geographic proximity and possibility of developing joint-projects; and useful interchange of experiences.

They had also referred as a disadvantage the limited number of participants of their countries in TCTP’s Course, if held in their own countries it could have a greater number of professionals trained at the same time.

Therefore, the evaluation team considered this Output completely achieved, given the testimonies of participants obtained not only through the annual evaluations but also through the feedback of the questionnaires and interviews with Brazilian participants and instructors.

In relation to the **Output 2**, the ex-participants indicated in the annual evaluations of the Course and answering the questionnaires after returning to their home countries:

- 36% has changed functions and 64% not changed functions within their organizations; in the case of changes inside the organization, its occurred due to professional progression, on which participants occupied a leading position in the Productivity field.
- 27% changed jobs and 73% remained in the same job following the Course conclusion; in the case of changing of jobs, the participants kept on making use of the knowledge acquired in the Course, in new job opportunities with the Universities, Government and Consultancy.
- 73% considered the knowledge acquired very useful for their daily work, while 27% indicated that it has been useful (50% to 80%); and 100% used the knowledge in new proposals and projects in their country of origin.
- 100% are disseminating acquired knowledge through debates with bosses and colleagues, providing didactic material; organizing workshops and in their daily work.
- 87% considered the courses as very important for the need and policies of their Countries and 13% considered it partially relevant (especially due to the difficulties faced by public administration and to the lower national development of productivity sector);

- 64% faced difficulties in permanently incorporate new knowledge in their day-to-day work due to the lack of resources, lack of foreign experts and national trained personnel; as well a lack of equipments. One of the inhibitory factors mentioned was the need to generate a national constructive “thinking production” on the issue.

-77% wishes to count with external support for better disseminate and use the knowledge and skills acquired during the Course. The type of support was stated as follows: 31% from JICA; 34% from the IBQP/PR and 27% from Government of the Countries of origin.

As a result it is possible to evaluate as completely achieved this Output 2, on what concerns the use of the knowledge and skills acquired during the Courses by the ex-participants, in their daily activities.

It is important to highlight that, due to external factors to the TCTP Training, the ex-participants are facing some difficulties in the application of the knowledge in their country of origin, such as: lack of financial, technical and technological resources; lack of higher number of professionals working in the field of training; or still reduced level of development and structure of the Sector.

Regarding **Output 3**, it could be noted that 100% of the participants keep in contact with other related persons to the Course, after they returned to their countries. Within these contacts, 67% is carried out with other participants; 22% with professors and lecturers and 11% with others. These contacts are 57% made through Internet, 19% through visits of other participants or instructors.

During interviews with personnel of IBQP/PR it was stated that more human, financial and technical resources are needed in order to keep the Latin American Network on Productivity with a more pro active action towards the participants of the Training Courses.

At the same time, it was identified financial difficulties in invited Countries to the continuity of actions with IBQP/PR in the Productivity Projects.

This Output 3 can be evaluated as partially achieved by the Project, since most of participants kept in touch with related persons of the course after returning to their countries. However, only 22% of them kept in touch with lecturers and IBQP/PR. Although an important communication channel was implemented through the Course and the existent LAPNET for the continuity of exchange of information network and cooperation among ex-participants, IBQP/PR, lecturers and other relevant institutions related to Productivity.

### 3.3 – Achievements in Terms of Activities

The results of activities carried out are shown as follow:

	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>Total</b>
Number of Applicants	26	35	42	35	138
Number of Participants	16	14	15	18	63
Countries participated	6	7	9	9	11
Duration (days)	24	25	25	24	98

The TCTP Courses were provided to participants of 11 countries; 26% from Colombia; 16% from Brazil and 10% from Chile. The country out of the PALOP that participated was Mozambique. A distribution of this participation in the total of courses carried out is presented as follows:

#### Country of Origin of Participants – I, II, III and IV TCTP:

<b>Country</b>	<b>Number of participants</b>
1. Argentina	4
2. Bolívia	1
3. Brazil	10
4. Chile	6
5. Colombia	17
6. Costa Rica	2
7. Cuba	5
8. Moçambique	3
9. Paraguai	5
10. Peru	5
11. Uruguay	5
<b>Number of participants</b>	<b>63</b>

### 3.4 – Achievements in Terms of Inputs

The costs are referred to the period JFY 2001 ~JFY 2004 for the realization of 04 Training Courses; counting with 53 participants from invited participants countries. The Brazilian participants pay for their own costs. The Agreement provides for another course in the JFY 2005 that is now organized by IBQP/PR.

<b>Total Cost:</b>	.	.	.	.	.	.	.	USD 262,630
<b>Cost per participant:</b>	.	.	.	.	.	.	.	USD 4,955
<b>Japanese counterpart:</b>	.	.	.	.	.	.	.	70%

The Japanese costs were of USD 183,564, through the support of: air travel expenses; per diem; lodging and health insurance of 53 participants and the short-term attendance of 03



experts. The Brazilian costs were of USD 79,066 supporting: expenses with professionals and training costs.

The Cost breakdown of the Project, in USD, as following indicated:

FY	JICA	IBQP/PR	Total	Cost per participant
2001	50,150	21,166	71,316	5,482
2002	45,078	19,300	64,378	4,952
2003	45,078	19,300	64,378	4,952
2004	43,258	19,300	62,558	4,812
<b>Total</b>	<b>183,564</b>	<b>79,066</b>	<b>262,630</b>	-
<b>Average</b>	<b>45,891</b>	<b>19,767</b>	<b>65,658</b>	<b>4,955</b>

It should be highlighted the decrease of 11,5% in the Japanese and Brazilian participation costs from 2001 to 2004, showing that the experience in conducting Courses has produced a reduction in the total costs.

The same could be said in relation to comparison of costs per participant in 2001 and 2004, on which it is possible to envisage a reduction of 11, 4 %. This reduction of the execution costs was obtained since the execution of the II TCTP.

### **Inputs Synthesis:**

#### **Japanese side:**

Long-term Expert: n/a

Short-term Expert 3

Invitation expenses: US\$ 183,564 (airfares, per-diem, accommodation, medical insurance.)

Equipment: n/a

Local cost: n/a

Others: n/a

#### **Brazilian's Side:**

Counterpart: 55 persons

Local Cost US\$ 79,066 (training expenses including transportation)

Equipment: Accomplished

Land and Facilities: Accomplished

Others:

## **Chapter 4 – Evaluation Results**

### **4.1 – Evaluation based on 5 criteria**

In order to gather evaluation results (outputs, outcomes and impacts) achieved by the Project, a Final Evaluation Scheme was used for guidance, focusing on questions based on 05 criteria: relevance, effectiveness, efficacy, impact and sustainability.

#### **4.1.1 – Relevance:**

The Project was designed and adequately implemented, meeting the needs of participating countries in the field of Integrated Management of Productivity. The existent demands of Latin American countries and PALOP were previously identified at the time of the elaboration of Training Course Curriculum.

Throughout the 04 Training courses, the adequacy and relevance of the strategy to develop activities primarily in this field and with these countries it was stated by students and instructors.

Some of the reasons presented for the relevance of the South-South cooperation:

- (i) Appropriateness of technologies that can be transferred among countries and regions, which are similar in their own context and languages (Spanish and Portuguese);
- (ii) The resources can be more efficiently used at a lower cost when compared to developed countries and
- (iii) The technical and financial resources of the Japanese cooperation can generate new cooperation among developing countries in the field of Quality and Productivity.

In this context, the new transfer of techniques and knowledge to the neighboring countries with similar language (that Japan has initially transferred to IBQP/PR) could be successfully carried out later by the Institute, through this TCTP Program.

For 87% of the participants, the Project was highly adequate e relevant to the needs of the training beneficiaries, as well as for the respective institutions in their country of origin.

A process of effective management was kept by the Project's coordination team at IBQP/PR, making it possible to identify that the Institute was well managed in the Project period. This operational structure is based on a decision- making level very close to its personnel, which also keep a close coordination with the Administration Board of the Institute.

The Project is still highly relevant, which could be confirmed through:

- (i) Interviews carried out with 03 public organizations; 04 professional associations and 03 private companies, as well as 08 personnel and instructors from the IBQP/PR;
- (ii) Evaluation meetings attendance of ex-participants held in Curitiba with 06 Brazilian former participants; and
- (iii) Feedback of ex-participants of the TCTP Courses from several countries, through 15 questionnaires.

The Project is still in conformity with the National Policy on Quality and Productivity, which can be confirmed not only through the strategies of the Ministry of Science and Technology but also the Ministry of Development, Industry and Foreign Trade.

In Brazil, the following programs keep their priorities: Brazilian Program of Quality and Productivity; Competitive Brazil Initiative, Cooperation Network Brazil; SEBRAE National; Forum of State and Sector Programs on Quality and Productivity; and the Competitive Parana Initiative.

On what concerns the cooperation policy of the Japanese Government, it is possible to state that training activities on Quality and Productivity are continuing to be one of the priorities on what concerns JICA strategy with Brazil.

It is also one of the priorities of the ODA cooperation with Brazil, as well as for the Program on Technical Cooperation – ABC of the Ministry of External Relations in Brazil.

Due to TCTP characteristics and the Project relevance to the training (capacity-building) of Latin American countries and the PALOPS, it is noted that other national sources have been supporting activities in this sector, maximizing actions carried out by this Project. It can be mentioned, for instance, a large number of projects executed by the Ministries, OSCIP and Private Corporations.

The Japanese Cooperation for Training in the field of Productivity is technically widely recognized by the IBQP/PR and other relevant public and private institutions in Brazil. It is also very well appreciated by the countries invited to participate of this TCTP initiative. In fact this is due to the successful experiences of the Japanese on this issue, as expressed in several interviews with other relevant organizations, instructors and confirmed by participants.

The Project Purpose is in accordance with the Overall Project Objective, due to the permanent diffusion and dissemination processes of knowledge and technologies on Integrated Management of Productivity carried out by the IBQP/PR.

Through questionnaires and evaluations it is possible to state that 87% of students considered the Training Course highly relevant to the establishment of mutual cooperation among developing countries. Even if some of the participants had indicated that this issue is still at a very initial phase within the countries concerned.

The Project is considered *highly relevant* during the period of 2001 until 2004, as mentioned above.

#### **4.1.2 – Effectiveness.**

##### **Project Objective: (Purpose)**

*The qualification of professionals on Integrated Management of Productivity is improved through the training carried out by the Courses of TCTP/IBQP-PR.*

##### Evaluation indicators:

- 1- Installation, organization and TCTP training programs are implemented and operational;
- 2 – TCTP Training Courses on integrated management of productivity are established and carried out regularly;
- 3- IBQP/PR has a good reputation for those professionals that attended its courses, as well as for those that are participating of the TCTP training;
- 4- Course participants have improved their knowledge and techniques;
- 5 – Course participants are able to make use of the knowledge acquired at their work places;
- 6 – Course participants acquire knowledge through technological transference.

The outcomes, activities and inputs of the Project were achieved as previously stated. In this context, the Project Purpose was achieved in a satisfactory way and it is considered effective throughout the 04 TCTP Courses.

The Project has achieved the greater majority of results and activities through the improvement introduced to the technical knowledge of participants on Productivity Management.

The efforts produced in the period indicated that there is a likelihood of keeping fluxes of benefits by the participants in the productivity sector in their countries.

Currently it can already be evaluated some short-term outcomes initiated by the Project. Around 73% of the alumni are using the acquired knowledge and skills in their country of origin; 100% have been disseminating this new knowledge on productivity.

It is expected that future results and impacts will be achieved by the Project in this field of knowledge, as long as IBQP/PR keeps in the future the implementation of regular Courses for new foreign professionals in the sector.

It also should broader IBQP/PR current network of technical interchange with the ex-participants as well as the consolidation of its activities concerning Consultancy and Cooperation with other Latin American countries and the PALOP.

79% of respondent participants confirmed the high adequacy of the transfer of technology during the Course and 21% considered it partially adequate.

A greater short-term effectiveness is expected to be achieved in the forthcoming years in the case of least developed countries (Mozambique, Paraguay, and Bolivia), with a less developed policy for the productivity sector. Regardless IBPQ/PR action, professionals returning to these countries actually are facing more difficulties to use the knowledge and techniques acquired in the Course.

However, it is expected that this investment in human resources through the Project would be able to generate more medium and long-term benefits for the development of the Productivity sector in invited participants from developing countries than in the least developed countries.

Other factors that amounted to this effectiveness category were identified:

- (i) The methodology and strategy adopted by IBQP/PR for the development of TCTP Courses: objectives, structure, organization and support;
- (ii) The permanent evaluation of contents, structure and instructors, introducing the recommendation and comments of former participants and instructors; and
- (iii) Quality of the technical material provided to the participants.

As previously evaluated, the participants confirmed the comprehension of the contents, have been making use of the knowledge acquired in their countries of origin; and also have been disseminating the knowledge acquired to their partners and new people interested in the Productivity issue.

It can be assured that the Purpose of the Project was achieved in a very satisfactory level, being considered as very effective for this phase.

#### **4.1.3. Efficiency.**

The three Outputs executed were technically adequate, conducted in time and at reasonable costs for the achievement of the Project Objective.

The efficiency in implementing the Project is considered highly satisfactory in terms of significant efforts implemented by the Project Coordination team in order to carry out activities within the agreed schedule and allocated resources.

In relation to the adequate timing of inputs obtained: three short-term experts conducted their missions adequately; but the expert appointed to the IV TCTP (FY2004) was not sent to Brazil. This situation was evaluated as a negative aspect by participants, which expected to count with the participation of a Japanese expert in the training course. During interviews with IBQP/PR personnel it was highlighted the positive role that plays the participation of Japanese experts in the TCTP Courses.

Installation, technical and didactic material and the equipments made available by the Brazilian counterpart were adequate to the planning, and very well appreciated by the participants.

The efficiency in the Project implementation is considered highly satisfactory, on what concerns the significant efforts made by the IBQP team in order to achieve the planned targets; ensure the human and financial resources to achieve the Project outcomes.

The group of instructors was kept stable during the realization of the 04 TCTP Courses, ensuring a low rate of replacement of these teachers.

In the 04 TCTP Courses, 63 professionals out of 11 countries were trained, with an average of 25 training days and a total cost of USD 262,630. The average cost per person trained was of USD 4,955.

Another very efficient aspect in the Project was the decrease of the average cost per person trained from USD 5,482 in the FY2001 to USD 4,812 in the FY2004, representing a reduction of 11,5%.

It should also be evaluated that out of this average value, around 70%, that is USD 3,469, are undirected costs, such as those with travel, lodging and health insurance for the foreign participants.

If the referred course were carried out in Japan, the undirected costs would be significantly higher and the direct costs with instructors, installations and material would also be much higher.

The average national cost of the technical, administrative and operational realization of each Course achieved USD 19,767, which represents an average value of USD 314 per person trained (including Brazilian professionals).

Through a cost-benefit analysis of this sort of training in Brazil, it is possible to conclude that this relation is highly positive when results and short-term outcomes achieved by Project are evaluated.

This cost-benefit evaluation would be a lot more positive if we look at future economic impacts and medium-term outcomes related to participants' contribution for the establishment of policies on quality management in developing countries.

During interviews with IBQP/PR personal about the profile of participants, it was highlight two important aspects to take in account for the propositions of new courses:

- (i) The established selection process with criteria was very efficient to the course execution and results obtained. However it was selected participants from countries with few experience in the sector, given the initial development stage of Productivity in their own countries;
- (ii) The selected professionals were from public institutions, however, it was noticed the need to include professionals from the private sector as a means to have a greater participation of sector involved in the Productivity. This diversity would allow a broader dissemination of knowledge in the private sector of participant countries.

The permanent monitoring and evaluation system of IBQP/PR Courses, allowed some corrections made for TCTP Courses related to the contents, instructors and technical. The basic modules were kept along the training courses with increased workload of technical visits. It was also increased the time allocation of working groups, envisaging the technical elaboration of the Course's final project.

Through the participants comments, it was noticed the positive evaluation in relation to objective, contents and organization of the course. The results of the overall evaluation comprising the 04 TCTP Courses are following indicated:

### Course Objectives

	JFY 2001	JFY 2002	JFY2003	JFY 2004
Highly satisfactory	42%	50%	79%	53%
Satisfactory	40%	43%	15%	47%
Partly Satisfactory	17%	7%	4%	0%
No Satisfactory	2%	0%	2%	0%

### Program Structure

	JFY 2001	JFY 2002	JFY2003	JFY 2004
Highly satisfactory	26%	50%	80%	55%
Satisfactory	48%	27%	20%	35%
Partly Satisfactory	21%	16%	0%	10%
No satisfactory	5%	7%	0%	0%

### Organization and Support

	JFY 2001	JFY 2002	JFY2003	JFY 2004
Highly satisfactory	59%	66%	91%	82%
Satisfactory	31%	27%	9%	18%
Partly Satisfactory	5%	5%	0%	0%
No Satisfactory	4%	2%	0%	0%

The average costs for the execution of Project activities are in conformity with the Consultancy market in Brazil. In particular on what concerns the contracts with Brazilian teams or professionals for the conduction of lectures, courses and training.

IBQP/PR conducted, during the last four years, other training courses in the field of Quality and Productivity; developed consultancies for enterprises in Parana; kept playing an important role in the implementation of the Productivity Program for Paraná State and working with the Industry Association of Parana. These actions allowed the Course students to be in contact with other fields of Productivity sector, widening the Course outcomes.

One of the important aspects for the Project's efficiency is the elaboration by participants of a Productivity Project as a means for the training final evaluation. This kind of Project also ensures the Project's continuity upon the return of the trainee to his/her country of origin, since it represents an initiative on which each trainee will present to his or her authorities with the aim to implement it.

It is important to remark that often the trainees indicated as a relevant issue for the development of Productivity sector in their home countries, the establishment of similar Centers in their own countries, showing that IBQP/PR's experience is admired and allows the replication to other developing countries.

The Project efficiency was considered very satisfactory by the evaluation team, on what concerns the significant efforts made by the Institute in order to improve its visibility in the national and international context. It was also considered other factors previously analyzed, such as: adequate costs, inputs within the planed timing, schedule, and level of technical and operational quality of the trainings.

#### 4.1.4 Impact.

**Overall Objective:** *Knowledge and Technologies related to the Integrated Management of Productivity applied and disseminated by participants in the Latin American countries and the PALOPS, as well as in the Brazilian society.*

MDP Indicators and at the end of FY2004

1. Considerable number of students has successfully concluded the training;
2. The students are qualified due to the fact they reached a satisfactory level of learning through self-evaluations and evaluations of instructors at the time of the training conclusion;
3. The students make use of the acquired knowledge and skills learned during the training in their work environment at their home countries.

The results and short-term outcomes of the Project were achieved throughout the four training courses and contributed to the Overall Objective. The later was achieved through the dissemination of the knowledge on Productivity Management to the foreign participants.

The Project consolidated the necessary conditions in the Center as a means to become an important agent in the training of Human Resources in the field of Integrated Management of Productivity.

This qualification was carried out, mainly, through the improvement of the qualification of public employees of relevant organizations on this issue in the Latin American countries and the PALOP taking part in the training courses.

Another important impact was the beginning of activities of mutual cooperation, between IBQP/PR and countries participating in the Courses, in Productivity Projects, as it is the case of Colombia and Chile.

From JFY2001 ~ JFY2005, IBQP/PR has received 53 foreign students and 10 nationals through their 04 TCTP Courses. Out of these students, 95% are employed in governmental organizations and universities, and around 5% in the Brazilian private sector.

It was achieved by the Project an annual average of 13 foreign students trained with a learning level evaluated as satisfactory, achieving the indicator 1 of the MDP Overall Goal; as well as at least 2 Brazilian students per year on these training have successfully concluded their trainings.

Some participants' responses given are following indicated on: the learning level; use of knowledge acquired in their day work and dissemination of knowledge acquired in their home

#### **Learning level (understanding and assimilation)**

Very much (more than 80%)	<b>87%</b>
Some degree (more than 50%)	13%
A little (equal or less than 50%)	0%
No answer	0%



### Knowledge and skills acquired useful in daily work:

Very much (more than 80%)	<b>73%</b>
Some degree (more than 50%)	27%
A little (equal or less than 50%)	0%
No answer	0%

### Dissemination of knowledge

Very much (more than 80%)	<b>100%</b>
Some degree (more than 50%)	0%
A little (equal or less than 50%)	0%
No answer	0%

Through the analyses of the questionnaires, it can be stated that all participants are using the knowledge and technologies improved in the Courses, as well as 100% are conducting the dissemination of this knowledge in their home countries.

However, 64% of the participants faced difficulties in completely incorporating the knowledge in their daily activities at work due to: the lack of trained personnel and equipments, restrictions of financial resources and specialized foreign personnel.

Developing countries or least developed countries mainly face this situation, in particular in the public sector. Nevertheless, this scenario is beyond the Training Program.

87% of the participants have stated as highly important the training course for the policies of their respective countries and 13% as partly important. This fact, combined with the percentage of promotions (36%) of these professionals after returning to their countries, allows identifying that there is a high likelihood of being achieved the future impacts in this sector through the work developed by these professionals in the public organizations and the private sector.

On what concerns the questionnaires responded by the former instructors as well as interviews with professionals of IBQP/PR, it can be confirmed that 80% of students showed a high learning capacity and, at the same time, elaborated final projects with very good technical quality on the issue.

Unfortunately, IBQP/PR does not count with enough financial and technical resources to continue with the monitoring of the implementation of the Project in the home countries of the participants.

Selected answers that allowed the evaluation team to confirm the achievement of the Overall Goal are following presented:

### Participants' achievements

Excellent (more than 80% )	<b>80%</b>
Some degree (more than 50%)	20%
A little (equal or less than 50%)	0%
No answer	0%

- 1- Course contents and its teaching method;
- 2 – If the evaluation criterion is the certificate, all participants received it. Regardless the certificate, I believe the participants returned home with a great amount of new knowledge and experiences, which can be added to their institutions and contribute to the productivity development in their countries;
- 3 – The knowledge can be reproduced and contribute to the increase of quality and productivity in the private enterprises of the participant countries. In some countries the work was continued;
- 4 – All participants elaborated a project to be implemented in their home countries, based on what was learned.

100% of the instructors considered that the TCTP Project conduction produced very positive impacts for the capacity of the Institution on this issue and other abilities to conduct new training in other fields. This perception was confirmed through interviews with Brazilian enterprises and enterprise associations that have work with IBQP/PR via training and consultancies.

Another important factor was the establishment and functioning of a network between former instructors and participants, which will contribute to the achievement of the medium-term impacts of the Project. These contacts are carried out with: Colombia, Paraguay, Peru, Costa Rica, Mozambique, Argentina, Chile and Brazil.

Out of this network, technical consultations between Colombia and Uruguay were established. It was created new opportunities for partnership between IBQP and institutions from these countries.

As regards the difficulties faced by the participants in applying the knowledge acquired in their home countries, the instructors have also pointed out the main risks for the achievement of the direct and indirect impacts:

- 1- Opposition to the changes;
- 2 – Lack of institutional support and the effects of “urgency”, on which the routine ruins the ideas of planning and improvements;
- 3- Decision-making power and political, technical and institutional support;
- 4- Lack of autonomy to implement the project;
- 5 – In some cases, lack of practical experience of the alumni and local support to the implementation of discussed techniques;
- 6- Lack of resources and infrastructure;
- 7 – The financial recourses could be a barrier for the development of new projects in the countries, but it does not invalidate the program’s relevance since all concepts can be used in the already established projects.

Concerning the continuous achievement of the Overall Project Objective, 90% of those interviewed in this evaluation considered that up to 90% of the results originally proposed were achieved by IBQP/PR in the development of its training activities.

On what concerns the appropriateness of the training provided by IBQP/PR, interviews and questionnaires confirmed that the Courses met the needs of participants and public institutions, 86% of the participants stated that contents were adequate to the Productivity sector needs and 80% of the instructors stated that the contents were adequate to the participants profile and country needs.

The institutional partners stressed a high degree of initiative, great technical capacity and quality of the materials elaborated by IBQP/PR for its training, as well as alumni stated a great degree of satisfaction towards instructors, materials and contents of the Courses modules.

Interviews with stakeholders from IBQP/PR; public and private institutions and the participants allowed verifying that the Project implementation has achieved the following initial outcomes:

- (i) Collaboration of relevant institutions and private enterprises to the Sector through the training courses;
- (ii) Dissemination of knowledge, data and information use on Productivity by the alumni in their daily work; as well as other professionals in the same or other relevant institutions;
- (iii) Effectiveness of technical training actions of the TCTP Courses;
- (iv) Improvement of the professional capacity and technology transfer for the participants;
- (v) Experience in the use of the model of the Center on Productivity Training by the alumni, broadening the likelihood of similar establishments in other countries;
- (vi) Participants appointed to occupy important positions in governmental organizations of their home countries;
- (vii) Participants had new job offers in this field following the training conclusion.

Through the interviews and questionnaires it is possible to conclude that the Project's Overall Objective has been achieved through its actions in the field of human resources training on Integrated Management of Productivity.

These actions have ensured an improvement of the human resources in the sector at the Latin American countries and PALOP, which were invited to participate in the 04 TCTP Courses.

These improvements on capacity and use of the knowledge acquired by students are creating initial improvements in the management and planning of initiatives for the increase of Productivity in their home countries.

Therefore, the initial impacts can already be evaluated through the testimonies of Brazilian authorities, instructors, participants and enterprises in Parana that represent the Sector.

Based on the interview results, the evaluation team considered that short-term outcomes were achieved as a result of the Project's training action.

The following **short-term outcomes** were achieved:

Related to **indicator 1**, in these training courses 63 professionals were successfully trained in 4 TCTP Courses on "Integrated Management of Productivity"; they had acquired new technologies, experienced new practices and improved their technical knowledge; given the participants brought this knowledge to their working environment of their home institutions.

On the **indicator 2**, between 2001 and 2004, 63 professionals were qualified, as they had achieved a satisfactory level of learning upon conclusion of the Courses, by evaluation process. These results are crucial in order to IBQP/PR and JICA decide on the concession of a certificate of course conclusion to the participants.

Related to **indicator 3**, 73% of the alumni confirmed the use of more than 80% of the knowledge acquired and 23% stated the use of the knowledge (between 50% or 79%) in their working places. However, those who have been using less the knowledge, pointed out financial and technical difficulties of their home country institutions (least developed) as barriers to the plenty use of knowledge and technologies acquired on the Productivity issue.

It is important to highlight the good use of the synergy model formed by the training Courses. The implementation of these activities strengthened the participants and their institutions.

At the same time, this synergy model provided an opportunity for the exchange of information among those involved such as: Japanese experts, Brazilian professionals and participants from 11 countries, as well as to the establishment of a horizontal collaboration between these private and public institutions through the collaboration network (LAPNET and e-mails).

Therefore, the evaluation team is able to state that initial expected impacts following the realization of the 04 TCTP Courses were achieved.

#### **4.1.5 – Sustainability**

Following its conclusion, the Project could continue as an effective mechanism for the development of human resources in the Productivity sector.

The Project sustainability was highly ensured during its execution due to: excellent management capacity; technical and financial resources, installations and equipments and technical quality of the Training Courses.

The Institute's capacity to conduct courses was widened with the execution of the Project; it has also increased its consultancy work and established new partnerships.

The evaluation team believes that **technical sustainability** of the Project could be ensured in the coming years, since

**1** – Implementation of new training areas in Productivity or in deepening the issues dealt with in the TCTP Courses executed;

**2** - IBQP/PR has systematically carried out annual courses for the training of professionals in the private and public sector on quality, productivity, entrepreneurship and technological innovations for the management of enterprises;

**3** – IBQP/PR has been taking part in the national and international networks of relevant institutions of the quality and productivity sector;

**4** – IBQP has excellent installations for the conduction of training courses, very good experience in organizing the trainings, a financial and administrative support team; and is considered an excellent international center in its field of work;

**5** – The Institute invests on the capacity-building of its own human resources; keeps an action strategy for researches and projects, provides consultancy services to relevant organizations in the private and public sectors, as well as provides personalized training services to the private sector.

The basic organizational structure is stable. This structure has been characterized by the adaptation to new course demands, researches and projects. This process of adaptation is carried out through the hiring of new consultants and trainees. In the financial aspect, the budget has remained in balance and stable for the last 4 years.

This in fact has contributed to the sustainability in this period of Project execution and would suggest a high likelihood of institutional stability in the coming years.

New projects, researches and short-term courses makes the Center compensate its reduced personnel team through the use of external instructors, consultants and trainees.

It is very reduced the percentage of revenues to maintenance and update of the equipment. The Center still keeps necessary installations for the training courses, but seems to lack of a reasonable number of information technology equipments with better performance.

Other factor that increases the sustainability of IBQP/PR is its permanent evaluation process carried out by the students, not only on the contents, management, installations and equipments, but also on instructors and teaching methodology used.

These evaluations have been contributing to progressive improvement of contents and replacement of instructors in certain teaching modules. IBQP/PR carries out a monitoring and evaluation before the institutions that often request the short-term courses on Quality and Productivity.

Due to the permanent need for new short-term courses, IBQP/PR kept a high productivity in the elaboration of new materials and contents. The Institute has updated the didactic materials since the first Japanese cooperation and throughout the last 4 years, taking into account the comments of participants and new knowledge.

One of the important aspects for the Institute's sustainability is the direct relationship between the knowledge in the field of Courses and the feedback provided through Consultancies to the public and private sector.

The Project remains as an effective mechanism for the training of human resources on Management of Productivity as well as other issues in Q&P.

The Institute continues to conduct public relations activities, such as a *homepage*, video and institutional presentation for the new participants and clients. These activities have brought up an increase in the contacts with external organizations. Participation in seminars, conferences, and meetings during 04 years have widened the knowledge and brought greater visibility to the Institute through the National and State Programs on Productivity.

This sustainability evaluation is based on the following factors:

- (i) Factors related to the sustainability and continuity were not included in the Project design (only aimed to the realization of 05 courses);
- (ii) IBQP/PR is still keeping a communication network with the institutions in this sector and participants, as well as Institute has guaranteed a team of instructors highly qualified and recognized; and
- (iii) Some conditions after the Project's conclusion are ensured for its continuity: new fields of training on Productivity; new projects on development and consultancy.

Based on the interviews and questionnaires, it is possible to state that without external funding the Project sustainability will be partially ensured after its conclusion.

The conditions related to technical, financial and managerial sustainability of IBQP are ensured as an Institution of human resources education (without TCTP Program).

It is also possible to state that there is a high likelihood the Project outcomes could be achieved in a long-term, if external resources to IBQP will be ensured for the new TCTP courses.

The Institute counts with a strong political and institutional support of authorities in the sector in Brazil and Parana State, according to interviews and meeting held with the State Government and Associations representing the Program on Quality and Productivity.

The technology transferred through the Project has been kept and applied by its alumni, with a small number of them facing some difficulties due to the conditions in their home countries.

The Institute mentioned the need to allocate human and technical resources to increase the initiatives of the Latin American on Productivity Network (LAPNET), as well as improve the monitoring of new projects carried out by participants of TCTP Courses.

IBQP has exchanged information through the network with alumni and held a cooperation of at least 02 years with invited countries.

The organizational and institutional sustainability of IBQP is very satisfactory since its position in the institutional structure of the Program on Productivity and with other institutions is very solid and the Institute is nationally and internationally recognized for its capacity.

Institutional factors that have allowed, in the last 04 years, the achievement of results and immediate outcomes of the Project were the following:

- (i) Support of the high level management of IBQP/PR: high;
- (ii) Legal structure and regulations: high;
- (iii) Organizational capacity: high;
- (iv) Capacity within the organization: high;
- (v) Interorganizational capacity: high;
- (vi) Availability of financial resources: high;
- (vii) Enough permanent technical resources: medium high;
- (viii) Resources for the acquisition of equipments, maintenance and infrastructure: medium high;
- (ix) Support to Project beneficiaries: high; and
- (x) Support from federal, state and municipal governments: high.

## **4.2 – Conclusion**

### **4.2.1 – Factors related to the promotion of Project outcomes**

#### **4.2.1.1 – Factors related to the Project Design and Planning.**

The Project design originally proposed indirect actions for the technical and institutional strengthening of IBQP/PR, and direct actions for the improvement of the human resources training of professionals from Latin America and African countries working in the field of Productivity.

The contents and implementation method of the TCTP Courses were based in the improvement of the technical capacity of the internal personnel of IBQP/PR; implementation of distinct levels of linkages with private institutions of the Sector and the participation of private enterprises that would show the use of concrete cases in the technical contents of the Courses.

The joint of the theoretical and practical parts with the technical visits brought up an increase in the achievement of the Project Purpose and Overall Objective; as well as the conduction of final projects by the students has made it possible to continue the contacts between participants and instructors.

#### **4.2.1.2 – Factors related to implementation.**

During the Project (FY2001-2004) implementation, the evaluation team identified the following factors for promotion:

- 1 - Effective management of the institute related to activities, small-scale inputs, small budget, and human resources highly qualified with proper installations;
- 2 – Political support from the Government and relevant institutions of the Quality and Productivity Sector;
- 3- Requests from public and private organizations for the institute activities in the sector of Productivity Management: training, research and project development;
- 4- Excellent collaboration and cooperation relationship between public and private organizations in the Sector;
- 5 – Strengthening of the network of public institutions and private enterprises of the sector; as well as participants and instructors.

#### **4.2.2 – Inhibitory Factors for the Project outcomes.**

##### **4.2.2.1 – Factors related to Design and planning of the Project**

The original Project did not present impeditive factors related to its design and planning.

##### **4.2.2.2 – Factors related to implementation.**

The Project did not present impeditive factors to its implementation and monitoring.

#### **4.2.3 - Conclusion:**

The Project is in accordance with the Brazilian Policy on Productivity, which could be confirmed through the strategies of the Ministry of Science and Technology and Ministry of Foreign Trade; Secretariats, State Programs of Productivity Development and relevant Associations in this sector. It is also considered as one of the priorities of the cooperation policy of the Japanese Government, in particular within the framework of support to the development of human resources in developing countries in the field of Quality and Productivity.

The Project design originally ensured the conditions in order to IBQP/PR continue with its activities of training, research and project development in this field.

The Project effectiveness is considered as highly satisfactory. The actions undertaken are likely to keep medium-term benefits generated by the Project; as long as JICA resources could be ensured for the implementation of a new TCTP Project.

The short-term impacts and immediate outcomes achieved by the Project were evaluated as highly satisfactory, following the training of professionals from Latin America and PALOP. These professionals are using the knowledge and technologies improved by the



Courses, when financial, technical and infrastructure conditions in their home countries are favorable.

The outputs achieved by the Project were technically appropriate, were achieved within the planned deadline and at lower costs than other TCTP projects, in this field of strong technology and specialized knowledge.

The technical, administrative and budgetary allocation carried out by IBQP/PR for the Project execution was considered highly satisfactory, according to the evaluations held.

The outputs and short-term outcomes achieved by the Project contributed to achieve in a well satisfactory way the Overall Objective of the Project.

The Project JFY2001~ JFY2004 has implemented 04 TCTP Courses, on which have been trained 53 foreign and 10 Brazilian professionals on Management of Productivity, given that all presented a very satisfactory learning level according to IBQP/PR instructors' evaluation.

The Project Purpose was quantified on what concerns the trainings and those trained, and it was possible to identify an increase in the use of new knowledge and skills in their work places of their home countries. On the other hand, it was also noticed a greater demand in participation of the Courses organized by IBQP/PR than the 13 vacancies offered annually, representing a high potential for the Project's continuation in the coming 05 years.

Through the questionnaires it was possible to identify new areas of interest of the alumni in participating of IBQP/PR Courses. It is noticed that the training of up to 02 professionals of some countries should be increased, as a means to ensure a better usage of this knowledge towards the elaboration of policies and execution of Productivity Programs.

The evaluation team considers that the Outputs, Purpose and Overall Objective of the Project were achieved in a highly satisfactory way, as a result of the quality of the actions and initiatives in the field of training carried out by IBQP/PR and the follow-up of Japanese experts in some of the Courses held.

IBQP/PR as an institution has its financial, technical and institutional sustainability ensured to be able to continue its activities in the field of Quality and Productivity.

The evaluation team considers the Project as highly successful and has achieved in this period its outputs, purpose and overall objective.

## **Chapter 5 – Lessons Learned and Recommendations**

### **5.1 – Lessons Learned:**

#### **5.1.1 – Lessons learned related to the Country situation and Project Management.**

The main lessons learned were the following:

##### **Lesson learned 1:**

In order to ensure the use of Japanese knowledge and technology of the Project, it is recommended that: (i) the participation by videoconference of a short-term Japanese expert at each course; and (ii) in each 2 years a Japanese expert could be invited to implement a short-term training by videoconference to updated the knowledge and technologies to be transferred by IBQP/PR to its national and international trainees and clients.

##### **Lesson learned 2:**

The selection process of participant countries should take as a participation criterion, that is, those that would have similar level of economic and entrepreneurship development. This grading would bring the following advantages:

- (i) The technical module could count with similar responses for the learning level of participants as well as issues of more deepness could be approached as requested by the participants and according to the eventual interest during the course;
- (ii) Participants of least developed countries would need a greater work load for the basic module, due to the fact they have few experience with the issue, while those from more developed countries showed interest in other more advanced aspects of the basic issues.

##### **Lesson learned 3:**

The similarity of culture, context and language spoken by the participant countries of the Courses, among them and with Brazil, has allowed a high degree of satisfaction and efficiency in the transference of knowledge and promoted the exchange of experiences in this sector.

### **5.2 – Recommendations:**

#### **5.2.1 – Recommendation to the Brazilian counterpart.**

##### **Recommendation 1:**

The main recommendation to the Brazilian counterpart refers to the continuity, in the coming years, of this initiative in order to keep up with the Project results. Hence, it is advisable that

IBQP/PR continues to: provide mutual cooperation to the other participant countries of the TCTP Courses; and develop negotiations among three parties in order to ensure linkages for the sustainability of the new TCTP Courses.

**Recommendation 2:**

IBQP/PR should consider the use of highly qualified instructors, excellent infrastructure, high quality of the management and organization of trainings for the establishment of a new TCTP training program with other governmental institutions and the private sector of countries that have already attended the TCTP, as long as it could count with the technical and financial support from JICA.

**5.2.2 – Recommendations to JICA**

It is recommended that it could be ensured the bi-annual update of knowledge and technologies on Quality and Productivity through the appointment of short-term experts to IBQP/PR; as well as the participation of this type of expert at each TCTP Course held by the Institute.