

# **Ex-Post Evaluation Report**

## **Urban Transport Human Resources Development Project**

**Japan International Cooperation Agency**

**JICA/Brazil**

**December 2006**



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CEFTRU PROJECT LOCATION IN THE BRAZIL MAP



**Federal District - Brasília**  
**University of Brasília (UNB)**  
**CEFTRU**















## Abbreviations

**MC** - Ministry of Cities of Brazil

**DENATRAN** – National Department of Transit

**SNTMU** - National Secretariat on Transport and Urban Mobility

**MT**- Ministry of Transport of Brazil

**DNIT** - National Department on Transport Infra-structure

**CONIT** - National Board on Integration of Transport Policies

**ANTT** - National Agency on Regulation of Terrestrial Transport

**UNB** – University of Brasília

**CEFTRU** – Urban Transportation Human Resources Training Center

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

**ABC** – Brazilian Agency for Cooperation.

**JICA** – Japan International Cooperation Agency.

**PDM** – Project Development Matrix

**NGOS** – Non Governmental Organizations

**INMETRO** – National Institute of Metrology

**EBTU** – National Enterprise for Urban Transportation

**AGETOP** – State Agency for Transport and Public Works of Goiás

**DAC** – Civil Aviation Department

**INFRAERO** – National Agency for Civil Aviation

**SENAT** – National Service Training for Transport

**SEST** – Social Service for Transport

**CEFET** – National Center for Technology Education

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



## Summary

Evaluation conducted by: JICA Overseas Office

<b>I. Outline of the Project</b>	
<b>Country:</b> Brazil	<b>Project title :</b> Urban Transportation Human Resources Development Project
<b>Issue/Sector:</b> Transports/Traffic	<b>Cooperation scheme:</b> Project -Type Technical Cooperation
<b>Division in charge:</b> Social Development Cooperation Department	<b>Total cost</b> <u>395 Milion</u> Yen <b>Cost per participant :</b> _____ Yen <b>Share of Japan's Contribution :</b> ____%
<b>Period of Cooperation</b>	<b>(R/D) :</b> August 1, 1998 to July 31, 2002.
	<b>(Extension) :</b> n/a
	<b>(F/U) :</b> n/a
	<b>Partner Country's Implementing Organization :</b> Urban Transportation Human Resources Training Center (CEFTRU)
	<b>Supporting Organization in Japan :</b> Ministry of Land, Infrastructure and Transports
<b>Related Cooperation :</b>	
<p><b>1.1 Background of the Project</b></p> <p>“Urban Transportation Human Resources Development Center”, a project-type technical cooperation, was carried out at University of Brasilia (UnB) for four years from August 1998 to July 2002. The Pluriannual Investment Plan (1996-1999) elaborated by the Brazilian Government under President Cardoso cited modernization of the national transportation system as one of the prime action plans in transports sector. Major cities in Brazil have suffered from deterioration of traffic congestion and air pollution caused by an increase in vehicles on the roads. Establishment of an efficient urban transportation system was therefore required through improvement of public transportation institutions as a major priority.</p> <p>Since the National Urban Transportation Company (EBTU) was abolished in 1990 by the new government's decentralization policy, technological development of urban transportation came to depend entirely on the work conducted by Universities and Research Institutes. Given this circumstance, the Brazilian Government requested technical cooperation from the Japanese Government for the establishment of an Urban Transportation Human Resources Development Center at University of Brasilia, for the purpose of upgrading urban transportation personnel. The aim was to develop this center into a transportation research center to hold training courses, conduct research, and serve in an academic capacity.</p> <p>The project was begun in 1998 and completed in 2002. The Project's results were remarkable and widely recognized. CEFTRU was converted into one of Brazil's most important National Centers of Reference for Transportation training, studies and postgraduate specialization courses (more than 360 class hours).</p> <p>The goal of this study was to assess the performance of the Urban Transportation Human</p>	

Resources Development Center (CEFTRU) with regard to "impact" and "sustainability". This ex-post evaluation examined whether the effects of the Projects are sustained and have expanded even after its completion.

## 1.2 Project Overview

The Government of Japan provided technical cooperation for the improvement of the Training Center at the University of Brasilia to develop Brazilian Urban Transportation human resources; to conduct research and serve in an academic capacity.

### (1) Overall Goal

Capacity of personnel engaged in planning, management, operation and education of urban transports is improved through the training provided by CEFTRU.

### (2) Project Purpose

CEFTRU is well established so that training of personnel engaged in planning, management, operation and education related to urban transport may be undertaken effectively.

### (3) Outputs

- 1) Training programs which suit the demand of planning, management operation and education in the field of urban transport are prepared.
- 2) Capacity of instruction in the field of urban transport is obtained.
- 3) Facilities and equipment necessary for training are well prepared.
- 4) CEFTRU is properly managed in terms of organization, personnel and finance.

### (2) Inputs

#### Japanese side:

<b>Long-term Experts</b>	<b>4</b>	<b>Equipment</b>	<b>156 million</b>	<b>Yen</b>
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<b>Short-term Experts</b>	<b>22</b>			
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<b>Trainees received</b>	<b>12</b>			
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#### Brazilian Side:

<b>Counterpart</b>	<b>14</b>	<b>Equipment</b>	<b>NA</b>	
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<b>Land and Facilities Provided</b>				
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**Local Cost**

## 2. Evaluation Team

<b>Members of Evaluation Team</b>	JICA Brazil Office Commissioned to: Ms. Clarice Z. Knijnik – National Consultant	
<b>Period of Evaluation</b>	13 December, 2005 to 30 March, 2006	<b>Type of Evaluation :</b> Ex-post evaluation

## 3. Results of Evaluation

### 3.1 Summary of Evaluation Results

After completion of the Project, the Project Purpose has been fully achieved. CEFTRU has trained 4000 personnel from relevant organizations in the transports sector on 102 training courses, including postgraduate specialization courses. The trainees are engaged at public and private institutions from all 5 administrative regions of the country. CEFTRU has increased the number of sectors and beneficiaries of training courses with a high degree of satisfaction among beneficiaries of its activities in the fields of Training, Research and Consultancy.



## **(1) Impact**

### **(1) Achievement of the Overall Goal:**

From July 2002 to December 2005, the CEFTRU saw 115 students obtain postgraduate qualifications in 5 postgraduate specialization courses in Traffic Education, Road Surfacing, and Civil Aviation. In the same period, CEFTRU implemented different training courses for personnel from the Center–West, North and other regions of Brazil as follows: **2002** – 9 training courses in urban transportation with 335 trainees and 1 training course in civil aviation with 18 trainees; **2003** – 8 training courses in urban transportation with 292 trainees.; **2004** – 12 training courses in urban transportation with 709 trainees in 11 cities; and **2005** – 67 training courses in urban transportation with 1898 trainees implemented in 47 cities representative of Brazil’s regions with professionals coming from neighboring cities.

Results for the period from August 2002 to December 2005: 3967 students were trained in 102 courses, including the postgraduate specialization courses. This represents an annual average of 1000 students trained, an achievement three times greater than expected as expressed in the indicator for the Overall Goal of the PDM, which is of 300 students trained per year for 2002-2007.

These training activities also respond to current institutional changes in the national transportation scenario, which took place in Brazil from 1999 to 2003. The main changes were as follows: (i) the present **Brazilian Traffic Code** was adopted in 1999, substantially expanding the authority of municipal administrations with regard to traffic regulations; (ii) the **Ministry for Cities** was established in January 2003; urban transportation is subject to Brazil’s land use policy; and (iii) the **Ministry of Transports** announced important changes in June 2001. The following institutions were established: **DNIT** (National Department for Transportation Infrastructure), **ANTT** (National Terrestrial Transports Agency) and **CONIT** (National Board for Integration of Transportation Policies).

According to interviews with and questionnaires filled out by members of relevant institutions in the transports sector, the CEFTRU Project is a key component in the improvement of knowledge and skills among personnel working in the this sector in Brazil. Other training programs are developed by public institutions responding to the demand for training and qualifying human resources in this area, which is constantly increasing due to ongoing urbanization in Brazil. The Project is deemed highly effective 3 years of its completion, and remains adequate in this new institutional scenario.

Of those interviewed, 90% considered that up to 90% of the originally proposed results are continuously achieved by CEFTRU in the development of its training activities, including research and development of projects. All participants and public institutions (100%) interviewed confirmed the adequacy of the training contents and the urban transportation improvements obtained with the professionals trained.

The institutional partners highlighted the high degree of initiative, excellent technical capacity and quality of materials elaborated by CEFTRU. The relevance and the positive impact of the CEFTRU Project in providing training for professionals in this sector were underscored.

According to the replies provided, 100% of the alumni still working in the transports sector have been using the knowledge acquired; they consider this knowledge highly adequate; 95% have been handing on the training through distribution of technical materials; and 95% have been using it in their daily work. Among alumni, 85% would recommend that institution to which they belong send other students to the Center.

CEFTRU submitted evaluation questionnaires to all trainees upon completion of training courses during 2002-2005. Analysis of data available from final reports suggests that the degree of satisfaction with content and instructors is around 90% as stated by trainees and their Institutions.

Only 750 Brazilian municipalities were already integrated into the System in February 2006. To integrate the other 4500 municipalities in forthcoming years, the National Traffic Department (DENATRAN) has counted on support from CEFTRU, which ran these courses for about 1090 towns and cities to train 1759 trainees.

It is possible to state that in the research and project development fields CEFTRU has been achieving new technical improvements which have contributed to achievement of the Overall Goal

of the Project.

After completion of the Project, the Overall Goal has been fully achieved. Despite being initially designed to focus on the Center-West and North regions, CEFTRU has expanded its activities and its network, increasing the number of beneficiaries of the training and research section, obtaining institutional, technical and social recognition for its capacity in the area of urban transportation and other sub-sectors of transportation.

(2) Causality:

The Project has had a very positive impact on the training of human resources in the urban transports sector as well as in the fields of Research & Development of Transportation Projects. No negative impact has been caused by implementation of the Project.

The Overall goal could be an impact it self produced through implementation of the Project after its conclusion. The important assumptions for the development of the Project and for the achievement of the Project Purpose are suitable for conditions in Brazil. The main assumptions for attaining the Project's Purpose have been secured and have significantly contributed to achieving the Overall Goal. The professionals hired continued to be engaged at CEFTRU and University of Brasilia. Additionally, CEFTRU has maintained a financial balance and adequate administrative standards over the past 3 years as an institution managing own resources.

(3) Ripple effects:

Concerning ripple effects, the Project's effects on policy can be observed in many cases in which human resources from CEFTRU transfer acquired technology and knowledge by contributing to the process of drafting laws as well as serving on various Governmental Commissions and in Professional Associations in the Transports sector. By implementing the Project, CEFTRU has acquired great visibility and technical respect among relevant agencies in the Transports sector, especially among professionals trained at the Center. CEFTRU's teaching staff and consultants have been invited to sit on Technical Committees. They have also been consulted on technical matters such as legislations or norms governing transportation projects (e.g. the new law on urban mobility).

According to the interviews and questionnaires submitted to former trainees (1998-2002) who work in the transports sector, the evaluation team can vouch that the CEFTRU Project has had continuity, generating significant impacts through training courses and research that have contributed to the achievement the Overall Goal for the Project.

## **(2) Sustainability**

After the Project was completed, the Center divided a number of long-term courses into short-term courses and, in addition, introduced many new short-term courses. This change was made in order to meet the needs of the trainees and institutions in the transports sector. The Center's capacity to provide training was maintained and developed further after the Project's completion.

The evaluation team believes that technical sustainability of the Project has been ensured as the counterpart has improved technical knowledge introduced during implementation of the project and new short term courses.

## **(1) System and Political aspects:**

CEFTRU enjoys institutional support from University of Brasília and the main institutions active in the Transports Sector (e.g. Ministry for Cities, Ministry of Transports, ANTT) and is actively engaged in the network of higher education institutions dealing with Transportation. Current legislation on Transports is likely to remain unaltered in the medium and long terms since modifications were introduced as recently as the year 2000. The Center has adapted and responded appropriately to the new demands the sector has generated. Through interviews and meetings with governmental institutions demanding training activities from the Center, positive feedback was provided on the sustainability of CEFTRU. Institutions indicated that in the years ahead they will be given follow-up on current training; they will also continue to consider CEFTRU a privileged center for research and development of Projects. The Center continues to maintain public relations activities (home page, participation in seminars, broadening its knowledge and obtaining high national visibility). The Project continued to be an effective mechanism for the training of human resources in the urban transportation and other relevant sub-sectors.

**(2) Organizational and financial aspects:**

The organizational structure has remained stable. CEFTRU continues to be administratively attached to the Chancellor's Office at University of Brasilia. Its Consultancy Council and Technical Committees hold regular meetings. On the financial side, CEFTRU's budget has increased substantially owing to the Center's capacity to attract new training, research and project activities. This likewise confirms its medium-term sustainability. Income for 2005 was ten times that for 2003.

Despite the fact that the Center has a limited budget allocation from UnB to cover only teaching staff expenses, it has found a way to boost self-generated income by charging for providing training programs, carrying out commissioned research and consultancy work outside the University, as well as obtaining financial support from contracts the Ministry for Cities, ANTT and other important public agencies operating in the urban transportation sector. CEFTRU's financial sustainability is permanently dependent of its own initiative to secure sufficient income in order to sustain and develop the Project's impact and new initiatives the Center has implemented after the Project's completion. CEFTRU is among a group of organizations that gained sufficient self-generating income by meeting demands in the market despite insufficient or reduced allocations from the Government's budget. The Center has been working on strategic actions for its sustainability in the years ahead (2007-2012).

**(3) Technical aspects:**

The total number of short courses has increased since conclusion of the Project. In 2002, the figures were 10 courses with 353 participants; in 2003, 8 courses with 292 participants; in 2004, 12 courses with 709 participants and in 2005, 67 courses with 1898 participants. This in fact provides evidence of CEFTRU's quality and credibility, indicating a strong likelihood that the center will also achieve long-term sustainability.

Due to requests for new short-term courses, CEFTRU has maintained high productivity in the elaboration of new materials and contents for upcoming courses. The Center has been updating technical contents since the Japanese cooperation and associated technology transfer have been assured over the last few years.

The equipment donated during the cooperation is still in use and is well maintained by CEFTRU, as is the new equipment the Institution has since acquired. The Center still maintains the necessary installations and facilities for training; however, it seems to be lacking a number of necessary pieces of IT equipment. The Center is working on a new strategy to implement distance education courses in the near future for which it will not need to increase the present number of classrooms.

CEFTRU has been working to provide services in the field of transports, with the University's support. Therefore, it has based its strategic management on current demands from the sector. The Center is able to sustain its activities due to the diversification of areas of work. It also shows great agility and capacity to adapt its management since it maintains an appropriate structure, a great majority of the technical personnel being hired temporarily for the Project.

**(4) Social aspects, culture and environment:**

No conspicuous impeding factors exist, resulting from a lack of considerable social, cultural and environmental factors.

**3-2. Factors promoting the Project**

**(1) Planning Factor**

The initial content and method for implementing the Project are based on: improving technical capabilities of CEFTRU staff; and implementing different levels of liaison with institutions in the Transports sector. Both forms of action were relevant to development of issues at CEFTRU for Planning and Operational Management of Training courses. These initial conditions secured the achievement of impacts and sustainability through recognition among relevant institutions in the Sector of CEFTRU as a center of excellence for training and research.

**(2) Implementation Factors**

- 1-Effective organizational management of implementation of activities, small-scale inputs, small budget, highly qualified human resources, and adequate installations and facilities;
- 2- Policy support obtained from the Government and relevant institutions in the Transports sector;

- 3-Public and private organizations' demands for CEFTRU's activities in the Transports sector: training; research and project development;
- 4- Excellent collaboration and cooperative liaison with public and private organizations in the Sector.

### **3-3. Factors inhibiting the Project**

#### **(1) Planning Factors**

N/A

#### **(2) Implementation Factors**

Certain factors could be considered mildly inhibitive of expansion in the number of classrooms available for new courses. These include: delays in concluding construction of the second storey of the second CEFTRU building and the installation of laboratory equipment for road surfacing. However, CEFTRU has managed to get round these difficulties in implementing new courses by holding the courses at other venues in installations made available by the contracting institutions.

### **3-4. Conclusion**

After completion of the Project, CEFTRU expanded its activities and network, increasing the number of beneficiaries of the training and research section, obtaining institutional, technical and social recognition of its capacity in the area of urban transportation and other transports sub-sectors. The total number of short courses has increased since conclusion of the Project. In 2002, the number was 10 with 353 participants; in 2003, 8 courses with 292 participants; in 2004, 12 courses with 709 participants and in 2005, 67 courses with 1898 participants. This provides factual evidence of CEFTRU's quality and credibility, ensuring strong impact and sustainability for the Center and the Project's achievements for improvement of the knowledge and skills of technicians and managers engaged in the Transports sector in Brazil.

The CEFTRU Project has contributed to transportation in Brazil in terms of developing both human resources and research activities. The expected impacts for this period have been fully achieved, and CEFTRU has amply secured its sustainability after Project completion and for the years ahead.

### **3-5. Recommendations**

**(1)** CEFTRU must consider setting up exchange programs with other government institutions or the private sector. This would intensify its research, training and project development activities and strengthen its position in recommending transportation human resources policy. It would also increase CEFTRU's opportunities to be involved with practical transportation human resources training issues.

**(2)** It is also important to consider using CEFTRU for regular study grants for the Masters Degree Course, postgraduate specialization courses (more than 360 class hours) and short-term courses (80 class hours) from the Ministry for Cities, ANTT, DNIT, and DENATRAN. The Masters and Specialization courses are expensive and require professionals to absent themselves from their workplaces. Regular study grants from these institutions would provide these students with greater access to the Masters and Specialization courses. The needs of younger professionals who require better qualifications to enter today's labor market should also be taken into account since they generally do not have sufficient income to pay for their studies.

**(3)** CEFTRU must consider setting up third country training programs with other developing countries (public and private organizations) to maximize and share the experience of its training courses achieved after 04 years of JICA Technical Cooperation in this area.

**(4)** To enhance the effect of the Project, it could be recommended that every 2 years after conclusion of the Project experts be dispatched to update the needs and skills of Human Resources Centers like CEFTRU. Experience should be exchanged with Japanese university-based training centers similar to CEFTRU to facilitate understanding of the recipient's updated needs. The current collaboration with Nagoya Institute of Technology would be a good precedent. This could contribute to new areas of joint research for developing countries in the Japanese and Brazilian transport institutions.

**3-6. Lessons Learned**

(1) The most sustainable option was not to create an independent entity but rather to provide and develop knowledge and technology in an existing organization that promotes development in a particular area. Creating a new entity is not necessarily the best solution; a positive solution could be to develop and enhance the necessary capacity of an existing organization in accordance with its capacity and future improvements. It is more sustainable in the medium and long term to develop and enhance the capacity of an existing young entity than to create a new one from scratch.

**3-7. Follow-up Situation**

N/A



## 要約

1. 案件の概要	
国:ブラジル	案件名: ブラジル連邦共和国都市交通人材開発プロジェクト
分野: 都市交通	協力形態:プロジェクト方式 技術協力
所轄部署: 社会開発協力部	協力金額: <u>3億9,591万9,000円</u> (2001年度末実績)
協力期間	(R/D): 1998年3月27日から 2002年7月31日
	延長: 無し
	F/U: 無し
他の関連協力:	先方関係機関: 都市交通人材育成センター 日本側協力機関: 国土交通省

### 1-1 協力の背景と概要

フェルナンド・エンリケ・カルドーゾ前大統領政権が策定した多年度計画(1996-1999)には、工業化のための交通部門の活動計画と一環として全国交通システムの近代化が掲げられている。ブラジルの主な都市は、交通システムの悪化と車両数拡大に伴う大気汚染に悩んでいた。結果として、公共交通機関の改善を優先課題とした効率の高い交通システムの導入が期待された。1990年にEBTU(ブラジル都市交通公社)が当時の政府の分権化政策の結果閉鎖された後、都市交通部門の技術開発は大学及び研究所が実施する活動に完全に依存している。この状況の中、ブラジル政府は都市交通部門の研修を行なう場として、ブラジリア大学に都市交通人材育成センターを設立する協力を日本政府に要請した。都市交通人材育成センターは、プロジェクトタイプ技術協力として1998年8月から2002年7月まで実施され、ブラジリア大学が実施機関であった。実施成果は顕著であり、広く知られ、2002年中頃に日本の評価チームが残した最終報告書に記載されている通りである。現在、CEFTRU(都市交通人材育成センター)は交通部門における人材養成、調査、研修等においてはブラジルで最も重要なリファレンス・センターの一つとなっている。

### 1-2 協力内容

プロジェクトはブラジルの、特に中西部・北部地域の都市交通人材の能力強化を目的としてブラジリア大学に都市交通人材育成センターを設立することを目標とし、同センターが学究的能力を強化しつつ、人材養成講座や独自の研究を実施する交通研究センターとなるように支援することである。

#### (1) 上位目標

都市交通の計画・管理・運営・教育に携わる人材の能力が、CEFTRUにより実施される研修を通じて向上する。

## (2) プロジェクト目標

都市交通の計画・管理・運営・教育に携わる人材の研修が効果的に行えるように、CEFTRU が整備される。

## (3) アウトプット(成果)

1. 都市交通分野の計画・管理・運営・教育の需要を満たす研修のプログラムが整備される。
2. 都市交通分野の指導能力が十分に確保される。
3. 研修に必要な施設・機材が良く整っている。
4. 組織・人事・財務の面において CEFTRU が適切に運営される。

## (4) 投入(プロジェクト終了時)

### 日本側：

長期専門家：	4 名	機材：	1億5.624 万円
短期専門家：	22 名	ローカルコスト	3.243 万円
研修員受入：	12 名	他：	_____円

### 相手国側：

カウンターパート	14名
施設及び便宜供与：	
ローカルコスト：	

## 2. 評価調査団の概要

調査者	JICA ブラジル事務所在外コンサルタント Ms. Clarice Zilberman Knijnik	
評価期間	2005 年 12 月 13 日から 2006 年 3 月 30 日	評価種類:事後評価

## 3. 評価結果の概要

### 3-1 評価結果の要約.

プロジェクト終了後、上位目的は完全に達成された。CEFTRU は大学院コース(360 時間以上)を含め 102 回の研修を実施し、交通分野の機関に所属する 4000 人をトレーニングした。受講生は国内5つの地域の民間・行政機関に所属している。CEFTRU は交通部門の訓練及び受講生数を拡大し、訓練、研究及びコンサルティング部門で高い評価を得ている。

### (1) インパクト

#### 1) 上位目標の達成

2002 年 7 月から 2005 年 12 月までの間、CEFTRU は、交通教育、道路舗装及び民間航空(3 回実施)の専門コース5つにおいて 115 名の大学院生を送りだした。この内 90%は行政機関に所属しており、10%が民間部門従事者である。同期間、CEFTRU は中西部、北部、東北部、東



南部及び南部の技術者を対象として次の様々な研修を実施した：

- 2002年：都市交通、9コース、受講者 335名。民間航空、1コース、受講者 18名。
- 2003年：都市交通、8コース、受講者 292名。
- 2004年：能力強化 12コース、受講者 709名。
- 2005年：都市交通、67コース、受講者 1,898名の政府機関職員。

能力強化講習は国内の代表的な 47 市町村で実施され、各地域で近隣市の代表者が集まった。

結果として、2002年8月より2005年12月までの間、専門コースも含めた 102 コースで 3,967 名が受講した。これは年間平均 1,000 名の受講者に相当し、上位目標で設定されている 2002 年から 2007 年間の平均受講者数 300 名に対する 3 倍以上の成果である。

上記研修は 1999 年から 2003 年にブラジルで起こった交通分野の変化に対応したものであった。変化の中で特筆すべきものとして次があげられる：

(ア)現在の交通法は 1999 年に改正され、交通規制に関する市町村の権限が拡大された。

(イ)2003 年 1 月には新たに都市省が設けられ、都市開発政策に都市交通問題が組み込まれた。

(ウ)2001 年 6 月には交通省で改革が行なわれ次の機関が設置された：

- DNIT(全国交通インフラ部)
- ANTT(全国陸上交通機構)
- CONIT(全国交通政策統合審議会)

交通部門で活躍する諸機関代表者へのインタビューや質問状の回答によれば、本プロジェクトは、同分野の人材の知識・技術改善のための重要な機関となっている。国内の急激な都市化により、交通分野技術者養成の需要を満たすために他の政府機関でも様々な研修を実施している。プロジェクト終了後 3 年が経過し、国内の交通分野の新しいシナリオの元、交通分野での人材養成における CEFTRU の貢献は多大であると断言できる。

インタビューの結果、人材養成、コンサルティング、プロジェクト開発活動において、CEFTRU は当初予定の成果の 90%までを達成しつつあると 90%以上の人が答えている。

インタビューに応じた全て(100%)の受講者及び政府機関は研修内容の適切さ及び受講生の高い習得レベルを確認している。諸機関は CEFTRU のイニシアティブ、技術能力及び教材の高い質を讃えた。又、交通分野の技術者の能力強化における CEFTRU の高い重要度及びプラスのインパクトを強調した。

元受講生対象のアンケートの回答によれば、元受講生の 100%が交通分野に従事し続け、講習で得た知識を十分に活用し、講習内容が適切であると評価している。95%は教材配布を通じて講習で得た知識の普及に努め、85%は新たな研修生を CEFTRU に出すべきだと所属機関に勤めると回答している。

CEFTRU は 2002 年-2005 年に受講した全ての受講生を対象に質問状を通じて評価を実施した。評価分析の結果、受講生及び機関の 90%が高い満足度を占めていることが分かった。

2006 年 2 月の統計で、全国の市町村の内、全国交通システムに加入しているのはわずか 750 の市町村である。DENATRAN(国家交通部)は、残る 4,500 の市町村を同システムに組み込むことを目指しており、現在まで 1,090 の市町村の 1,759 名の技術者を対象に講習を行ってきた CEFTRU を重要なサポータとしてとらえている。

本プロジェクトは研究・開発の分野で重要な技術改善を行っており、上位目標の達成に貢献していると言える。

上位目標は、プロジェクト終了後、十分に達成されてきている。プロジェクト当初の計画ではブラジル北部及び東北部に講習を集中することが予定されていた。しかし、CEFTRU は活動及びネットワークを拡大し、講習及び研究の受益者数を増やしたことにより、都市交通及び交通分野の他の地域での能力に対する社会、技術、機関的な高い評価を得るにいたった。

## 2) インパクトの原因

プロジェクトは都市交通及び交通計画研究・開発部門の人材強化においてプラスのインパクトを生んだ。プロジェクト実施によるマイナスのインパクトは生じていない。上位目標に関する記述は、プロジェクト終了後に、プロジェクト実施を通じて生みだされた大きなインパクトのものと見て良い。プロジェクトの主な前提条件はブラジルの実情にあった。プロジェクトの主な前提条件は満たされ上位目標達成に大きく貢献した。技術者は CEFTRU 或いはブラジリア大学で活動を継続し、CEFTRU は過去 3 年間、自己資金調達能力のある機関として、運営・財政面での安定性を保ってきた。

## 3) 波及的効果

政策策定面でのプロジェクトのインパクトに関しては、CEFTRU 技術者は法律立案の議論、政府及び交通部門諸団体の委員会への参加等の多くの場合においてプロジェクトで得た知識・技術を移転してきたことが観察される。プロジェクト実施の結果、CEFTRU は交通部門の主な関係機関及び CEFTRU の元受講生の間で高い技術的評価を得た。CEFTRU の教官やコンサルタントは様々な技術委員会への招待を受けている他、交通部門の計画や法律に関する技術的な相談—例えば都市移動関連の新しい法律に関する相談—も受けている。現在交通部門で活躍している元受講生(1998 年-2002 年受講)を対象に行なったアンケートやインタビュー調査によれば、プロジェクト活動の継続により、訓練・研究分野で大きなインパクトが確認できる。同インパクトはプロジェクトの上位目標達成に貢献した。

### (2) 自立発展性

プロジェクト終了後、センターは長期研修の一部を短期研修とし、短期的な新しい講習を更に導入した。この様な変更は交通関係機関や受講生の要求に答える形で行なわれた。センターの講習実施能力は、プロジェクト終了後も維持・拡大されてきた。評価チームは、プロジェクトの技術的自立発展性は確保され、カウンターパートはプロジェクト実施中導入された技術知識を改善し、新たに短期的な研修が導入されたと断言できる。

#### 1) 制度及び政策面

CEFTRU はブラジリア大学及び交通部門の主な機関、例えば都市省、交通省、ANTT 等の後押しがあり、交通大学ネットワークに積極的に参加している。現在の交通部門法制は 2000 年に更新されたため、中期・長期的には現在の形のままで続く傾向にある。CEFTRU は交通部門の新たな需要に適応し、適切な形で応答している。

CEFTRU の研修の対象政府機関との協議及びインタビューを通じ、CEFTRU の自立発展性に関する良好な回答が寄せられている。諸機関は CEFTRU が現在実施している研修はここ数年間継続すべきだとしており、又 CEFTRU は交通部門の講習・研修を行なう上で卓越した条件を備えている機関であるとの認識を持っている。CEFTRU は、対外活動を継続し、ホームページの内容を常に更新し、セミナー参加等を行なうことにより、結果として知識の拡大と機関としての知名度を高めている。本プロジェクトは、都市交通及び交通部門の他のエリアの人材養成のための実質的な手段であり続けている。

#### 2) 組織及び財政面

CEFTRU の組織は近年安定している。CEFTRU は組織的にブラジリア大学総長室直轄であり

続けている。諮問委員会及びテーマ別委員会も定期的に会議を行なっている。財政面では、新規の研修、研究及びプロジェクトを誘致する能力のおかげで予算は大幅に増えており、CEFTRU の中期的な自立発展性を裏付けている。2005 年の収入は 2003 年と比べ 10 倍も増えている。

ブラジリア大学の予算における CEFTRU の取り分は小さく、教授の給料分にしか満たないが、CEFTRU は研修や外部機関に対するコンサルタント料金を取り、又都市省、ANTT や都市交通部門関連の主な政府機関から資金を調達して自己資金を稼いでいる。

プロジェクト終了後の CEFTRU の財政的持続性は、プロジェクト効果の維持及び開発をする能力及び新規事業を開拓する自己能力に掛かっている。

CEFTRU は不十分な政府予算の中で、運営に必要な資金を自分で稼ぐ組織である。

CEFTRU はこれからの数年間(2007 年-2012 年)の持続性を確保するために必要な戦略的活動を展開している。

### 3) 技術面

プロジェクト終了後、短期コースの数が増えている。2002 年には 10 コースで受講者 353 人だったのが、2004 年には 12 コースで受講者 709 人に増え、2005 年には 67 コースで受講者が 1,898 人である。この増加は CEFTRU の講習の質及び信頼度を示すと同時に、CEFTRU の長期的な持続性が達成可能であることを示している。

短期コースの需要が増えたことにより CEFTRU は新教材作成を急ピッチで進めている。プロジェクト終了後、CEFTRU は講習の技術的内容を継続的に更新しつつ知識の移転を続けている。プロジェクトで供与された機材は現在でも使用されており、メンテナンスも良好な形で行なわれている。CEFTRU による新規機材の購入も行なわれている。その他、講習実施に必要な施設やファシリティを維持しているが、IT 関連機材がまだ不足している。CEFTRU は近年中に遠距離講習実施に基いた新たな戦略開発を行う予定である。これが実現すれば現在の教室数を増やす必要が無い。

CEFTRU は大学の支援を受けて交通の研究開発及びコンサルタント業務を実施している。又、現在の交通部門の需要に基いた活動の戦略的管理を行なっている。交通部門の分野多様性のおかげで CEFTRU は自分の活動を維持している。この状況は、同時に CEFTRU の運営の適応能力及びネットワークの良さ並びに市場状況に合わせた適切な体制の維持能力を証明している。CEFTRU の職員の多くは、一定のプロジェクトや活動実施に必要なだけの短期雇用契約職員である。

### 4) 社会、文化及び環境面

特段配慮すべき社会、文化及び環境要因はないため顕著な制約要因は無い。

## 3-2 プロジェクトの促進要因

### (1) 企画関連要因

プロジェクトのオリジナルデザイン及び実施方法、CEFTRU のスタッフ強化及び交通部門の主な機関との連携に基いていた。この 2 つの柱は共に CEFTRU の研修企画・実施能力の開発のために重要であった。このような初期条件により、CEFTRU は研究・研修でのリファレンスセンターとして交通部門の他の主な機関から認められる等のインパクト及び自立発展性が得られたのである。

## (2) 実施プロセスに関わる要因:

- 1-小規模投資、小規模予算、質の高い人材、適切な施設・機材に基づいた研究・研修実施を目的とした CEFTRU の組織、財政、運営、技術面の運営管理。
- 2-交通部門関連政府機関及びブラジル大学の支援
- 3-政府機関及び民間団体からの CEFTRU への研修、研究及びプロジェクト開発の発注。
- 4-CEFTRU と交通部門の主な政府・民間機関との良好な協力関係。

### 3-3 プロジェクトの疎外要因.

#### (1) 企画関連要因

N/A 無し

#### (2) 実施プロセス関連要因

新規研修実施に必要な教室数の拡大を疎外した要因として第 2 棟の 2 階部分の建築の遅れや舗装機材の稼働の遅れがあったが、CEFTRU は新規研修の導入や他の機関の施設での講習の実施等でこの問題に対応した。

### 3-4 結論:

プロジェクト終了後、CEFTRU その活動と協力機関ネットワークを拡大することにより、研修・研究数を増やしてきた。又都市交通及び他の交通分野での能力に対する技術的、社会的或いは組織的に高い評価を獲得した。

プロジェクト終了後、短期研修の数は驚異的に伸びてきた。2002年には10コース、受講者353名だったのが、2003年には8コース、受講者292名、2004年には12コース、受講者709名に増え、2005年には67コース、受講者1,898名に増えている。この成長率は CEFTRU の講習の質及び信頼度が高いことを示し、ブラジル交通部門で活躍する管理者及び技術者の知識・技術改善のためのプロジェクト成果の維持と CEFTRU の持続性及びインパクトを確保するものである。

CEFTRU プロジェクトは、人材開発及び研究開発の面でブラジル交通部門に貢献している。プロジェクト終了後に期待されていたインパクト及び効果は予定期限内に完全に達成され、CEFTRU は協力終了後の自立発展性も十分達成している。

### 3-5 提言:

(1) CEFTRU は、他の政府及び民間機関との交流のための新規計画を考えるべきである。これにより研究・人材養成・計画開発活動を更に活発にし、交通部門に対し人材政策を提言する地位を強化できる。この様にして CEFTRU は人材養成関連テーマに更に深く関わっていくことが出来る。

(2) 都市省、ANTT、DNIT、DENATRAN からの奨学金を受けている修士課程学生、専門課程学生(360時間)や短期学生(80時間)を受け入れる機関として、CEFTRU が更に活用されることが重要である。修士課程及び専門課程はコストが高い上に学生が職場を離れる必要がある。このような重要な機関の既存の奨学金が利用できれば、修士課程及び大学院コースへのアクセスがより容易になる。若手技術者が労働市場に参入するためには更なる勉強が必要であるが、彼らには、そのための資金が無いことも考慮されるべきである。

(3) CEFTRU は4年間の JICA との技術協力の経験を最大限生かすために他の開発途上国(政

府機関及び民間機関)に対する第三国研修プログラムの設置を考えるべきである。

(4)プロジェクト終了後の効果拡大のために2年に1回専門家を派遣し、CEFTRUのような機関に市場が期待する知識の継続的な更新を図ることを提案する。CEFTRUと日本の類似機関の間で経験の交流を行ない、知識の更新の必要性に関する認識を深めたい。現行の名古屋工業大学との協力はひとつの好例である。この交流は、双方の機関による、他の開発途上国での交通部門での共同研究の新たな分野の開拓を可能にする。

### 3-6 教訓:

(1)交通部門の様な特殊な部門の開発を目的とした場合、既存組織において技術・知識を開発する方が新規の独立した組織を設立するより持続性の観点からは良い。新たな組織を設立するよりも既存の組織の能力を開発・強化した方が持続性が高いであろう。

### 3-7 フォローアップ状況

無し



# **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 after the conclusion of the Urban Transport Human Resources Development Project started on August 1, 1998 to July 31, 2002, with CEFTRU as the Brazilian implementing agency.

The evaluation should consider the relevance, efficacy, effectiveness, impact, and sustainability of the Project through the results achieved after the completion of the Project.

The goal of this study was to analyze the performance of **CEFTRU (the Urban Transportation Human Resources Development Center)** considering "impact" and "sustainability". This evaluation examined whether the effects of the projects are sustained and expanded even after termination of cooperation.

The main questions that oriented this study are:

- a. Has the impact of a project emerged after termination? Is sustainability secured?
- b. What are the major factors that promoted or impeded to the occurrence of effects?
- c. 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?

## **1.2 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 30th march 2006.

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

The Evaluation Study was based on the following methodological procedures:

**1** – Verification and comparative analysis of the current situation after the Project implementation and of the PDMe of 29th May 2002;

**2** – Consultations with Brazilian and Japanese interlocutors; monitoring reports of the Project's implementation by the CEFTRU; and evaluation of achievement of indicators of purpose; overall goal and super goal;

**3** – Proposition of Guidelines for the Evaluation Study:

(i) Five Criteria Evaluation Grid (effectiveness; impacts and sustainability);

(ii) Evaluation Table of Project middle and long term achievements based on the PDMe; and

(iii) Operational Plans for 2002 to 2005 agreed by JICA and CEFTRU, during final evaluation mission.

**4** – Discussion and consultation with the CEFTRU Coordination about Guidelines and Procedures.

**5** – Data collection, analysis and interpretation to obtain answers to the main questions on the Evaluation Grid (impacts, sustainability and effectiveness); and elaboration of a narrative summary of the Project's results after its completion based on the PDMe;

**6** – Presentation to CEFTRU and JICA for comments to the preliminary version of the Project Ex-Post Evaluation report.

**7** – Approval of final version of the Ex-Post Evaluation Report by ABC, CEFTRU and JICA.

**8** - Elaboration of the Minute of Meeting agreed at the Ex-Post Evaluation of the Project

This evaluation was mainly based on:

(i) Interviews with key people for the continuity of project's implantation at CEFTRU and with the UNB;

(ii) Technical documents, reports and materials consultation concerning courses evaluation in the period of 2002-2005;

(iii) Visits, interviews and questionnaires applied to Brazilian ex-participants and trainees from the period 1998-2002 and 2002-2005; and

(iv) Relevant Public corporations concerned in the continuity of the implementation of short term courses and specialization courses of the Project.



# Chapter 2 – Outline of Evaluated Project

## 2.1 Background of Project

### 2.1.1 – JICA’s Technical Cooperation

#### - 1998 to 2002

“Urban Transportation Human Resources Development Center”, a project-type technical cooperation, was carried out at the University of Brasília (UNB) for four years from August 1998 to July 2002. Multi-year Investment Plan (1996-1999) elaborated by Brazilian Government under the President Fernando Henrique Cardoso stated modernization of national transportation system as one of the action plans in transport sector industrialization.

Major cities in Brazil suffered from deterioration of traffic congestion and air pollution caused by increase of vehicles; therefore it was required to establish efficient urban transportation system by improvement of public transportation institutions as one of the priorities.

Since the National Public enterprise “Empresa Brasileira de Transportes Urbanos” (EBTU), was abolished in 1990 by new government decentralization policy, technology development of urban transportation has totally depended on the work conducted by Universities and Research Institutes.

CEFTRU was created by the Resolution #001/96 of the University Council of the UNB as a Center for human resources development in Transport and Environment; to implement training courses; and to execute consultant services in Transport sector at local, national and international levels.

Under this circumstance, the Brazilian government requested the technical cooperation for the Japanese Government on the establishment of an Urban Transportation Human Resources Development Center in the University of Brasília, for the purpose of nurturing the urban transportation personnel mainly in the Center –West and North regions; to develop this center into a transportation research center to hold training courses, conduct research, and serve in an academic capacity.

The Brazilian government requested the Technical Cooperation of the Government of Japan, aiming to establish a training center with facilities for government agencies’ officials and high-level research and education facilities. The Record of Discussions was signed on March 27, 1998 by the Japanese Implementation Study Team and the Brazilian authorities concerned.

The Project as a Japanese Technical Cooperation Program was started August 1, 1998 and finished July 31, 2002. The Project’s results were remarkable and widely recognized as indicated in the final evaluation report elaborated by a Japanese evaluation team in the middle of 2002. The

CEFTRU was converted in one of the most important Brazilian National Center of reference for Transportation training, studies and transport specialization courses.

Since the conclusion of the Project in 2002, CEFTRU is working closely with the Post Graduation in Transport of the UNB for studies and research. This cooperation produced a high level of technical improvement in CEFTRU. It placed the Center among the most relevant institutes for transportation-related studies and training in the Brazil.

## **2.1.2 – Results of the Final Evaluation Report (May, 2002).**

### **As such presented in the Final Evaluation Report:**

#### **2.1.2.1 – Relevance:**

The objective of the Project is considered to be relevant to current development policy of Brazil. Multi-Year Development Plan under the President Cardoso emphasized development national transport system as one of the critical policies for industrial modernization. The Project also generally met the needs of CEFTRU since many counterparts answered the content of the Project matched their needs.

#### **2.1.2.2 – Effectiveness:**

##### *(1) Achievement of the objective (Purpose)*

The objective of the Project was generally achieved as a result of the outputs and activities by the Project and other factors such as the quality of counterpart personnel and other governmental organizations' supports, although some equipment are not utilized sufficiently at the time of evaluation completion. CEFTRU is well established in terms of facilities, instructors, programs and organization as an important center to nurture the personnel and to conduct researches in the transport sector in Brazil, and its name is becoming more familiar to personnel engaged in this sector.

##### *(2) Results of activities:*

At this moment, total area of the CEFTRU 's building is 1,200 square meters, where are 2 class rooms (for 40 to 50 people), one auditory, 3 laboratories, 8 rooms for professors or researchers and administration rooms. CEFTRU has conducted total 23 training courses (approximately 2,000 participants); 15 seminars &lecturers (approximately 600 participants), 4 research projects since 1997 to 2001.

There is sufficient number of instructors who specialized in each area for the course. Syllabus of the course program is prepared based on the research on the needs for training and developed based

on the result of questionnaires to trainees. programs and teaching materials area already prepared and arranged to conduct the course regularly..... These facts prove CEFTRU has enough capacity to conduct their activities.

*(3) Utilization of donated equipment*

Personnel in charge of both areas of laboratories learned how to operate the equipments.

**2.1.2.3 - Efficiency:**

(a) inputs of the Japanese side:

... As discussed in “effectiveness”, there was a problem of low utilization of the equipment in road pavement and environmental issues related to transportation activities. However, there were caused by largely unexpected factors.

(b) inputs of the Brazilian side:

... However, due to the delay of the second building construction, the installation of fixed-type equipment in road pavement is not yet done. This was an obstacle in the progress of activity in road pavement area while some movable-type equipment for research site has been utilized. the reason for the delay was changes in the design of the building and lack of resources that had not been anticipated.

In this situation, CEFTRU has made great efforts to request for the University of Brasilia to construct the second building as soon as possible. As a result, construction of the second building will be completed by the end of 2002 although it was delayed further than the plan at the time of mid-term evaluation.

**2.1.2.4 - Impact.**

Some impacts by the Project are observed steadily. In interviews or questionnaires to some trainees, they evaluate their ability improved trough the course of CEFTRU. Some of them applied their knowledge learning from the course to their work.... In the Specialization courses (at minimum 360 hours of classes) 200 trainees completed their training. In the Extension courses (less than 360 hours of classes) 1800 trainees completed it. ...

The coverage of number of total municipalities in the Center-West region are still low, however, CEFTRU is currently increasing the number of the cities of origin of trainees in Brazil, by conducting the training courses on traffic accidents with support of Ministry of Transport. ...All evidences imply the impact of the Project has been getting more and more visible.

**2.1.2.5 - Sustainability.**

*(a) Institutional aspect:*

CEFTRU is appropriately organized in terms of facilities and number of personnel for the present....The Project has been conducting public-relations activities such as home page and video, and this will widen the contact with external organizations.

*(b) Financial aspect:*

CEFTRU has obtained the budget enough for their operation, and there is not critical problem currently. There are some provisions to make contracts for conducting the training courses supported by MT. UNB also supports CEFTRU financially.

*(c) Technical aspect:*

Most of counterpart personnel are doctorate level professors, and some of them have studied abroad. Therefore, they are highly qualified and have ability to manage the research and training courses basically. Considering the technology level of counterpart personnel, exchange of more practical knowledge based on the experience from other countries will strengthen their activities. There are some areas that might require more assistance from outside relatively than other areas: the environmental issues related to transportation activities, traffic safety, and infrastructure investment.

It is necessary to develop the skills of overall environmental management, such as planning and analytical method, mitigation of environmental damage and policy making. In the area of traffic safety, there is more demand to conduct the courses at present and in the near future.

*Conclusion:*

... The Project was conducted successfully in general...

## **2.2 – Summary of the Initial Plan**

As previously pointed out, the original PDMe used for the final evaluation of the Project on May 2002 will be considered as the PDMe for this ex-post evaluation study.

The Initial Cooperation Plan was presented as follows:

### **(1) Super Goal**

*Planning, management, operation and education in the field of urban transport are properly undertaken in Brazil.*

-To be achieved by the end of the period of 2007-2012.

### **(2) Overall Goal**

*Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU.*

- By the year 2007 (5 years after the end of the project period), considerable numbers of trainees

successfully complete training. (More than 300 trainees per year are anticipated to complete all courses including “Especialização”)

- Trainees obtain qualification/record on achievement of satisfactory level of learning by instructors at the time of training completion.

- Trainees apply knowledge/skills learned from the training to their work.

### **(3) Project Purpose:**

*CEFTRU is well established so that training of personnel engaged in planning, management, operation and education related to urban transport may be undertaken effectively.*

-By the end of the project period (year of 2002):

1. Facility, organization and programs of training courses are arranged;
2. Training courses for urban transport, including “Especialização” and other types, are settled to be executed regularly;
3. CEFTRU has good reputation as for its training courses that completed the course (or those who are in the middle of training).

### **(4)Outputs:**

- 1) Training programs which suite the demand of planning, management, operation and education in the field of urban transport prepared;
- 2) Capability of instruction in the field of urban transport is obtained.
- 3) Facilities and equipment necessary for training are well prepared.
- 4) CEFTRU is properly managed in terms of organization, personnel and finance.

### **(5) Inputs:**

#### ***Japanese side:***

	Project Period
Long-Term Experts	4
Short-Term Experts	22
Trainees Received	12
Equipment	156 Million yen
Local Costs	

#### ***Brazilian Side:***

	Project Period
Counterparts	14
Land and Facilities	Provided
Local Cost	67 Million yen
Others	Other Equipment

The initial strategies plan for institutional strengthen aimed to achieve the Overall Goal and Purpose of the Project through the implementation of the four outputs of the initial Plan: human resources, facilities and equipment, management system and training courses executed

As stated at the final evaluation report of the Project– on the evaluation of products, activities and inputs– the evaluation team indicated that the Project Purpose was sufficiently achieved and it was considered effective for that phase (1998-2002). The Project achieved the majority of expected outcomes and activities by the improvement introduced to trainee’s knowledge at the local and federal institutions related to Urban Transport.

The achievement of Purpose and Products indicated by the PDM was supported by JICA through: donation of equipment, training and participation of 4 long term and 22 short term experts who worked directly with CEFTRU.

## **Chapter 3 - Achievements of Project**

### **3.1 Implementation Framework of Project continuity (2002-2005).**

The Project was implemented within CEFTRU mainly by the Training Coordination and the Research Coordination. The actual administrative and institutional structure is similar as it was in the implementation of the Project.

A structure with its own regulation was set up for the Project's implementation putting CEFTRU in an administrative and institutional subordination to the Cabinet of the Rector of UNB. The Center is qualified as an administrative autonomous organization in accordance with the Brazilian legislation for Public Administration.

For the management of CEFTRU there are 3 different Councils: Consultative Council, Academic Council and a Deliberative Council. They are integrated by academic members of CEFTRU and invited professionals. These coordination instances had the attributions of: planning, monitoring and management of the Center. These Councils has meetings regularly at least twice a year.

On the sphere of the Consultative and the Academic Council there are representatives of the CEFTRU Head Office (Director and Representative Director) and of the Professors of Master Degree Course in Transport of UNB. This CEFTRU management team held meetings whenever required by the Director of the Center, at least once a month.

There was a low shortage in the number of permanent Professors of the Brazilian counterpart for the development of CEFTRU's specialization when it is compared the number of the 14 permanent professors allocated for the Project implementation in 2002 and the actual 08 permanent professors allocated for the Master in Transport at UNB to work with CEFTRU to execute Specialization Courses in Urban Transport. This kind of initiative to increase the number of Professors of UNB is out of control of the competencies of the University.

This low shortage of permanent staff at CEFTRU for the execution of the training, research and development projects was solved with the participation of external consultants, professors and teachers with significant experience and knowledge in the area of Transport, who promoted short-term training courses, researches, workshops and development of projects.

It was necessary to CEFTRU to count on independent Consultants and Teachers considering the high number of training courses executed (100) by the Center from 2002-2005

The attached table in the Annexes summarizes the achievements in terms of outputs and activities of the Project after its completion.

The evaluation team confirms that the generated efforts and short-term benefits initiated by the Project in 1998-2002 were kept with outcomes and impacts totally achieved for the period 2002-2005.

## **Chapter 4 –Evaluation Results**

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

As a means to obtain evaluation of results (products, outcomes and impacts) achieved by the Project after its completion, an Ex-Post Evaluation Scheme was used for guidance, comprising questions based on 5 criteria, **with special emphasis on Impact and Sustainability.**

#### **4.1.1 - Relevance:**

The Project was designed and appropriately implemented meeting the needs of technical and institutional strengthening of the CEFTRU. The needs of the four Components were previously identified as they were implemented by the Project. After the Project completion CEFTRU reinforced the operational training action on other sub sectors of Transport such as: Civil Aviation, Private-Public Association to promote infrastructure investments; Environmental management; Road Pavement and Urban Development

The previous diagnosis executed in 2000 concerning the demands for training in the transport sector in some regions of Brazil is still used by CEFTRU, confirming the adequacy and pertinence of the strategy to develop activities initially the Center-West Region, with the North and North East subsequently.

Taking in consideration institutional changes introduced in the Urban Transport sub sector with the legal competencies transferred in this area from Ministry of Transport to the Ministry of Cities since 2003, CEFTRU is making continuously great efforts in its implementation process.

CEFTRU is working hard to summarize the beneficiaries' needs for a wide sector based on frequent workshops, evaluation of training courses and contracting high qualified personnel in this area, assuring the conditions to be part of the selected group of Centers and Consultants requested by this Ministry to do trainings for the new Brazilian professionals related to Urban Mobility.

For the majority of stakeholders interviewed during this ex-post evaluation process, the relevance and suitability of the Project 2002-2005 to the beneficiaries needs were confirmed. Many of them confirmed their interests in counting on CEFTRU to the continuity of the trainings programs executed in the last 3 years and suggested new demanded activities in the Transport Sector in training; research and project development.

An effective management process was implemented by Project team in CEFTRU and until 2005 it is possible to verify that the Center is well managed. It was remarked the operational agility obtained with this kind of small administrative and financial structure with a decision level very close of employees, which operates in coordination with Consultative Council of CEFTRU.



The Project's is still relevant and confirmed through: (i) interviews carried out with several public organizations, as well as with key persons at CEFTRU and (ii) attendance in the meeting for evaluation of ex-trainees held in *Goiânia* with 20 participants; and (iii) technical visits and interviews carried out in the UNB and Master Degree Course in Transport.

The Project is still in conformity with the Brazilian Policy on Transport and Urban Development Sectors, which could be confirmed by not only the strategies and projects of the Ministry of the Cities but also by those carried out by the ANTT; DNIT and other training Centers in Transport.

It was pointed out during the interviews that in the beginning of this new presidential administration, new authorities had priorities for the sector other than the training in Transport Sector. This situation changed in 2004 and 2005 when CEFTRU received a new political support for the training actions of the Project from DENATRAN and Ministry of Cities.

It is also well related to the cooperation policy of the Japanese Government in the field of Transport. Transport training activities continues to be one of the priorities of JICA's cooperation strategy with Brazil. It is also one of the main priorities for ODA's cooperation with Brazil, as is the training activities for ABC Technical Cooperation Program and the Ministry of External Relations of Brazil

Due to the characteristics and relevance of the Project, interviews revealed that other national sources have been supporting activities in the Sector, maximizing actions carried out by this Project. We could mention, for instance, ANTT, DNIT, DENATRAN, Local DETRANS, State Transport Agencies, Ministry of Justice, Ministry of Cities, National and State Public Accounting Institutions.

The Japanese cooperation in the training transport field is still technically very well accepted by CEFTRU and other relevant institutions in this sector, as verified for the period of 2002 through 2005 during this evaluation. This is due to the Japanese successful experiences in this issue, as indicated in different interviews with other relevant organizations, such as DENATRAN, ANTT, State and Local Traffic Departments, ANPET, and UNB.

The Purpose of the Project presents a consistency with the Overall Goal of the Project and it was reinforced by SNV regulations and by the outputs achieved by the Project after its completion.

Improvements had been supported on human resources development in transport by activities implemented from 2002-2005 on: new practices related to management in Airports; GIS and data information in transport; Private Public Association for infrastructure investments and Environmental management for transport.

The Project is considered as *highly relevant* for the period of 2002-2005 as it had been stated before.

#### **4.1.2 - Effectiveness.**

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

*CEFTRU is well established so that training of personnel engaged in planning; management, operation and education related to urban transport may be undertaken effectively:*

##### Indicators of PDMe:

By the end of the Project period (year 2002 -2005):

- 1- Facility, organization and programs of training courses are arranged;
- 2- Training courses for urban transport, including “Specialization” and the other types, are settled to be executed regularly;
- 3- CEFTRU has good reputation as for its training courses from trainees who completed the course (or those who are in the middle of training)

As stated in 2002 at the Final Evaluation Report of the Project– on the evaluation of products, activities and inputs– the evaluation team indicated that the Project Purpose was sufficiently achieved and it was considered effective for that phase (1998-2002). The Project achieved the majority of expected outcomes and activities by the improvement introduced to trainee’s knowledge at the local and federal institutions related to Urban Transport.

On those instances, the technical and institutional improvement of other public organizations in the referred sector was achieved, by indirect contribution of the trainees. The evaluation of outcome indicators, in quantitative and qualitative terms, was attached at the Final Evaluation Report.

The generated efforts 1998-2002 indicated that it was possible that flows of short-term benefits initiated by the Project will be kept, and that future outcomes and impacts will be achieved by CEFTRU in this area of Training.

A high effectiveness could be widened in 1998-2002 period if a schedule were implemented, as originally agreed concerning the implementation of facilities and equipments for training courses and researches in road pavement and the environmental issues related to transportation activities.

As indicated in the final evaluation report: “In terms of facility utilization, due to delay of construction of the second building of CEFTRU, some of equipment related to road pavement that are supposed to be installed in this building was not utilized. Currently, the second building will be completed by the end of the year 2002, and CEFTRU has plan of utilizing the equipment in the area of road pavement. ....Equipment in environmental issues related to transportation activities is not fully utilized effectively because some equipment are not acknowledged by the Brazilian authority “INMETRO” and it is planned that equipment will be examined during this year”.

These observations provided for two recommendations in order to face these difficulties: “It is important to utilize equipment more especially in road pavement and environmental issues related to transportation activities in order to enhance the level of CEFTRU’s activities. As for the equipment for the road pavement, it is requires to install and operate fixed type equipment after the completion of second building of CEFTRU as soon as possible. With respect to some equipment related to environmental issues with transportation activities, it is necessary to obtain acknowledgement from Brazilian authority in order to utilize them effectively.”

During visits to CEFTRU, the fixed equipments of road pavement are still in the installation phase, mainly due to the delay in the construction of the second building and budgetary restrictions of CEFTRU for installing these equipments. Only the first floor was concluded and is being used for the training courses. The second floor has only its bottom paving structure and the roofing ready as well as the external walls. It is likely that by the end of the first semester of 2006 the referred equipments should be already operating.

The laboratories are in their final installation phase due to the recent conclusion of the fixed tables for the placement of measurement equipments and tests of materials extracted from the road top layers.

On what concerns the equipments related to environmental issues in the transport sector, these are in use for the measurement of sound pollution and gas emissions in two fixed locations in the city of Brasilia. Technical reports are issued by CEFTRU and used by DF Government in its action towards improve of life quality of its citizens and better conditions of public transport services in the city. Student groups have been trained for the use of these equipments.

During an interview with the managers of CEFTRU, it was clarified that at this moment there is no request for a certificate of quality of the equipments installed since it is not planned the official issuing of technical and legal reports about environmental pollution in the field of urban and cargo transport by the Institute. The main reason is that Universities do not have competencies to issue this kind of legal technical reports.

It should be highlighted that the DNIT already approved new legislations on environmental pollution control, as well as has already elaborated legislations and other administrative regulations on this issue. Besides DNIT counts with an Institute of Road Research, which carries out training and an important researches, located in Rio de Janeiro. This Institute offers services to public agencies and private companies when they need technical opinions on road pavement and environmental protection.

The evaluation team confirms that the generated efforts and short-term benefits initiated by the Project in 1998-2002 were kept with outcomes and impacts totally achieved for the period 2002-2005.

### 4.1.3. Efficiency.

The four Products continuously carried out by CEFTRU after the completion Project were technically adequate, implemented within the deadline and costs were reasonable for the achievement of the Project's Purpose and the Overall Goal.

Product 2 had its scope expanded in 2004 and 2005, focusing more the other transport's modalities of training, envisaging time and resources available in the Public institutions who demanded for human resources development of officers working at their institutions especially at local level.

The continuity of the efficiency of the Project's implementation after its completion is considered satisfactory, regarding the significant efforts made by CEFTRU team to surpass the Brazilian side situation on shortage of budget allocation in order to obtain the continuity of achievements of the Project.

Implementation delays on planned schedule of activities project such as the second building construction for 2002 were surpassed by intensive degree of execution in training courses at 2004 and 2005.

In the record of meeting during the approval of Final Evaluation Report of the Project (May, 2002), CEFTRU required three actions from Japanese side to sustain and to improve the efficiency of the activities of the Center in the medium and long term:

*a) Implementation of training courses in Brazil:* "while CEFTRU has become more familiar among the personnel engaged in the transport sector, there is growing demand for the implementation on training. Therefore, it is necessary to provide technical and financial assistance in order to enhance the quality of training".

After three years of the completion's Project, it could be said that CEFTRU is keeping updated training courses implemented during the Technical Cooperation and implemented new areas of training courses attending new market demands for human resources development in Transport Sector.

The financial situation is balanced but there is a shortage of resources for new investments in the facilities and equipments installed in the Center. UNB is not given support to CEFTRU in this strategic area for medium and long term development of the Center.

*b) Dispatch of short term experts:* "... in current situation, demand for experts in traffic safety is increasing in the courses held in CEFTRU and technical transfer of environmental issues related to transportation was not sufficient to assure the development of their activities. ...Dispatch of two experts in the field of traffic accident except for education area was already requested by the government of Brazil (April 2001) and sent to the Government of Japan..."

After three years of the completion's Project, CEFTRU found out the support from Brazilian experts in the areas requested previously to Japanese Government. The Center implemented new short – term courses and specialization courses in these areas of knowledge.

c) The third country training program: “CEFTRU is considering plans to conduct the TCTP in near future, after they conduct certain number of training within the Country and then CEFTRU has enough budgets for it implementation.”

After three years of the completion's Project, it is evaluated that CEFTRU acquired sufficient and high qualified experience in implementation of training courses in Transport and it is able to participates in a TCTP with PALOPS and with Latin-American and the Caribbean countries.

However, the Center is not in financial conditions to support institution fees, travel and accommodation expenses for foreign students in Brasília or even more the expenses to prepare new technical documents in Spanish for the short-term training courses. It seems adequate and opportune that CEFTRU could act like a focal point to Japanese TCTP with a financial support from this type of Technical Cooperation.

On what concerns the overseas training of CEFTRU technical personnel originally trained in Japan, after three years, 70% are still working with CEFTRU. New trainees of CEFTRU have been sent to Japan to be trained or in direct contact with Japanese expertise in Transport area or in environmental issues related to transport. In road pavement area, there is a CEFTRU professional that participate annually in training courses in Japan.

Average costs for the execution of activities and acquisition of materials/equipments for the Project are still in conformity with the market on Consultancy in Brazil, especially on what regards contract with teams or Brazilian professional for the elaboration of: studies, researches, seminars, courses and trainings. The same situation could be applicable to acquisition of equipments and materials necessities to Project's continuity of execution activities.

The revenues of CEFTRU passed through **FUB** are presented as following:

2003 – R\$ 123,000

2004 – R\$ 5,350,000

2005 – R\$ 6,000,000

The revenues of 2004 overpass in 43 times the 2003 revenue amount reflecting an impressive recuperation in the level of execution that was very low in 2003. The revenue of 2005 overpasses in 10% the revenue of 2004. However the number of 67 training courses executed in 2005 overpass in 5 times the 12 courses executed in 2003.

It is important to remark that in 2005 CEFTRU executed training courses in 47 cities or capitals of states in Brazil working with at least 1000 municipalities from north, north-east, center –

west and southern regions of the country. In 2004 the Center executed decentralized training courses in 11 important cities or capital of states of Brazil working with at least 140 municipalities.

In the Final Evaluation Project Report (2002) the evaluation team considered that CEFTRU would need in near future increase the number of cities of center-west and north region of Brazil. After 3 years of Project's completion it could be observed that CEFTRU increase its participation in a significant number of cities of these regions and expanded its participation in other Brazilian regions attending new specific demands for human resources development in the Transport sector.

The efficiency of the Projects after its completion is considered medium high satisfactory, regarding the significant efforts made by CEFTRU to improve its participation and visibility in the Training Center in the Brazilian scenario.

The efficiency could be evaluated likely highly if CEFTRU had constructed the second building by the end of 2002 as planned before with its own operation in 2003, improving their capabilities in terms of: number of class rooms, laboratories and new courses or researches in environmental issues and road pavement. The first floor of the second building was in operational use in the last trimester of 2005.

#### **4.1.4 Impact**

##### **Overall Goal:**

*Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU.*

- PDMe Indicators:

By the end of 2007 (five years after the end of Project period):

1. Considerable number of trainees successfully complete training (More than 300 trainees per year are anticipated to complete all courses including **Specialization**);
2. Trainees obtain qualification/record on achievement of satisfactory level of learning by instructors at the time of training completion.
3. Trainees apply knowledge/skills learned from the training to their work.

The Projects 1998-2002 outputs and short-term outcomes achievements contributed to a certain extent to obtain the Overall Goal in the last three years. The Project implemented initial conditions and actions in the Center to be an important actor in the Human Resources in Transport Training area, mainly through improving skills of public officers of relevant organizations in this matter and developing researches and new master plans in Transport.

From August 2002 to December 2005, the CEFTRU has seen 115 students post graduated from 5 “Especialização” courses in Transit Education, Road Pavement and Civil Aviation. Of these post graduated, 90% are employed in government organizations, and 10% in private-sector companies.

In the same period, the CEFTRU implemented different training courses for personnel from the Center –West; North, North-East, South-East and South regions of Brazil as follow information:

**2002 – 9 training courses** in urban transportation with **335 trainees** and 1 training course in civil aviation with 18 trainees. The training courses were implemented in Brasília counting on the participation of trainees from different towns of Brazil.

**2003 – 8 training courses** in urban transportation with **292 trainees** from government institutions. The training courses were implemented in Brasília counting on the participation of trainees from different towns of Brazil.

**2004 – 12 training courses** in urban transportation with **709 trainees** from government institutions. The training courses were implemented in the following 11 representatives cities of Brazilian regions: 2 in Brasília; 1 in Salvador; 1 in Campo Grande; 1 in Cuiabá; 01 in Manaus; 01 in Macapá, 01 in Florianópolis; 01 in Vitoria; 01 in Volta Redonda; 01 in Belém and 01 in Piracicaba.

**2005 – 67 training courses** in urban transportation with **1898 trainees** from government institutions. The training courses were implemented in 47 representatives’ cities of Brazilian regions. Each course held in one of the 47 cities has also trained professionals coming from neighboring cities of the region or the state. For instance, the Course on Integration of Municipalities to the National System on Traffic was held in Aracaju, but it counted with the attendance of professionals from 06 municipalities of 02 States located nearby.

As results in the period of August 2002 until December 2005, 3967 students were trained through 102 courses, including the Specialization course. This in fact represents an annual average of 1000 students trained, an achievement three times more than expected as stated at our indicator for the Overall Objective of the PDM, which is of 300 students trained per year for 2007.

It is important to highlight that the strategy adopted by CEFTRU as a means to broadening training capacity is based on the move of its teams to the cities or capital cities of Brazilian states in order to allow the participation of at least 1 participant of a city from a given State. With this strategy it has been possible to achieve a greater impact of the trainings carried out, allowing ample multiplication of the capacity-building activities of staff part of municipal and state level agencies related to the management and execution of urban transport at local, regional or state levels.

### **1.1 Changes in the institutional scenario of Urban Transport and the role of CEFTRU/UNB:**

These trainings also respond to current institutional changes in the national transport scenario, which took place in Brazil from 1999 until 2003. Below we mention the main changes:

#### **- National System on Traffic:**

The Brazilian Traffic Code, adopted in 1999, establishes clearly a division of responsibilities and a solid partnership among federal, state and municipal agencies. The municipalities in particular have their authority substantially widened by this legislation on what concerns traffic regulations.

Therefore, it is currently under the responsibility of the executive local agencies the exercise of certain authority and their integration to the National System on Traffic. It is now under the municipal authority: planning, the project, operation and control, not only of the urban area, but also of municipal roads. The municipality is now entitled to develop tasks of traffic signals, control, employment of penalties and traffic education.

Out of the 5560 Brazilian municipalities, around 720 are already integrated to the SNT until 2006. Those municipalities, which have not complied with the requirements to integrate the new System, have been trained by the DENATRAN, with support from CEFTRU, in order to be able to realize their functions related to transport and traffic at the municipal level. Furthermore, CEFTRU has been promoting training of the new staff of the municipalities already integrated to the System.

#### **- Ministry of Cities:**

The Ministry of Cities was established on 01 January 2003, through the Provisory Measure (*Medida Provisória*) no. 103, and later converted to the Law no. 10.683, 28/05/2003. The establishment of the Ministry of Cities was an innovative fact in the Brazilian urban policy; since it has surpassed the previous policies per sector, such as housing, sanitation and transport (mobility) as well as traffic in order to integrate them in the policy of land use and occupation.

Another crucial aspect of its establishment is the definition of a national policy on urban development in balance with the other federative members (municipality and state), aiming at the coordination of investments in the cities for the decrease of social inequalities and aiming at the environmental sustainability.

In 2000, more than 80% of the Brazilian population would live in cities, according to IBGE. With the establishment of the Ministry of Cities, the Federal Government starts a joint effort related to the urban policies and the policies per sector such as on housing, sanitation and transport. With this initiative, more emphasis is given to guidelines on decentralization and strengthening of the municipalities, as defined by the 1988 Federal Constitution.



In this context, DENATRAN turns to be part of the above-mentioned Ministry, as well as it is established the **National Secretariat on Transport and Urban Mobility** (*Secretaria Nacional de Transporte e Mobilidade Urbana*), with the task to elaborate policies and to execute programs on urban transport (urban mobility).

CEFTRU has been developing its activities also with the support of the National Secretariat on Transport and Urban Mobility/Ministry of the Cities in order to promote capacity-building of professionals from several public agencies in the main urban areas through two courses on Integrated Management of Urban Mobility. This Ministry planned to hold a long term training program through 04 phases, from 2005 until 2010. These courses are essential tools to the implementation of the National Policy on Urban Mobility.

#### - **Ministry of Transport:**

Through Law no. 10.233, 05 June 2001, it was established the **DNIT** (National Department on Transport Infra-structure) and the **CONIT** (National Board on Integration of Transport Policies).

The **DNIT** is the main executive body of the Ministry of Transport. It was established in February 2002 with the aim to develop functions related to construction, maintenance, and operation of the infrastructure of segments of the Federal System on Long-distance Traffic, under the administration of the Federal government at the highways, railways and waterways. The federal highways remain under the administration of DNIT, with exception of 4% of its network, which is under concession. Therefore, most of the DNIT investments are towards the highways, which count with 56 thousand kilometers throughout the country.

The **ANTT** is the National Agency on Regulation of Terrestrial Transport (*Agência Nacional de Regulação dos Transportes Terrestres*) with the authorities to: implement policies formulated by the National Board on Policy Integration and by the Ministry of Transport; as well as regulate and supervise, according o its own tasks and responsibility, activities related to services and transport infra-structure, exercised by third parties.

The **CONIT** was established to realize functions as the National Board on Transport Policies Integration, connected to the Republic Presidency, with the task to submit to the President of the Republic proposals of national policies of integration among the several means of transport of people and goods.

CEFTRU has been supporting not only the training of professionals but also the conduction of research and consultancy for the functioning of ANTT.

According to the interviews and questionnaires presented to members of institutions that work with the Transport sector, not only in the urban areas, the evaluation team is able to ensure the relevant

work developed by CEFTRU and the impacts obtained by the Project realization, given this new institutional scenario in Transport.

## **1.2 – Interviews and meetings realized to Evaluation Study.**

### **1.2.1 – Transport related Institutions.**

According to the interviews and questionnaires submitted to members of the institutions “clients” that work on the transport sector, not only urban, we can ensure that it was given continuity to the work of CEFTRU, aiming at contributing for the Overall Goal of the Project (*Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU*) following 03 years of its conclusion, and in this new institutional scenario.

On what concerns the continuous achievement of the Overall Objective of the Project, 90% of those interviewed considered that up to 90% of the originally proposed results are continuously achieved by CEFTRU in the development of its training activities, including also activities related to research and development of projects.

In relation to the equipments and adequate installations for the trainings, 70% of those interviewed considered that the current conditions allow a great degree of satisfaction for the realization of the courses at the CEFTRU headquarters. References were made to the need of improving the classroom furniture and the increase of the number of classrooms.

On what concerns the management of human resources, administrative and financial to achieve the long-term objectives, 100% considered it adequate, and 30% also suggested the existence of better-computerized equipments (models and capacity), as well as mentioned the need to expand CEFTRU’s permanent team for the realization of consultancies and courses.

In relation to the adequacy of training programs offered by CEFTRU in keeping responding to the participants and public institutions expectations, 100% of those interviewed stated the adequacy of the training contents to the requirements of the urban transport sector. A member of ANTT stated that the need of the institution for professionals qualified on terrestrial transports is higher than what the current professional market is able to provide. This situation would bring in a long-term a potential for the increase of the capacity already functioning at CEFTRU for the trainings and development of projects in this sector.

On what concerns the improvement of capacity in the fields of training, research and development of projects by CEFTRU, 100% of those interviewed considered positive the improvements in relation to 2002.

Members of ANTT, Ministry of Cities and DENATRAN appointed the new requests of their institutions and the realization of new Agreements were crucial elements for these improvements. The institutional partners highlighted the high degree of initiative, great technical capacity and quality of materials elaborated by CEFTRU.

In relation to the impacts of the training of personnel from the urban transport sector, DENATRAN/CONIT, Ministry of Cities and UNB highlighted the relevance of CEFTRU in providing capacity to the professionals in this sector. The same was seen in the field of capacity of higher management staff, specifically in the field of airport management through the qualification in planning, management and airport operation, which counted with approximately 100 new professionals during the last three years.

During the interviews, it was highlighted the positive impact that these trainings carried out by CEFTRU have provided to the municipal level, due to the process of decentralization of authority in the urban transport implemented since 2003.

During an interview with DETRAN/DF, as a public institution of local and state levels, as well as part of the CONIT, it was mentioned the relevance of the training realized by CEFTRU for the qualification of mid-level professionals at DETRAN and for the monitors of traffic schools around the DF, as well as new trainings that will be held for higher level professionals at DETRAN in 2006/2007.

Through an interview with the Rector of UNB, it was stated that the work of CEFTRU allows a greater technical visibility of the University in the field of Transport, as complementary to the Masters Degree and the Doctorate Degree Courses, offered by the Department of Civil Engineering of this University.

Another aspect mentioned by interviewing the professors of this Masters Degree is the collaboration in research, project development and final papers (dissertations) between these two units of the University, besides the collaboration of the professors to the CEFTRU.

During an interview with a member of the ANPET – National Association on Transport Research and Teaching, a non-governmental organization which is composed by Brazilian entities that develop permanently teaching and/or research in the field of Transport, it was highlighted the relevance of CEFTRU which is among the Brazilian centers of teaching and research on Transport considered as national reference in quality in the sector; as well as the quality of its work presented annually at the National Conferences of this Association.

Concerning ripple effects the Project's effects on policy are observed in many cases in which human resources of CEFTRU and the Master Degree Course in Transport/UNB transfer acquired technology and knowledge to the Government institutions by contributing in the process of drafting laws as well as attending various Governmental Commissions and Sector Associations. As is the case

of the participation of representatives of CEFTRU in the new drafted urban mobility national law, in the master plan of Manaus and technical commissions of ANPET.

Interviews with involved parties pointed out that the implementation of Project after its completion had achieved the following positive ripple effects since 2002:

- (i) Collaboration of related relevant institutions related to Transport Sector reinforced by CEFTRU training courses at local and state level ; researches and project development ;
- (ii) Environmental and Transport Education and social awareness in the security traffic Courses at local level expanded by the permanent collaboration of state and local officers trained with NGOS, community associations, and transportation unions;
- (iii) Dissemination of knowledge; use of data and information on transport used by trainees at their works and extended to other officers in the same or other relevant institutions mainly in the local level;
- (iv) Effectiveness of technical and financial supportive training action from National Program for Transit by DENATRAN and their local Offices in different states of Brazil (MC); Urban Mobility from SNTMU (MC); DNIT(MT); and
- (v) Improving capacity and technology transfer on other Transport Training Centers as such CEFET, SEST/SENAT; and other relevant institutions related to Transport sector such as ANTT, TCU, TCE.

Another example, in the CEFTRU's Project, which Overall Goal was to develop human resources in the urban transport sector and improve research activities, people trained in the Center were appointed to important posts at governmental institutions. As a result, the knowledge and skills acquired from the training were applied in formulating and improving transportation policies at national and local level.

In the evaluation of indirect and direct effects on Society, the Project promoted indirect effects in urban transport services, improving satisfaction level of local communities regarding better conditions of operation and management of urban transportation.

### **1.2.2 – Alumni of the training and specialization courses:**

According to the interviews and questionnaires submitted to former students which work with the transport sector, not only urban, we are able to ensure that it was given continuity to the work of CEFTRU, generating significant impacts through the continuous contribution for the achievement of the Overall Goal of the Project (*Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU, following 03 years of its conclusion and given this new institutional scenario.*

### **1.2.2.1 –Evaluation of alumni in the period of August 1998 – July 2002.**

It was sent 1200 questionnaires for the direct impact evaluation of former trainees that took part in the training courses and specialization carried out by CEFTRU and supported by the JICA Project. Only 44 questionnaires were replied, which made us “relatively” able to evaluate for this group the use of knowledge acquired in their public agencies or in other functions in the transport sector. Take into account the group that did respond to the questionnaires, 25% are not anymore working at the same organization of urban transport and/or had changed their field of work.

It was also carried out a new interview with the alumni group of the Specialization on Urban Transport, Goiânia group, which was used as a control group for the final Project evaluation in 2002, allowing the comparison of the several work trajectories followed by these professionals after 03 years of training. In the interviewed group, around 40% of the professionals changed organization and/or field of work in the same urban transport institution.

It is important to highlight difficulties faced for the realization of these questionnaires: lack of updated email addresses of the alumni; post home address change; post work address change; holiday periods, in particular year break celebrations and summer holidays in Brazil (months of December, January, February).

For this reason, interviews were carried out with some alumni as a means to obtain a sample of the results for this Project impact ex-post evaluation (medium-term).

Due to the answers provided, we are able to conclude that 100% of the alumni that are still working in the transport sector has been using the acquired knowledge; and considered highly adequate this knowledge; 95% has been disseminating the trainings through the distribution of technical materials, and 95% has been using it during their daily work.

One of the difficulties reported by the alumni in the use of the knowledge acquired, for instance in the field of statistics of accidents, was the lack of personnel responsible for the gathering and systematization of these data at a given agency at local level of administration. Another element is the lack of financial resources of agencies in order to give continuity to tasks specialized on traffic, especially in the local level.

Among the alumni, 54% have attended at least one new course, following the training at CEFTRU, and 85% would recommend that their own institution send other students to the Center; 86% would like to take a new course and 98,5% would take it at CEFTRU; and 54% are still in touch with CEFTRU even after the conclusion of their training.

We have selected some examples of reasons why student have chosen CEFTRU and the benefits obtained with the training: qualification has brought new job opportunities and better salaries; valorization at their own agencies; recognition by the work market; need of staff training at their own

institutions; quality of the contents, teaching staff, didactic material and installations; a positive image and recognition of UNB and CEFTRU in the field of transport; contents adequacy towards market innovations and institutional scenario; reliability and seriousness of CEFTRU, expertise in the field of research; new possibilities to amplify technical capacity (masters degree); support and installation structures and the cost-benefit relation for the training at CEFTRU if compared to other centers.

Some comments and recommendations stated in the questionnaires and interviews: “Following my participation in the course, I started to be seen in my municipality as a technician with higher capacity, and therefore, more credibility related to the proposed projects. I do recommend the continuity of courses as designed”.

“A new interchange could be promoted with the previous participants in order to know the implemented projects and their benefits”.

“They should carry out more specific courses and with a longer term in the field of civil aviation... There should be long-distance basic courses for those who are not able to attend it”.

“CEFTRU is an excellent institution on teaching and research that reinforces its quality, name and respect by the University of Brasilia. The level of professors grants any comment, the best in the field, with the opening of new installations, I believe CEFTRU will solve its installations problems”.

“Carry out seminars and conferences with students that have attended the courses...”

“Every time there is a legislation change, organize update meetings for its alumni”.

“The municipalities lack structure to hold trainings for their staff on specific issues such as Traffic and Transport Engineering. It is impossible to do so at the municipal level. Thus, it is crucial the realization of training courses at the national level”.

“The partnership with the federal government with institutions such as CEFTRU is very much welcome and desired by the municipalities. (...) In the field of urban transport, CEFTRU has shown its capacity to play this important role. Actions like this could change our society, improving the dissemination of knowledge, and making standard actions and technical work in the municipalities”.

“CEFTRU needs to do a better publicity promoting its technical work”.

“My thanks to CEFTRU for realized in 2001 the course for traffic supervision, making me able to work and develop my activities before the Traffic Agency.”

“Give opportunities for the training of students and they are the disseminators of knowledge on Traffic in our cities”.

“The more courses are carried out and accessible to the community, more educated drivers we would have and more lives would be preserved ... organization of basic courses to the community at lower cost”.

### **1.2.2.2 – Alumni in the period of August 2002 – December 2005.**

In this period 3.967 students were trained through 102 courses, with 18 different types of courses including the “Specialization”. CEFTRU submitted evaluation questionnaires at all courses, but in 05 types of courses a different evaluation questionnaire was submitted if compared to the other 13 courses. However, the evaluation structure of questionnaires allows comparison of basic data aiming to execute the evaluation of this information.

Out of the 101 courses held since 2002, 63 were for the training of managers and technicians at the municipalities not integrated to the SNT, promoted by DENATRAN and CEFTRU only in 2005. As previously stated only 750 Brazilian municipalities were already integrated to the System. In order to integrate the other 4500 municipalities in the coming years, DENATRAN has counted with the CEFTRU support, which in 2005 carried out these courses for about 1090 cities, through the training of 1759 students, representing 50% of all trainings held only in 2005 by the Center.

It should also be noticed that in 2004, 11 courses were realized for the training of technicians on Traffic, with the financial support of DENATRAN, counting with 667 technicians at federal, state and especially municipal level. These 11 courses were carried out in 11 locations and participants coming from 194 Brazilian municipalities have attended it.

This type of training is in accordance with the diagnostic of management systems on urban transports of cities previously selected, realized by CEFTRU in Northern, North Eastern and Center Western Regions, during cooperation with JICA. This diagnostic served as a basis for the design of the training and research fields dealt with by the Center, following the cooperation and keeping the effort of continuity of achievement of the Overall Objective and the Development Objective (Super Goal) in the medium and long terms.

At this diagnostic, it was identified the need to give priority for the training of mid-level staff of the municipalities, in regions such as Center-West, North and North East. Afterwards, provide training to the technicians with higher level working on urban transport and municipal managers to work with this issue in the cities.

The courses carried out by CEFTRU for the integration to the SNT were attended by participants with the following average profile distribution, with variations among regions: mayors and municipal secretaries (managers) (10 – 15%); municipal staff of traffic agencies (38 – 45%).

In some municipalities, which did not have well-structured traffic agencies, the percentage of staff lowered to 7 – 10%, with a significant increase of local staff from other sectors. In the Northern and North Eastern regions, in municipalities of low development, the average education background was around 55% - 60%, while in higher developed municipalities, this percentage was would low to about 25%, with great participation of professional with a university degree (graduation/higher level).

On what concerns the issue of elaboration of Urban Transport Master Plan , CEFTRU has designed the one of Belém and is currently elaborating the one of Manaus, which might be concluded by the end of 2006. It is expected that CEFTRU is able to carry out a greater number of Urban Transport Master Plan as soon as the 120 of Urban Development Master Plan of cities of medium and small sizes are concluded. The Ministry of Cities requested from Consultants these master plans since 2005.

In this context, we hereby present the average obtained in some courses according to the evaluation of students conducted by CEFTRU after completion of some courses:

- Specialization course on road traffic engineering: Content with 90% and Instructors with 93% of approval;
- Courses on management in civil aviation: Content with 90% and Instructors with 92% of approval;
- Courses of traffic supervisors (driver's license school): Content with 92% and Instructors with 92% of approval;
- Course of traffic psychologist evaluator: Content with 88% and Instructors with 86% of approval;
- Courses on traffic education: Content with 91% and Instructors with 91% of approval;
- Courses on the integration of municipality to the SNT: Content with 93% and Instructors with 94% of approval (excellent and good);
- Course on urban mobility: Content with 85% and Instructors with 87% of approval (plenty and mostly);
- Courses for basic traffic technician: Content with 90% and Instructors with 85% of approval;

Through the analyses of available data in each report of activities and evaluation executed by CEFTRU during 2002-2005 it is possible to notice that the degree of satisfaction and expectations is around 90% as stated by the trainees and the respective Institutions, which have renewed their financial contracts with CEFTRU. In consequence, it is able to give continuity to training program with CEFTRU. Besides, it is possible to notice that CEFTRU instructors are evaluated in a very positive way, around 90%, given their knowledge, clear statements and teaching dynamics.

In some of these courses, evaluation of contents and capacity of instructors of the first course is around 90%, and in the third course the evaluation is increased to 94%, as it is the case of the specialization course on civil aviation. This situation reflected the improvements of CEFTRU to make permanently some corrective actions in the training courses.

A meeting was carried out with the ex-trainees from the Specialization on road traffic engineering held in Goiânia, as a means to validate some information of evaluations previously made (2004) about its importance for the transport sector, also at the state level, and the impacts that CEFTRU's courses are generating to the Center Western Region of Brazil. This specialization course



was organized due to a request from the recently established Agency of Public Works and Transport of Goiás.

In the areas of research and development of projects, CEFTRU has been realizing its work in the fields of road pavement, traffic engineering, environmental issues and methodology of urban transportation. For this, it was use the resources of laboratories and professionals attending the Masters Degree, besides counting with a important group of independent consultants. These initiatives have made possible the use of the knowledge generated in both research and project areas for supporting conducted courses, through the case studies and theoretical framework of its professionals.

In this research field, CEFTRU, through its professors, has taken part of Brazilian events and conferences presenting new scientific works, as well as some course students are able to carry out practical work through the masters degree researches at UNB.

It is possible to state that in the research and project fields CEFTRU has been achieving new technical improvements which are contributing for the achievement of the Overall Goal of the Project.

### **1.3 – Conclusions:**

Through the interviews and questionnaires submitted, it is possible to conclude that the overall objective of the Project has been achieved by CEFTRU, given its actions in the fields of training of human resources in urban transport as well as other areas of transport. In conformity with the national policy of public decentralization of the authority in transport, CEFTRU has been working more directly with the municipal level. At the federal level it has been working on the training of professionals from DNIT (former DNER), the National Agency on Regulation of Terrestrial Transport (ANTT) and also through research and project; and it has found a strategic participation in the capacity-building programs on urban mobility of the Ministry of the Cities.

This continuous effort and excellent degree of initiative of CEFTRU it has guaranteed an improvement of human resources in this sector, generating improvements in the management, planning and operation of urban transport. It should be highlighted that CEFTRU has been working for the expansion of its scope of work adding technical knowledge in other modalities of transport: civil aviation and road traffic engineering.

Thus, the impacts can already be evaluated through the testimonies of authorities representing the sector, as well as through the alumni of courses conducted by CEFTRU, during the period of 1998 until 2005.

In principal, the Overall Goal of the Project originally should be evaluated after 2007, that is, five years after the conclusion of the technical cooperation as stated in the Project Document and in its PDM. However, in 2005 it could be indicated that the Project has already achieved the overall goal.

According to the Project document and the indicators of the PDM, the achievement of the Project's *Super Goal* will be expected to be achieved around 2012. In the next years, it will be necessary a better monitoring from CEFTRU of its direct and indirect impacts from training actions held by the Center (since 1998) that generated better planning, operation and management in the field of urban transport in Brazil.

In the PDMe it was proposed to be achieved by the Project in the period 2007 to 2012 : effective Transport Development Programs/Master Plan are formulated; transport related education is undertaken effectively; and services of certain transport corporation are improved in a considerably number of cities and states attended by CEFTRU (more than 30 middle-scale cities and their states).

For this reason, in this evaluation, the evaluation team is able to say that the achievement of the Overall Goal of the Project certainly is contributing to the achievement of the Project's *Super Goal* until 2012.

There is strong likelihood that long-term impacts will be achieved by CEFTRU, but it will require greater number of full-time teachers and researchers. Nowadays CEFTRU works with a reduced number of permanent personnel (8), who are mainly based in the Masters Degree on Transport of the Department of Civil Engineering, UNB. However, the Center counts with a number of consultants and trainees hired according to the needs for the development of researches, training courses and projects.

The achievement of the *Super Goal*, in the coming 7 years, will also depend on the capacity of the municipalities in counting with human and financial resources for the installation of technical structures in its municipal agencies on traffic and transport, as well as with a greater financial capacity to execute projects needed to the development of this sector at the local level.

An example of these difficulties faced at the local level can be reported as the lack of continuity of the efforts carried out by CEFTRU in May 2002, when it worked together with 31 Brazilian municipalities in the capacity-building program of the Municipal Teams in the treatment of critical traffic-prone accident locations. In December 2002, a meeting was carried out with representatives of these 31 municipalities in order to evaluate and monitoring the progresses achieved in their own cities during the surveys, projects and implementation of the treatment at the critical areas. Half of the municipalities applied the methodology, but 67% did not execute the project due to the lack of support from the local agencies and inadequate logistics and financial resources.

Therefore, it is recommended that CEFTRU is able to make a similar monitoring as mentioned above in the coming 7 years, taking into consideration the use of knowledge acquired by its alumni and course participants, as well as is able to monitor verified improvements in a limited number of cities, which would be then its control group for a post-evaluation for achieving the so-called *Super Goal*.

Meeting the Overall Goal of improving the capability of personnel engaged in planning, management, operation and education of urban transport through the training programs of CEFTRU required time and joint efforts by a significant number of relevant institutions working in the Transport in Brazil, which it is an extensive sector of employment of middle and superior level of technicians at federal state and local level. However, evaluating these achievements by using PDMe indicators, we assume that the Overall Goal was achieved in the last few years (1998-2005).

Based on results obtained through interviews, the evaluation team considers that the Overall Goal medium term effects were achieved as a result of the Project's continuity after its completion. CEFTRU implemented direct actions by the introduction of new practices and improving the capability of officers of relevant organizations on the Transport sector. The effects are expanded for other areas than urban transportation.

The following medium term effects have been achieved:

Regarding **indicator 1**, at these training courses, more than 300 officers per year from relevant organizations had improved their capabilities and successfully completed around of 100 training courses (2002-2005) including Specialization. Indirectly, Public institutions and private organizations experienced new practices and improved technical knowledge's brought back by their trainees at the sphere of daily work team at its institutions of origin.

Regarding **indicator 2**, around 4,000 trainees from 2002 to 2005 obtained qualification with record of achievement of satisfactory level of learning by instructors at the time of training completion, with a CEFTRU evaluation test applied for this specific objective. In the specialization courses each student presented a final "Memoire project" that it is evaluated at least for one instructor-teacher of CEFTRU. The results of these evaluations are used by CEFTRU to give or not the certificate of course conclusion to the trainees. These types of certificate have the signature of UNB, recognized by Ministry of Education of Brazil.

Regarding **indicator 3**, from 1998-2005 medium term outcomes of improving capacity of relevant organizations related to Transport sector were achieved through the improvement of knowledge and skills learned by trainees from the training to their work. It was confirmed by questionnaires, meetings and meetings with ex-trainees from both period (1998-2002 and 2002-2005) and also it was stated by representatives of relevant institutions in the sectors.

Overall, the following short-term outcomes of the Project were initially achieved and should be increased in the next years:

The areas improved by the Project after its completion at CEFTRU, directly and indirectly, were: **(i)** Functional and organizational structure; **(ii)** Capacity of GIS, information and data system for urban transportation and other sectors; **(iii)** Coordination within sectors; **(iv)** Interinstitutional

coordination; (v) Personnel/human resources development and (vi) Procedures, syllabus of training; manuals and publications.

Long-term impacts (2007-2012) could be better consolidated with support and funding from other public and private agents, which interact on multi level issues related to Transport sector.

Regarding the outcomes obtained by direct impact of Project after its completion, the following points were identified as outcomes of a multilevel approach from the field study:

(i) A synergy model was formed by CEFTRU in the training courses implemented by different programs, confirming that the implementation of these activities strengthened trainees and their institutions work activities; at the same time, this synergy model provided, at federal, state and local level, an opportunity for exchanging information among parties concerned with transport issues and the establishment of a vertical collaboration among those public and private institutions.

(ii) Human resources at three levels of administration and from other relevant private corporations were developed through training courses and researches;

(iii) Local transport beneficiaries had obtained improvements in their life conditions through improvements introduced in the human resources of transportation area and its institutional public employers. It is possible to identify by interviews, the introduction of better operative decentralization for the management, operation, planning and education of local transport.

#### **4.1.5 – Sustainability.**

The Project after its completion remained as an effective mechanism for the development of human resources to the transport sector. The sustainability of the Project it was possible concerning CEFTRU capability of management and to ensure an increase of financial and technical resources during the last three years.

In a long term these capabilities would be strengthened for the next years to sustain the impacts and effects of the Project after its completion. After the Project was completed, the Center divided a number of long-term courses into short-term courses and, in addition, added many new short-term courses. This change was made in order to meet the needs of the trainees and institutions related to the transport sector. The Center's capacity to provide training was maintained and developed further after the Project's completion.

The evaluation team believes that technical sustainability of the Project has been ensured as the counterpart has improved technical knowledge introduced during the project implementation and new short term courses. The organizational structure has been stable as it has seen as major change

since the end of the project. On the financial side, the budget has increased considerably, confirming its medium term sustainability.

The Center based on interviews of stakeholders and participants of trainings is encouraging its instructors to improve their technical skills and content of disciplines. In addition, the Center encourages ex-participants to pursue higher degrees in their education in urban transport. However, turnover rate is medium for staff in the UT field, and only 4 out of the 14 counterpart personnel who received training in Japan are still remaining at the Center. New projects, researches and new short-term courses force the Center to compensate for its internal shortages by using external instructors and trainees, and currently it is employing a large number of them.

Further, the Center's management structure has improved in the last 3 years. The Director and Representative Director are working on a day-time basis, and some functionaries acting as division heads forces and some professors are supporting concurrently as head of the 4 technical laboratories.

Regarding the operational budget, on average, the Center has been receiving about 90% of its revenue from contracts passed with the Ministry of Cities (DENATRAN) and the ANTT for develop training and research. The other 10% of revenue come from other short or long-term training for the past 3 years. In recent years, the budget allocations from UNB is stable covering only the part of personnel expenses and facility management ones in CEFTRU, reflecting the Government's fiscal situation.

It is very low the revenue percentage which goes to maintenance and low upgrading of the equipment. The Center still maintains necessary installations and facilities for training; however, the Center seems to be lacking in number of necessary IT equipment and new class-rooms. Through a contract of Project development with ANTT, the 18 computers that are today available at CEFTRU may be sent back to this Agency by the end of the Project. At the information technology room are placed the older computers donated by the Japanese government through a Project, without much improvements on what concerns performance and operational capacity.

Since the completion of the Project, many organizations and schools other than the Center are now able to offer training to Urban Transportation technicians, bringing a new challenge to the Center's role in the new context of UT in Brazil, with a strong process of decentralization and municipalization.

For this reason, the Center is working on other fields of transport, diversifying its action but keeping its excellence in the field of urban transport. For example, other Universities and Private Consultants Firms started to provide similar services, and they are able to take in training courses a larger number of students.

As for the training activities, most of the participants for professional training courses are from local governmental institutions, but there are also participants from the state and federal levels, expanding the range of students targeted.

The total number of short courses is increasing since the conclusion of the Project. In 2002, the number was of 10 with 353 participants; in 2003, 08 courses with 292 participants; in 2004, 12 courses with 709 participants and in 2005, 67 courses with 1898 participants.

These data show growth of almost 500% in number of students since 2002 and in terms of courses this increase was of almost 670%. This in fact provides evidence of the quality and credibility of the trainings organized by CEFTRU, ensuring strong likelihood that sustainability of the Center will be achieved in a medium-term on what concerns requests for long - term courses for mid-level technicians at the municipal level.

In relation to the specialization courses, it is observed that during 04 years of execution of Japanese cooperation, it was carried out 08 courses with 275 participants. From 2002 to 2005, the Center has realized 05 specialization courses with the participation of 100 students. These data show that there was 62% decrease in the number of courses and 41% decrease in the number of participants.

The courses of short term receive public funding through contracts with CEFTRU, while the specialization courses have a greater participation of students, who in most cases do not count with resources from their agencies for fees and costs for staying in Brasilia. This is one of the reasons that would explain the decrease in the number of specialization courses and number of students.

Another factor that leads to sustainability is the permanent evaluation process realized by the students not only in content, management, installation and equipments, but also in relation to the instructors and teaching methodology used. These evaluations have been useful for the improvement of contents and replaced instructors in certain teaching modules. CEFTRU carries out a monitoring and evaluation before the governmental institutions, which required short term training on Transport.

Due to the requests for new short duration courses, CEFTRU has kept a high productivity in the elaboration of new materials and contents for the upcoming courses. The Center has been updating didactic contents since the Japanese cooperation due to the changes in the Transport sector in the last 3 years.

The equipments donated during the cooperation are still in use by CEFTRU, as well as the new equipments integrated to the institution according the administrative and patrimonial report of the University of Brasilia. The maintenance of equipments and installations is a routine. During this evaluation it is noticed the renovation at the old information technology division at the old building in order to be used by the second building of CEFTRU. Currently, CEFTRU has some difficulties to keep updated its Information Technology Division.

Through interviews and meetings with governmental institutions demanding training activities of the Center, positive feedbacks were provided on the sustainability of CEFTRU in the last 3 years and also indicating that in the coming years they shall be given follow-up to the current trainings with this institution; as well as will keep considering CEFTRU as a privileged center for research and development of Projects.

However, it was highlighted currently other university centers and consultancy firms are starting to get into this market. This situation will generate more competition for new markets, require more efforts of the Center in expanding its teaching installations (new investments) and require the revision of its execution costs for research and projects development.

This is due to the fact that currently CEFTRU has to include in its costs a percentage of around 10% to 15% for the use of administrative services from the *Fundação Universidade de Brasília*. Recently, the Brazilian legislation for public tender and contract was modified, not allowing anymore a public agency to pay overhead to another public institution.

The Project remained as an effective mechanism for the training of human resources of urban transportation and other sub-sectors of Transport sector. The long term sustainability of the Project will be possible if CEFTRU manages and ensures an increase of financial and technical resources for the next 10 years, in the area of training and project development.

CEFTRU is appropriately organized in terms of facilities and number of personnel during the period of evaluation. Feed back from the result of questionnaires and interviews with stakeholders and trainees shows that their efforts to improve the courses as to keep the quality.

The CEFTRU continues to conduct public-relation activities such as home page, video and institutional presentation of it to new UNB graduated and master students, and this produced an enlargement of contact with external organizations. Participation in seminars, congresses and meetings during this period widened the knowledge and brought mayor national visibility of the Center.

The following implemented initiatives will be supportive of the operational and technical continuity of CEFTRU for the forthcoming years:

- (i) conclusion of the first floor of the new building, adding 03 more classrooms;
- (ii) construction of the second floor of the new building;
- (iii) diversification of capacity-building on Transport;
- (iv) expansion of the areas of research and development of project on Transport;
- (v) short-term training courses in the field of traffic and urban mobility;
- (vi) continuous process of course monitoring and evaluation;
- (vii) building a network of professional in the field of transport;
- (viii) integration with the Master's Degree on Transport of UNB;
- (ix) professors with technical and didactic capacity;

- (x) technical and didactic materials updated annually;
- (xi) recognition by the federal, state and municipal transport agencies;
- (xii) website and participants in conferences and seminars.

Taking into account the relevant actions mentioned for the sustainability of the Project these are **risk factors to long term sustainability (2007-2012)**:

- (i) Policy changes upon presidential, state and municipal elections in forthcoming 4 years;
- (ii) Frequent changes in technical and management resources in different levels in Transport sector;
- (iii) Weakness of the interinstitutional national transport policy;
- (iv) Shortage of coordination among different governmental levels in the Transport Sector; (v) Ever changing annual flows of financial and budgetary resources at all Governmental levels to Transport sector; and
- (vi) Difficulties in equipment acquisition in CEFTRU.

**Contributing factors** that could promote to the long-term sustainability of the Project outcomes and impacts could be related to:

- (i) Establishment of the National Agency for Regulation of Road Transport; the Ministry of Cities and on its incorporation of DENATRAN;
- (ii) CEFTRU and UNB institutional commitment for the continuity of initiatives;
- (iii) New market demands from shortage of qualified human resources in the different levels of management of urban transport market;
- (iv) National recognition of CEFTRU's technical capability in Transports (Ministries, municipalities, universities and private enterprises);
- (v) Support of public agencies through contracting CEFTRU to develop projects and trainings;
- (vi) Training of local technicians and elaboration of educational documents for the dissemination and training of new officers in Transport sector; and
- (vii) Implementation of long distance training courses in Transport .

It is possible to evaluate that the Project is likely to be high sustainable in the forthcoming 5 years, as it was obtained during 2002-2005 based on previous analyses, but there is a certain degree of concern for its continuity regarding personnel and financial resources allocation by CEFTRU to increase its participation on this sector of training human resources.

CEFTRU has been working to provide services in the field of transport, with the University support. Therefore, it has realized its strategic management based on the currents demands of the sector. In case of market retraction, CEFTRU is still able to keep its activities due to the



diversification of areas of work. It also shows great agility and capacity to adapt its management since it keeps up an appropriate structure, counting with more than 95% of the technical personnel hired temporarily for the Project. On the other hand, the Center could face some difficulties to respond to requests for new specialization courses and researches due to its reduced number of permanent teaching personnel to coordinate new intensive demands.

Interviews with CEFTRU staff indicated that the Center initiated new negotiations with the Ministry of Cities in 2006 to obtain funding for the continuity of some training courses and for new projects in the urban transport sub sector. The results of these negotiations will be known by CEFTRU in the middle of 2006. The same concerns are also expected at state and local levels regarding technical and financial resources for the forthcoming years for training and project development.

This evaluation of sustainability is based in the following factors:

- (i) Factors related to sustainability were included in the Project design and CEFTRU is still working with the strategy to: diversify its work on Transport; keep a communication network with institutions of the transport sector; and keep a group of professors with high qualification and professional recognition;
- (ii) Some strong efforts were made after the project implementation for its continuity, such as new funding sources and the construction of the second building of CEFTRU; and
- (iii) During 2002-2005, indicative and strategic planning towards its continuity in the next years was obtained generating an expansion in the areas of work of CEFTRU in the Transport Sector.

## **Conclusions:**

Based on the interviews, questionnaires, visits and reports it is possible to state that the Project's sustainability was achieved during these 03 years following the conclusion of the Project.

It is also possible to state that there is high likelihood of achieving it in the long-term due to the technical, financial and administrative management of the Center, which has been working on strategic actions for its sustainability in the coming years (2007-2012).

As the results of the previous detailed analysis on sustainability in the CEFTRU's Project from the technical, organizational, and financial aspects, the evaluation team considers that the sustainability of each of these aspects influenced one another, which leads to the sustainability of the overall effects of the Project, in the last 3 years.

The technology transferred through the Project has been sustained and developed. It is positively evaluated the continuous efforts of CEFTRU to sustain and develop the transferred technology and knowledge in urban transport area. Even more after the termination of cooperation the CEFTRU worked on an upgrade of the knowledge in the urban transportation sector and incorporated new areas of Transport in the portfolio of the Center services.

It was observed new improvements such as establishment of new training courses, by independently utilizing the transferred techniques; the CEFTRU is disseminating acquired knowledge and techniques to new consultant and teachers staff that had not directly received technical training during the Project.

Another important initiative of CEFTRU it is improving their technical skills by exchanging information with the other universities, research centers and public organizations concerned in the fields of training, research and projects development in Transport and attending external training, congress, meetings and seminars in this subject. Nowadays, the CEFTRU has consolidated its role in the Transport sector and it is well known among those who are working in the transportation related organizations in Brazil.

This Center exchanged information and carried out researches in Transports using the network formed with an increasing number of public and private organizations in Brazil but also maintains a cooperative relationship with related organizations and overseas research centers as in France, Japan and United Kingdom. This kind of network generates activities and conditions for sustaining and improving their technical levels to continue developing new training curriculum and materials in new demanded areas in the Transport sector, after termination of the Project.

The CEFTRU's organizational and institutional sustainability is satisfactory because its position within the policy framework, and the institutions related to its activities are stable enough to sustain and develop activities initiated or enhanced by the Project.

Despite the fact that the Center has only limited allocation of UNB budget to cover only the part of personnel expenses and facility management ones in CEFTRU. Therefore, they carved out a way to increase self-generating income by charging for providing training programs ; executing consigned research work and consulting work outside of UNB as well as financial support from contracts by ministry of cities; ANTT and other important public organizations related to urban transportation area.

The CEFTRU's financial sustainability is permanently dependent of its own initiative to secure sufficient income in order to sustain the Project effects and to develop new initiatives executed by the Center after the Project's completion.

The CEFTRU is part of that group of organizations that gained sufficient self-generating income by attending a source of demands in the market despite insufficient or reduced allocation of the governmental budget. It could be possible that would exist in the next forthcoming years a certain degree of risk to financial sustainability of CEFTRU, because market demands for Project activities would be stagnated due to external factors such as an economic or transportation sector crisis.

After three years the Center acquired in a certain degree financial stabilization, this Project achieved not only organizational sustainability but also high sustainability in overall effects of the

project resulting from training transport engineers from different modalities; middle level public and private technicians in transportation and traffic; and local managers in urban transportation.

The following institutional and resources factors of sustainability in order to keep impacts achieved a long-term (super-goal and overall goal) could be likely:

- (i)** Support by the high management level of UNB: medium high;
- (ii)** Legal framework and regulations: medium high;
- (iii)** Organizational capacity: medium high;
- (iv)** Capacity within the organization: medium high;
- (v)** Interorganizational capacity: medium high;
- (vi)** Availability of financial resources: medium low;
- (vii)** Sufficient permanent technical resources: medium low;
- (viii)** Resources for equipment acquisitions, maintenance and infra-structure: medium low;
- (ix)** Support from the Project beneficiaries: high;
- (x)** Support from the federal, state and municipal level governments: medium high.

## **4.2 – Conclusion**

### **4.2.1 – Promoting factors for Project outcomes.**

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

The Project design originally proposed actions for the technical and institutional strengthening of the CEFTRU, and consequently improving the conditions to training personnel engaged in the urban transportation provided by the Center. The initial content and implementing method of the Project based on: improving technical capabilities of internal staff of CEFTRU; and implementing different circuit level of articulations and meetings with institutions related to the Transport sector. Both ways of action were relevant to development issues of CEFTRU on Planning and Operational Management of Training courses. This led to some increase of the achievement of Project Purpose and Overall Goal by integrated implementation of activities of the Products' outputs.

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

During the **Project implementation (1998-2002)** the Evaluation team identified the following **promoting factors**:

- 1-**The effective organizational management of the implementing organization in terms of activities, small-scale inputs, small budget, and human resources highly qualified, installations and facilities adequate;
- 2-** Policy support obtained from the Government and Transport Sector relevant institutions;
- 3-** Public and private organizations demands for the activities of the CEFTRU in transport sector: training; research and project development;
- 4-** Excellent collaboration and cooperative relationships among related public and private organizations in the Sector

**After the Projects completion (2002-2005)**, it was possible to identify **other promoting factors** for the continuity of achievement of Project Purpose and Overall Goal that CEFTRU is continuing working with:

- (i)** Establishment of network of public institutions and private corporations in the Transport Sector;
- (ii)** Academic, Consultative and Deliberative Committees with operational decision-maker level subjected to the Cabinet of the Rector of UNB;
- (iii)** Establishment of local networks of ex-trainees of CEFTRU training courses able to disseminate knowledge and new practices in the Transport area;

- (iv) Successful experiences and lessons learned with training courses and researches disseminated by CEFTRU in new areas of training and new institutions at different levels;
- (v) Establishment of informal networks for the interaction between federal, state and municipal institutions levels through trainings and researches developed;
- (vi) Establishment of links between CEFTRU high qualified professionals and the Master Degree Course professors, transport teaching and research associations; and
- (vii) Permanent integration activities with the other Brazilian Universities and Foreign Research Centers related to the Transport Sector.

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

### **4.2.2.1 – Factors related to Design and Planning.**

The original Project proposal has not presented inhibiting factors related to design and planning in accordance with the Terminal Evaluation Project Report, neither it was identified after its completion.

### **4.2.2.2 – Factors related to the Implementation Process.**

**Inhibiting factors** in the Project implementation and after its completion were:

- (i) Shortage of financial resources of the Brazilian counterpart to new investments;
- (ii) Delays in the execution of the second building of CEFTRU;
- (iii) Delays in the operation of equipments of road pavement and environmental issues related to urban transport.

## **4.2.3 - Conclusion:**

The Project after completion is still in conformity with the Brazilian Policy on Transport, which could be confirmed by the training strategies and projects of the Ministry of Cities and other relevant public institutions in this sector. It is also well related to the cooperation policy of the Japanese Government in the field of support human resources development in Transport.

The Project design originally assured the conditions to CEFTRU even after its completion to keep going and to increase with the training activities to Transport Sector; researches and developing projects on this matter. This strategy was positive on what concerns better conditions for the achievement of Project medium-term results, Purpose and Overall Goal.

The effectiveness of the Project after its completion is considered to be medium satisfactory regarding the fact that is still not yet complete the conclusion of the second floor of the building of

CEFTRU and the installation of equipments of road pavement and environmental issues related to urban transport activities.

The actions undertaken appointed as highly probable that the long-term flows of benefits are kept by the Project in the next 5 years. It was evaluated as highly satisfactory the medium term impacts and outcomes achieved by the Project after its completion.

The Products were continuously technically adequate carried out by CEFTRU, achieved within the deadline planned and costs were reasonable for the achievement of the Project's Purpose after the Project completion.

After Projects completion, the allocation of technical, administrative and budget by CEFTRU for the continuity of the development of the Project has initially faced some problems due the shortage of budget for the conclusion of the second building.

The Projects outputs and short-term outcomes achievements contributed to obtain the Overall Goal. Nevertheless, CEFTRU will have an important role in the future achievement of the Super Goal by increasing the participation of other relevant public institutions related to Transport Sector to obtain it.

The Project 2002-2005 implemented 101 training courses; 3967 students were trained, at least 10 researches and 04 development of projects by CEFTRU. These initiatives are improving the ability of officers in the relevant organizations in the Transport Sector.

The Overall Goal was quantified, and it was possible to identify a significant improvement in the number of trainees, increasing trainees achievements of new skills and knowledge and increasing the number of cities (transport local institutions) participating in the training courses implemented by CEFTRU in the last three years.

We assume that the overall goal was achieved and increased in the last three years as a result of increasing actions and initiatives in the training area by CEFTRU and others training institutions with significant financial support of the Ministry of Cities and other relevant public organizations at federal, state and local levels related with transport sector issues.

The sustainability of the Project after its completion was highly guaranteed in terms of financial, technical and institutional aspects. It will be possible to obtain the sustainability for the next seven years (2012) if CEFTRU manages and assures new contracts producing an increasing amount of financial and technical resources (consultants) for the next few years.

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

### **5.1 – Lessons learned:**

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

The main lessons learned were the following:

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

To enhance the effect of the Project, it could be recommended to each 2 years dispatch experts after the conclusion of the Project to update the needs and skills of Human Resources Center like CEFTRU. In the future, interchanging experiences with Japanese Center of training from universities similar to the CEFTRU helped to facilitate understanding of the recipient’s updated needs and could contribute to new areas of joint researches for developing countries in the Japanese and Brazilian transport institutions.

##### **Lessons learned 2:**

It was most sustainable not to create an independent entity but rather to provide and develop knowledge and technology in an existing organization that promotes development in a particular area. Creating a new entity is not necessarily the best solution to adopt; the positive way could be to develop and enhance the necessary ability of an existing organization in accordance with its capacity and future improvements. It could be more sustainable in a medium and long term to develop and enhance the ability of a young existing entity than to create a new one

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

The Project after its completion presented CEFTRU management with a high standard of initiative, adaptability and innovation by defining a strategy which increased the area of scope of its types of training Courses. CEFTRU training courses are considered sample of success and viability, due to technical, institutional and operational execution by an autonomous public institution. The CEFTRU is part of that group of organizations that gained sufficient self-generating income by attending a source of demands in the market despite insufficient or reduced allocation of the governmental budget.

## **5.2 – Recommendations:**

### **5.2.1 – Recommendations for the Brazilian counterpart.**

#### **Recommendation 1:**

The main recommendation for the Brazilian counterpart concerns measures for the continuity, in the forthcoming years, of initiatives related to the continuity of the Project's results. That means the CEFTRU's ability to assemble the resources, mobilize support from public and private relevant institutions related to transport sector and develop the political influence with UNB and different levels of articulation required to achieve it.

#### **Recommendation 2:**

Establishment of new direct associations with effective institutions at local and state level could be more participative in the implementation of new training projects following the national decentralization policy. It could be very efficient due to the facilities presented by the proximity of local communities and the local perception of issues related to the urban transport development.

#### **Recommendation 3:**

CEFTRU must considering setting up third country training programs with other developing countries (public and private organizations) to maximize and share the experience of its training courses achieved after 08 years of JICA Technical Cooperation in this area.

#### **Recommendation 4:**

CEFTRU must consider setting up exchange programs with other government institutions or the private sector, which would intensify its research, training and project development activities and strengthen its position in recommending transportation human resources policy. This would increase the CEFTRU's opportunities to be involved with practical transportation human resources training issues.

#### **Recommendation 5:**

It is also important to consider using the CEFTRU for regular scholarships to master degree, specialization and short-term courses (80 hours) from Ministry of Cities, ANTT, DNIT, DENATRAN.



## **5.2.2 – Recommendations for JICA**

### **Recommendation 1:**

In the phase of drafting proposals for future Projects, it is recommended that, in order to reduce difficulties in the execution of the Project during periods of political-administrative changes, the following actors actively participate: civil society representatives; state and municipal governments and non-governmental organizations, among others.

### **Recommendation 2:**

In the phase of drafting proposals for future Projects, the team should consider the elaboration of a component for monitoring and evaluating the Project after its completion, at least during 5 years, including suggestions of qualitative and quantitative indicators for the activities planned for this period. .



## **ANNEXES:**

**1- PDMe 2002 -2005**

**2- EVALUATION GRID**

**3-ACHIEVEMENTS OF PROJECT 2002-2005**

**4- ACTIVITY ANNUAL PLANNED 2002 -2005**

**5- LIST OF INTERVIEWED AUTHORITIES AND PERSONNEL**

**6 – LIST OF TRAINING COURSES 2002-2005**

**7 – ORGANIZATIONAL CHART**

**8 – OPERATIONAL CHART**

**9 – LIST OF FUNCTIONAIRES AND PRINCIPAL CONSULTANTS**

**10 – LIST OF PROFESSORS OF MASTER COURSE IN TRANSPORT OF UNB**

**11 – THIRD PARTY REVIEW**



## PDMe 2002 - 2005

**Project Title:** Urban Transport Human Resources Development Project

**Executing Organization:** Centro de Formação de Recursos Humanos em Transportes, Universidade de Brasília. (CEFTRU)

**Implementation period:** August 1, 1998 to July 31, 2002

**Date of PDM:** December, 2005

(Narrative Summary)	(Objectively Verifiable Indicators)	(Means of Verification)	(Important Assumptions)
<p><b>Super Goal:</b> Planning, management, operation and education in the field of urban transport are properly undertaken in Brazil</p>	<p>By the year 2007-2012 (5~10 years after the end of Project period), effective Transport Development Programs/Master Plan are formulated, transport related education is undertaken effectively, and services of certain transport corporations are improved in a consideration number of cities and states attended by CEFTRU. (More than 30 middle-scale cities and their states).</p>	<p>1. Interviews toward local cities' transport sections, transport related corporations and driver's license schools. 2. Transport Development Programs/Master Plan.</p>	<p>1. There is no significant change about Governmental policies about local cities' transport. 2. Each city or state's assignment of budget and personnel to the transport section is maintained.</p>
<p><b>Overall Goal :</b> Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU.</p>	<p>By the year 2007 (5 years after the end of Project period), 1. Considerable number of trainees successfully complete training. (More than 300 trainees per year are anticipated to complete all courses including "Especialização"). 2. Trainees obtain qualification/record on achievement of satisfactory level of learning by instructors at the time of training completion. 3. Trainees apply knowledge/skills learned from the training to their work.</p>	<p>1- Record of training courses (indicating title, type, period, number of participant, and place of the course).  2-Result of test to trainees, evaluation record by instructor.  3-Interviews toward trainees concerning the effect of training.</p>	<p>1. Trainees area assigned to suitable sections related to transport administration or transport business. 2. More opportunities of training provided to transport related corporations. 3. Minimum level of hardware with which trainees can practice the acquired skills and knowledge is installed in cities and state transport sections and in transport related corporations. 4. The Constitution requires cities to formulate Master Plan.</p>

<b>(Narrative Summary)</b>	<b>(Objectively Verifiable Indicators)</b>	<b>(Means of Verification)</b>	<b>(Important Assumptions)</b>
<p><b><u>Project Purpose:</u></b></p> <p>CEFTRU is well establish so that training of personnel engaged in planning, management, operation and education related to urban transport may be undertaken effectively.</p>	<p>By the end of the Project (year 2002):</p> <ol style="list-style-type: none"> <li>1. Facility, organization and Programs of training courses are arranged;</li> <li>2. Training courses for urban transport, including “Especialização” and the other types are settle to be executed regularly;</li> <li>3. CEFTRU has good reputation as for its training courses from trainees who completed the course (or those are in the middle of training).</li> </ol>	<ol style="list-style-type: none"> <li>1- Record of training courses</li> <li>2. Quarterly report of activities (“shihannki-houkoku”) and report of inputs activities.</li> <li>3. Interviews toward trainees concerning the effects of training.</li> </ol>	<ol style="list-style-type: none"> <li>1. Governmental agencies, UNB’ keep financial and other support from CEFTRU.</li> <li>2. C/Ps remains instructors in CEFTRU.</li> </ol>
<p><b><u>Outputs:</u></b></p> <ol style="list-style-type: none"> <li>1. Training programs which suite the demand of planning, management; operation and education on the field of urban transport are prepared.</li> <li>2. Capability of instruction in the field of urban transport is obtained.</li> </ol>	<ol style="list-style-type: none"> <li>1.1. The demand for training is grasped through investigation and public relations.</li> <li>1.2. Training program for planning, management, operation and education in the field of urban transport is completed.</li> <li>1.3. Printed materials for training are prepared according the plan.</li> <li>2.1 – Number of qualified instructors are enough.</li> <li>2.2. Knowledge on business and current technology related to transport are always investigated.</li> </ol>	<ol style="list-style-type: none"> <li>1.1- Results of investigation and public relations (result of demand analysis, brochure, homepage, etc of CEFTRU records of symposium, seminars, etc.)</li> <li>1.2- Training Program.</li> <li>1.3. Printed materials and the list of them.</li> <li>2.1. Plan or record of training courses.</li> <li>2.2. Record of Research and Development Activities.</li> </ol>	<ol style="list-style-type: none"> <li>1. Governmental agencies, UNB’ keep financial and other support from CEFTRU.</li> <li>2. C/Ps remains instructors in CEFTRU.</li> </ol>

<b>(Narrative Summary)</b>	<b>(Objectively Verifiable Indicators)</b>	<b>(Means of Verification)</b>	<b>(Important Assumptions)</b>
3. Facilities and equipment necessary for training are well prepared.	3. Needed facilities and equipment are installed, fully utilized, and also well maintained.	3: The list of facilities and equipment, and document to show the situation of utilization.	
4. CEFTRU is properly managed in terms of organization, personnel and finance.	4.1. Enough number of personnel is assigned and is operative and sound financial management is undertaken in the limit of originally made budget plan.  4.2. Proper monitoring is undertaken based on this PDM and annual Plan of Operations.	4.1. CEFTRU's organization chart, C/P task assignment chart and quarterly report of activities ("shihannki-houkoku") and report of inputs activities.  4.2. Minutes of the executing committee, monitoring reports and the background data.	

### EVALUATION GRID – URBAN TRANSPORT PROJECT/UNB

5 Evaluation Criteria	Evaluation Questions		Judgment Criteria	Required data	Information Source	Data collection
	Questions	Sub-question				
Complementary questions	- Had the CEFTRU implemented environmental management for Urban transportation?		PDM { Planned: 1998 Obtained: 2002 e 2005	- PDM - CEFTRU performance from 2002 to 2006 in terms of outputs, activities and inputs  -Technological improvements on environmental management for Urban Transportation.  - List of trainees - List of trainings and seminars held during the period from 2002 to 2006. - List of regional communication campaigns, textbooks and other initiatives on this area.	- PDM - Final Evaluation Report /JICA  - INMETRO Equipments' Certification  -CEFTRU	- Review of Material. - Interviews.
	- What actions and factors held from 2002 to 2006 had assured knowledge transfer in environmental education and management?					



<p>Are facilities and organization of CEFTRU improved since 2002 in order to be sufficient to conduct training in road pavement and environmental issues</p>	<p>Are the second building constructed?</p> <p>Are the laboratories and road pavement equipments and environmental issues implemented and 100% operational?</p> <p>Are the equipments donated during 1998 to 2002 been well maintained and in perfect conditions to be used?</p> <p>Have the environmental equipments donated by JICA been authorized by INMETRO?</p>	<p>PDM          { Planned:2002          { Obtained:: 2002 e 2005</p> <p>- Recommendations from Final Evaluation Report.</p>	<p>-Second building constructed and surface;</p> <p>- Number and types of Laboratories in operation.</p> <p>- Number of equipments and materials for road pavement and environmental issues installed and operated.</p> <p>.List of materials and equipments donated 1998/2002 and compare with actual list of equipments and materials in use by CEFTRU, with evaluation of maintenance program.</p>	<p>- CEFTRU.</p>	<p>- Technical visit to CEFTRU;          - Review of material;          - Interview.</p>
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5 Evaluation criteria	Evaluation Questions		Judgment Criteria	Required data	Information Source	Data Collection
	Question	Sub-question				
Impact (achievement of overall goal)	Has the Overall Goal been achieved during the period between the project's final assessment (2002) and Dec. 2005?	<ul style="list-style-type: none"> <li>- Can the short and mid-term effects be felt yet? Which ones? Description (quality/quantity)</li> <li>- Which were the long term effects (impacts) achieved?</li> <li>-Which long term effects will be achieved after January 2006?</li> <li>-Which actions is the CEFTRU currently taking to measure these impacts in the near future?</li> <li>-Could the CEFTRU have an action plan to measure these impacts to be achieved in the near future?</li> <li>- Indication of effects and impacts of the project from 2002 to January 2006?</li> </ul>	Increase of human resources capability involved in the areas of planning, management, operation and education in urban transport, through training carried out by the CEFTRU	<ul style="list-style-type: none"> <li>- Training carried out during the period from 2002 until January 2006 by: quantity, typology, geographic origin and by institution of the trainees.</li> <li>- Training during the period from 1998 to 2002 by: quantity, typology, geographic origin and by institution of the trainees.</li> <li>- Evaluations made by institutions of the sector of the improvement of HR capability in the field of UT through CEFTRU's training program.</li> </ul>	<ul style="list-style-type: none"> <li>- Annual activity reports.</li> <li>-Final Evaluation report.</li> <li>- CEFTRU/UNB.</li> <li>- Trainees in different capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>- Review of Material</li> <li>- Interviews.</li> </ul>
	Which actions not originally planned by the technical cooperation design could have generated bigger impacts in this kind of project?		Design of other cooperation projects in the field of HR training.	<ul style="list-style-type: none"> <li>- Compare actions needed taken in other projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Other projects reports</li> <li>- Missions of Japanese experts</li> <li>- Missions of Brazilian experts to Japan</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- Review of Material</li> </ul>

Impact	<p>What are the positive and/or negative impacts of this project on the national and sectoral development policy?</p> <p>Factors inherent to the nature of the training project, impact generators.</p> <p>Factors external to the training project, impact generators</p>	<ul style="list-style-type: none"> <li>- Would the impacts be restricted to the north, north-east and mid-west regions? Or would they be felt nationwide.</li> <li>- Has the number of contacts of CEFTRU with similar organizations and institutions increased?</li> <li>- What is CEFTRU's participation in research and development in the urban transport field?</li> <li>- Has the participation of trainees from other regions of Brazil increased between 2002 and Dec. 2005?</li> </ul>	<ul style="list-style-type: none"> <li>- Final Evaluation Report</li> <li>-Situation in Dec. 2005</li> </ul> <p>The period of 2002 and Dec. 2005 has registered:</p> <ul style="list-style-type: none"> <li>-an increase in number and types of agreements signed.</li> <li>-increase in participation in training networks in target regions.</li> <li>- Increase in number and relevance of institutions participating in training.</li> <li>- new research and development areas were added to CEFTRU between 2002 and Dec. 2005.</li> <li>- Has the volume of research and development provided increased between 2002 and Dec. 2005?</li> <li>- Trainees from other regions in 2002 and in 2005.</li> </ul>	<ul style="list-style-type: none"> <li>- Existence of preliminary evaluations carried out by UNB and MT on impacts generated by the project (between regions and nationwide).</li> <li>- List of e-mails, letters and regions of trainees between 2002 and Dec. 2005.</li> <li>- Mechanisms of cooperation between training institutions.</li> <li>-List, volume and value of services provided in 2002 and 2005.</li> <li>- List, volume and value of services provided in 2002 and 2005.</li> <li>- List of participants by region and by management level; public or private, qualification ( undergraduate, diploma, masters and PhD)</li> </ul>	<ul style="list-style-type: none"> <li>-UNB and MT</li> <li>-CEFTRU</li> <li>- Transport Regulatory Agency</li> </ul>	<ul style="list-style-type: none"> <li>- Review of existing Material</li> <li>- Interview</li> </ul>
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-What other projects and/or interventions have acted as synergies to expand the effects and impacts of this project in the period 2002 to January 2006?		Coordinated actions in the sector expand impacts.	Verify other similar projects or actions in the field of UT training that supported or impeded impacts.	MT, UNB, CEFTRU.	- Review of Material - Interviews
What negative or positive factors have inhibited or expanded the achievement of the overall goal and specific goal between 2002/2005?		-Final Evaluation Report -Situation in Dec. 2005	-Reports and bulletins on the obstacles of execution - Opinion of interviewers	- CEFTRU/UNB operational plans and annual executive reports.	- Review of Material - Interviews
Will the original assumptions for the achievement of the overall and specific goals still be valid for the period of 2002 until Dec. 2005?	What changes of assumptions could be suggested for designing new similar projects?	-Validity of the assumptions. - Change of setting.	- Identify new assumptions. - Assess validity of assumptions used.	-CEFTRU/UNB -MT	- Interviews
Have the CEFTRU training courses carried out between 2002 and Dec. 2005 improved the capability of the trainees?	Types of training courses	- Final Evaluation Report - Situation in Dec. 2005	- Self-evaluation of trainee sample. -Examples by sample of application of new knowledge by the trainees in their own fields of work. -Evaluation by sample of trainees by CEFTRU instructors	-Annual Activity Report - CEFTRU. -Trainees	-Questionnaires - Interviews

	Have any unexpected positive or negative effects been observed in the Urban Transport sector?	<ul style="list-style-type: none"> <li>- Influences on the development of policies, rules and legislation?</li> <li>- Influences on the social and cultural sectors?</li> <li>- Influences on technological and research transfer?</li> <li>-influence on the sector of environmental protection?</li> <li>-economic influence on the target population?</li> </ul>	<ul style="list-style-type: none"> <li>- Final Evaluation Report</li> <li>- Situation in Dec. 2005</li> </ul>	-Opinion of actors with significant examples of impacts.	CEFTRU Regulatory Agency MT Sector representative associations.	<ul style="list-style-type: none"> <li>-Review of material</li> <li>- Interviews</li> </ul>
	Mention at least two assumptions that were considered priority for obtaining the impacts of the project in the period of 2002 to Dec. 2005.	<ul style="list-style-type: none"> <li>- political</li> <li>- economic</li> <li>- behavioral</li> <li>- legal</li> </ul>	<ul style="list-style-type: none"> <li>- Final Evaluation Report</li> <li>- Situation in Dec. 2005</li> </ul>	- Comparison of assumptions frequency index to the success of projects started by CEFTRU after 2002.	-CEFTRU/UNB -MT	<ul style="list-style-type: none"> <li>- Interviews</li> </ul>
Sustainability	Would international cooperation be needed to increase CEFTRU's reinforcement for the next 5 years?	What are the reasons/motives for requiring new support of international cooperation?	<ul style="list-style-type: none"> <li>- Final Evaluation Report</li> <li>- Situation in Dec. 2005</li> </ul>	- Comparison with other similar projects in the training.	- CEFTRU/UNB, MT.	<ul style="list-style-type: none"> <li>- Interviews</li> </ul>
	What actions and factors held, until Dec. 2005, the continuity of the project's goals and the maintenance or expansion of the results achieved in 2002?		<ul style="list-style-type: none"> <li>-Actions implemented between 2002 and Dec. 2005</li> <li>- Actions to be implemented between 2007 and 2010.</li> </ul>	- Comparison with other cooperation projects of CEFTRU and/or UT, identifying evolution factors of the sector.	- Opinion of actors of the UT training field.	<ul style="list-style-type: none"> <li>- Interviews</li> </ul>

	Have any efforts been made to disseminate the capacity gained through the experience in the north, north-east and mid-west regions to other parts of the country as well as foreign countries?	-What actions have been implemented to disseminate this initiative? -If the execution is proved difficult: -what actions would be necessary to execute them? -what is the estimated cost? -would external support be required: technical, administrative and/or financial?	- Final Evaluation Report - Situation Dec. 2005	-Comparison with other similar projects;	- Opinion of actors - CEFTRU/UNB	- Interviews - Review of material
	Are the management, financial, legal and human resources conditions appropriate to give continuity to the project from 2002 to Dec. 2005, allowing the achievement of intermediate and long term impacts?		- Final Evaluation Report - Situation in Dec. 2005	-Organizational and functional structure. - Renewal of teaching contracts of researchers and lecturers between 2002/2005 and for the next 5 years. - Monitoring and assessment system of the training -Renewal of contracts with the same institutions for research and development fields/areas. - New contracts with new institutions;	-CEFTRU	- Review of material - Financial and technical coordination (Multi-year budget) - Interviews
Sustainability (risks)	Has UnB taken over the ownership of the project?	- Has the CEFTRU training been scheduled in the UnB activity calendar? -Could a national campaign be organized to disseminate this training experience?	-The conditions for CEFTRU's operation and sustainability were secured.	- 2002/2005 - Agreements implemented in 2002/2005 and perspectives.	-UNB -Ministry of Cities - National Transportation Agency	- Review of Material - Interviews

	<p>Could the prospect of national, state and municipal elections jeopardize the continuity of the Project?</p>	<p>-What would the degree of risk of breaking the continuity to the project, with loss of expected long term impacts in the training area?</p>	<p>-Lessons learnt through other UT projects implemented CEFTRU/UNB.</p>	<p>- Opinion of Project's actors.</p>	<p>- Perception of public and private actors in the UT field.</p>	<p>Interviews</p>
	<p>What is the sustainability of CEFTRU to continue operating in the next five years? What recommendations could be made with regard to regulations, statutes, composition and frequency of the courses?</p>	<p>In case of strong possibility of discontinuing operation, what suggestions and recommendations could be made to secure continuity? Would the return of international experts be necessary?</p>	<p>Final Evaluation Report  - Perception of actors (% yes – reasons)</p>	<p>- Identification of risk factors and degree of discontinuity in the next five years.</p>	<p>- Perception of public and private actors in the UT field.</p>	<p>- Review of material. - Interviews</p>
	<p>What are the areas directly or indirectly institutionally strengthened by the Project in the period of 2002/2005? Also indicate whether the strengthening was felt at national, regional and/or local level of influence.</p>	<ul style="list-style-type: none"> <li>- Legal and regulatory framework</li> <li>- Procedures, manuals, operational guides.</li> <li>- Technical Capacity <ul style="list-style-type: none"> <li>▪ High management</li> <li>▪ Mid-management</li> <li>▪ Of information systems</li> </ul> </li> <li>- Customer service</li> <li>- Functional and organizational structure</li> <li>- Planning</li> <li>- Budget/financial management</li> <li>- Coordination <ul style="list-style-type: none"> <li>▪ intra/inter-sectoral</li> <li>▪ intra/inter-organizations</li> </ul> </li> <li>- RH training</li> <li>- Acquisitions</li> <li>- Rendering of accounts</li> </ul>	<p>- Final Evaluation Report</p>	<p>- Situation in 2002  - Situation in Dec. 2005.</p>	<p>- Diagnosis of the Centre - Annual monitoring of activities -- CFTRU - 2002/2005 Activity Report</p>	<p>- Review of material  - Interviews</p>





	<p>From what is exposed in this project, indicate lessons learned to support the Project</p> <p>- From 2002 to 2005</p>	<ul style="list-style-type: none"> <li>- Corrective measures adopted by CEFTRU in the implementation.</li> <li>- Alternative measures for future training projects to be supported by JICA (design and implementation)</li> </ul>	<p>-Verify CEFTRU's experience in management and proposing solutions to problems or difficulties in the sustainability of the project after 2002 until Dec. 2005.</p>	<ul style="list-style-type: none"> <li>- Staff opinion</li> <li>- Survey of corrective actions (implemented or not)</li> <li>- Discussion of alternative measures for the next five ye</li> </ul>	<p>- CEFTRU / JICA</p>	<ul style="list-style-type: none"> <li>- Review of material</li> <li>- Interviews</li> </ul>
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### ACHIEVEMENTS OF PROJECT 2002-2005

Level of PDM		Indicators in PDM	Data/Info necessary	Means of verification	Achievements	Evaluation comments
<b>Overall goal</b>	(By the year 2007- 5 years after the end of Project Period).. <b>Capability of personnel engaged in planning, management, operation and education of urban transport is improved through the training provided by CEFTRU.</b>	1: Considerable number of trainees successfully complete training.(more than 300 trainees per year are anticipated to complete all courses including "Especialização")	Number of trainees completed trainings during the period 2002-2005.	Record of training courses (indicating title, type, period, number of participant, and place of course)	3972 trainees from 2002-2005; 3 types of specialization courses with 115 participants; 14 types of training courses with 3857 participants from 1800 local transport agencies . The training courses were executed in 58 different municipalities from 5 regions of Brazil	<b>Achieved.</b> More than 300 trainees per year completed all courses including Especialização. Around of 4000 trainees completed their training courses from 2002-2005.
		2. Trainees obtain qualification/record on achievement of satisfactory level of learning by instructors at the time of training completion.	Number of trainees obtain certificates of satisfactory level of learning in the reports of trainings evaluation	Result of test to trainees, evaluation record by instructor.	All training courses were evaluated by instructors and the index of success of trainees in CEFTRU training courses is around 99%.	<b>Achieved.</b> Trainees obtained qualification records of satisfactory level of learning by evaluation test instructors.

		3. Trainees apply knowledge/skills learned from training to their work.	Meetings and questionnaires with ex-participants and relevant institutions related to training courses in transport	Interviews toward trainees concerning the effects of training.	Interviewed trainees are using their knowledge and skills learned from CEFTRU training courses to their work when local financial and technical conditions are adequate.	<b>Achieved.</b> Trainees are applying to their work their skills in planning, management, operation and education in transport learned from training courses. Improvements obtained in the urban transport were highlighted by local and national relevant institutions. An external factor impeding some trainees to use their knowledge to this work is the shortage of financial, equipments and technical resources at local level.
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Level of PDM		Indicators in PDM	Data/Info necessary	Means of verification	Achievements	Evaluation comments
<b>August 2002/2003/2004/2005</b>						
<b>Project Purpose</b>	By the end of Project period (year of 2002). <b>CEFTRU is well establish so that training of personnel engaged in planning, management, operation and education related to urban transport may be undertaken effectively.</b>	1: Facility, organization, and programs of training courses are arranged.	List of existing equipments, buildings, laboratories, instructors, materials, resources.	Reports of training courses; administrative and financial reports of CEFTRU.	CEFTRU is well financial, technical and administrative managed; there are IT equipments that could be updated or replaced for new ones; the second floor of CEFTRU is not yet concluded; some fixed equipment are not installed for training and research in road pavement and environmental issues.	<b>Achieved</b> with financial, technical and administrative well management. There are some fixed equipments that will be installed until end April 2006. The second building of CEFTRU is constructed with only the first floor been utilized for operational activities.
		2: Training courses for urban transport, including "Especialização" and the other types, are settled to be executed regularly.	Number of training courses; period of execution, cities, sillabus of each course, number of trainees.	Reports of training courses; administrative and financial reports of CEFTRU. Interviews to relevant institutions related to Transport sector.	CEFTRU is able to execute regularly at least 14 types of training courses and 4 types of specialization courses. In the period of 2002-2005 executed training courses in 58 cities, with at least professionals from 1300 different cities. 4000 trainees were improving their skills on planning, management, operation and education in urban transport and other transport areas.	<b>Achieved</b> with CEFTRU capability to implement at least 18 types of training courses and sustained capability to improve the types of training suite demanded Brazilian market for new courses.

		3: CEFTRU has good reputation as for its training courses from trainees who completed the course (or those who are in the middle of training)	Trainees and relevant organizations using CEFTRU training, research and development of activities.	Interviews with ex-trainees and relevant transport institutions.	CEFTRU has a excellent reputation as a center for training, research and project development from ex-trainees and relevant institutions related to transport sector at federal, state and local level.	<b>Achieved</b> with excellent evaluation of CEFTRU by interviewed ex-trainees and representatives of relevant institutions in Transport Sector. CEFTRU is ex-trainees first choice to make new training courses in Transport.
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### ACTIVITY ANNUAL PLANNED 2002 - 2005

#### 1 SPECIALIZATION

2 Training course	3 Groups	4 Hours	5 Period	6 Expected Number of Participants
Specialization in Transit Education	7 1 1	420	8 <b>aug 02 – jul 03</b> mar 04 – feb 05	9 <b>40</b> 40
Specialization in Traffic Engineering	1 0 1 1 1 1	420	1 2 <b>mar 03 – fevb04</b> aug04 – jul 05	1 3 <b>40</b> 40
Specialization in Urban Transport	1 4 1 1 5 1	405	1 6 <b>aug03 – jul 04</b> aug 04 – jul 05	1 7 <b>40</b> 40
Specialization in Civil Aviation Management	1 8 1 1 9 1	375	2 0 <b>mar 03 – feb 04</b> mar 04 – feb 05	2 1 <b>18</b> 18

2 2 Total number of participants expected to the Specialization courses: 276

#### 2 3 SHORT TERM TRAINING COURSE

2 4 Training course	2 5 Groups	2 6 Hours	2 7 Period	2 8 Expected Number of Participants
<b>(ア) Infrastructure Regulation</b>	2 9 1	50	sept 02	35
	1		oct 03	35
Public Transport operation	3 0 1	88	aug 02	30
	1		jun 03	30
	1		sept 04	30

E-Logistic	3 1 1 1	80	mar 03 apr 04	50 50
I Basic of Logistics	3 2 1 1 3 3 1	60	oct 02 sept 03 aug 04	45 45 45
Professional updated on Road Pavement and Water Sanitation	3 4 1 3 5 1	90	3 6 sept 02 jun 03	3 7 35 35
Technical Training for Treatment of Critical Points in Transit Accidents	3 8 1 1 3 9 1	40	4 0 nov 02 may 03 jun 04	4 1 35 35 35
Basic Notions for Transit and Transportation	4 2 1 1 4 3 1 1	80	4 4 jun 02 4 5 apr 03 may 04 jun 05	4 6 20 20 20 20

4 7 SHORT TERM TRAINING COURSE

Education for Transit	4 8 2 4 9 2 5 0 2 5 1 2	172	5 2 jul 02 / set 02 mar 03 / ago 03 mar 04 / ago 04 mar 05 / ago 05	5 3 30 / 30 30 / 30 30 / 30 30 / 30
Capacitating of Psychology for Professional Examiner of Transit	5 4 1 1 1	120	5 5 aug – oct 02 aug – oct 03 aug – oct 04 aug – oct 05	5 6 40 40 40 40
Training for Transit Agent	5 7 2 5 8 2	152	6 0 jul 02 / sept 02 mar 03 / aug 03	6 2 40 / 40 40 / 40

	5 9 2 2		mar 04 / aug 04 6 1 mar 05 / aug 05	40 / 40 40 / 40
Instruction for Transit: Practice of Vehicle Direction	6 3 3 3 3 6 4 3 3 3 6 5 3	120	6 6 sept / oct / nov 02 apr / may / jun 03 aug / sept / oct 03 apr / may / jun 04 aug / sept / oct 04 apr / maiy/ jun 05 aug / sept / oct 05	6 7 45 / 45 / 45 45 / 45 / 45 45 / 45 / 45 45 / 45 / 45 45 / 45 / 45 45 / 45 / 45

6 8 SHORT TERM TRAINIG COURSE
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Instruction for Transit: Technical and Theory	6 9 3 2 2 2 2 2	12	7 0 Jun / oct / dec 02 may / jul 03 oct / dec 03 may / jul 04 oct / dec 04 may / jul 05 oct / dec 05	7 1 60 / 40 / 40 40 / 40 40 / 40 40 / 40 40 / 40 40 / 40
Examinator of Transit: Practice of Vehicle Direction	7 2 3 3 3 3	132	7 3 jun 02 jun 03 jun 04 jun 05	7 4 130 130 130 130

7 5 Total number of participants expected to the short-term training courses: 3.455



7 6 SEMINÁRS AND SYMPÓSIUM

International Symposium in Infrastructure of Transport and Environment –II SITRAMA	7 7 1	30	nov 04	400
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**Total number of participants expected to seminar and symposium: 400**

## **LIST OF INTERVIEWED AUTHORITIES AND PERSONNEL**

### **CEFTRU**

Prof. Jose Matsuo Shimoishi - Director  
 Prof. Yaeko Yamashita – Representative Director  
 Prof. Marcio Muniz de Farias – Road Pavement Laboratory.  
 Prof. Marilei de Oliveira Meneses - Training Courses Coordinator

### **Master Degree Course in Transport -UNB**

Prof. Paulo César Silva – Urban Transportation  
 Prof. Maria Alice P. Jacques – Urban Transportation

### **UNB**

Prof. Timothy Mulholland – Rector;

### **Ministry of Cities**

Mr. José Carlos Xavier – National Secretary of Transport and Urban Mobility  
 Mr. Alexandre de Ávila Gomide – Director of Management and Regulation of SNTMU  
 Mrs. Marcia Helena Macedo – Manager of Urban Mobility Program.

### **DENATRAN**

Mrs. Rita de Cássia Ferreira da Cunha - Executive Adviser of DENATRAN

### **ANTT**

Mr. Francisco Antonio Cavour– Substitute Director for Transport  
 Mr. Noboru Ofugi - Director

### **DETRAN/DF**

Mr. Marcelo Vinícius Granja – Director of Transit Education.  
 Mrs. Andreia Alves da Costa – Chief of Transit Public School.

### **ANPET**

Prof. Romulo Orrico – Academic Council member.

### **CEFET/GO**

Prof. Denise Ribeiro – Director

### **AGETOP/GO**

Mr. Denis B. Pereira – Executive Secretary.

### **Interplan/GO**

Mr. Manfredo Hipólito de Azevedo – Executive Adviser

### **SEST/SENAT**

Mrs. Joabete Xavier de S. Costa –Professor in Transport

### **DATATRAFFIC S.A.**

Ms. Flávia Nascimento Pureza Mello – Executive Adviser

### **SESTRAN**

Mr. Miguel Pricinote – Director

### **Goiás Logística S.A.**

Mr. Ailton S. Gasparini – Executive Adviser.

## LIST OF TRAINING COURSES 2002-2005

2002				
Title	Institution	Cities	Groups	Participants
<b>Specialization Course</b>				
Specialization in Civil Aviation	DAC / INFRAERO	Brasília	1	15
<b>SUB-TOTAL</b>			<b>1</b>	<b>15</b>
<b>Short term training course</b>				
Cap citation in Psychology for Professional Examiner of Transit	CEFTRU	Brasília	1	31
Instruction for Transit: Practice of Vehicle Direction	DETRAN/DF	Brasília	2	91
Instruction for Transit: Technical Theory	DETRAN/DF	Brasília	2	74
General Director of CFC	DETRAN/DF	Brasília	1	37
Educational Director of CFC	DETRAN/DF	Brasília	2	71
Technical Cap citation in Critical Points Treatment dor transit Accidents	Min. Transportes	Brasília	1	31
Managers of Airports	INFRAERO	Brasília	1	18
<b>SUB-TOTAL</b>			<b>10</b>	<b>353</b>
<b>TOTAL</b>			<b>11</b>	<b>368</b>
2003				
Title	Institution	Cities	Groups	Participants
<b>Specialization Course</b>				
Specialization in Education to Transit	CEFTRU	Brasília	1	22
Specialization in Civil Aviation	DAC / INFRAERO	Brasília	1	16
<b>SUB-TOTAL</b>			<b>2</b>	<b>38</b>
<b>Short term training course</b>				
SIG and data information for decision making process	CEFTRU	Brasília	1	31

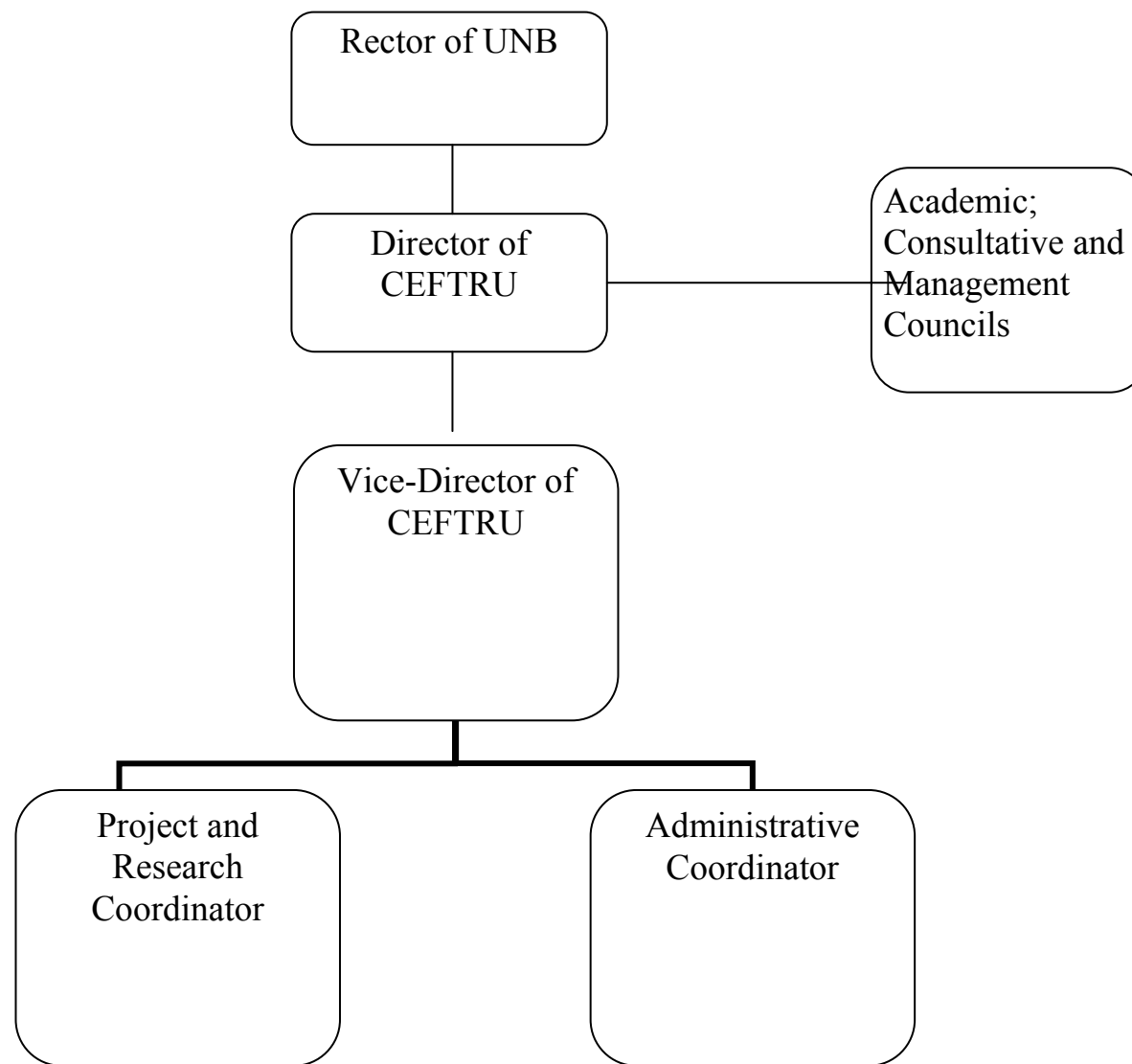
Environmental management apply to Urban Trasport	Ministério dos Transporetetes	Brasília	1	29
Basic Notions for Transit and Transportation	CEFTRU	Brasília	1	24
Instruction for Transit: Practice of Vehicle Direction	DETRAN/DF	Brasília	3	136
Instruction for Transit: Technical Theory	DETRAN/DF	Brasília	2	72
<b>SUB-TOTAL</b>			<b>8</b>	<b>292</b>
<b>TOTAL</b>			<b>10</b>	<b>330</b>
<b>2004</b>				
<b>Title</b>	<b>Institution</b>	<b>Cities</b>	<b>Groups</b>	<b>Participants</b>
<b>Specialization Course</b>				
Specialization in Road Engineering	AGETOP	Goiânia	1	47
Specialization in Civil Aviation	DAC / INFRAERO	Brasília	1	15
<b>SUB-TOTAL</b>			<b>2</b>	<b>62</b>
<b>Cursos de Extensão</b>				
Capacitation in Psychology for Professional Examiner of Transit	CEFTRU	Brasília	1	39
Public private Association to Infrastructure in Transport	CEFTRU	Brasília	2	44
Basic Technical for Transit	DENATRAN	Salvador	1	50
Basic Technical for Transit	DENATRAN	Piracicaba	1	76
Basic Technical for Transit	DENATRAN	Campo Grande	1	62
Basic Technical for Transit	DENATRAN	Cuiabá	1	62
Basic Technical for Transit	DENATRAN	Manaus	1	70
Basic Technical for Transit	DENATRAN	Macapá	1	71
Basic Technical for Transit	DENATRAN	Florianópolis	1	49
Basic Technical for Transit	DENATRAN	Vitória	1	50
Basic Technical for Transit	DENATRAN	Volta Redonda	1	71
Basic Technical for Transit	DENATRAN	Belém	1	65
<b>SUB-TOTAL</b>			<b>13</b>	<b>709</b>
<b>TOTAL</b>			<b>15</b>	<b>771</b>

2005				
Title	Institution	Cities	Groups	Participants
<b>Specialization Course</b>				
Specialization in Road Engineering	AGETOP	Goiânia	1	47
Specialization in Civil Aviation	DAC / INFRAERO	Brasília	1	15
<b>SUB-TOTAL</b>			<b>2</b>	<b>62</b>
<b>Short term training course</b>				
Capacitation in Psychology for Professional Examiner of Transit	CEFTRU	Brasília	2	80
Instruction for Transit: Practice of Vehicle Direction and technical Theory	CEFTRU	Brasília	1	27
Integrated Management for Sustainable Urban Mobility.	Ministério das Cidades	Recife	1	38
Municipality Integration to National Transit System	DENATRAN	Manaus	1	40
Municipality Integration to National Transit System	DENATRAN	Boa Vista	1	20
Municipality Integration to National Transit System	DENATRAN	Porto Velho	1	39
Municipality Integration to National Transit System	DENATRAN	Rio Branco	1	23
Municipality Integrattion to National Transit System	DENATRAN	Macapá	1	42
Municipalty Integrattion to National Transit System	DENATRAN	Curitiba	1	30
Municipalty Integrattion to National Transit System	DENATRAN	Vitória	2	57
Municipalty Integrattion to National Transit System	DENATRAN	Santarém	1	21
Municipalty Integrattion to National Transit System	DENATRAN	Palmas	2	87
Municipalty Integrattion to National Transit System	DENATRAN	Ilhéus	1	38
Municipalty Integrattion to National Transit System	DENATRAN	São Paulo	3	57
Municipalty Integrattion to National Transit System	DENATRAN	Campo Grande	1	48
Municipalty Integrattion to National Transit System	DENATRAN	Fortaleza	1	77
Municipalty Integrattion to National Transit System	DENATRAN	João Pessoa	2	40
Municipalty Integrattion to National Transit System	DENATRAN	Dourados	1	36
Municipality Integration to National Transit System	DENATRAN	Belém	1	17
Municipality Integration to National Transit System	DENATRAN	Natal	1	48

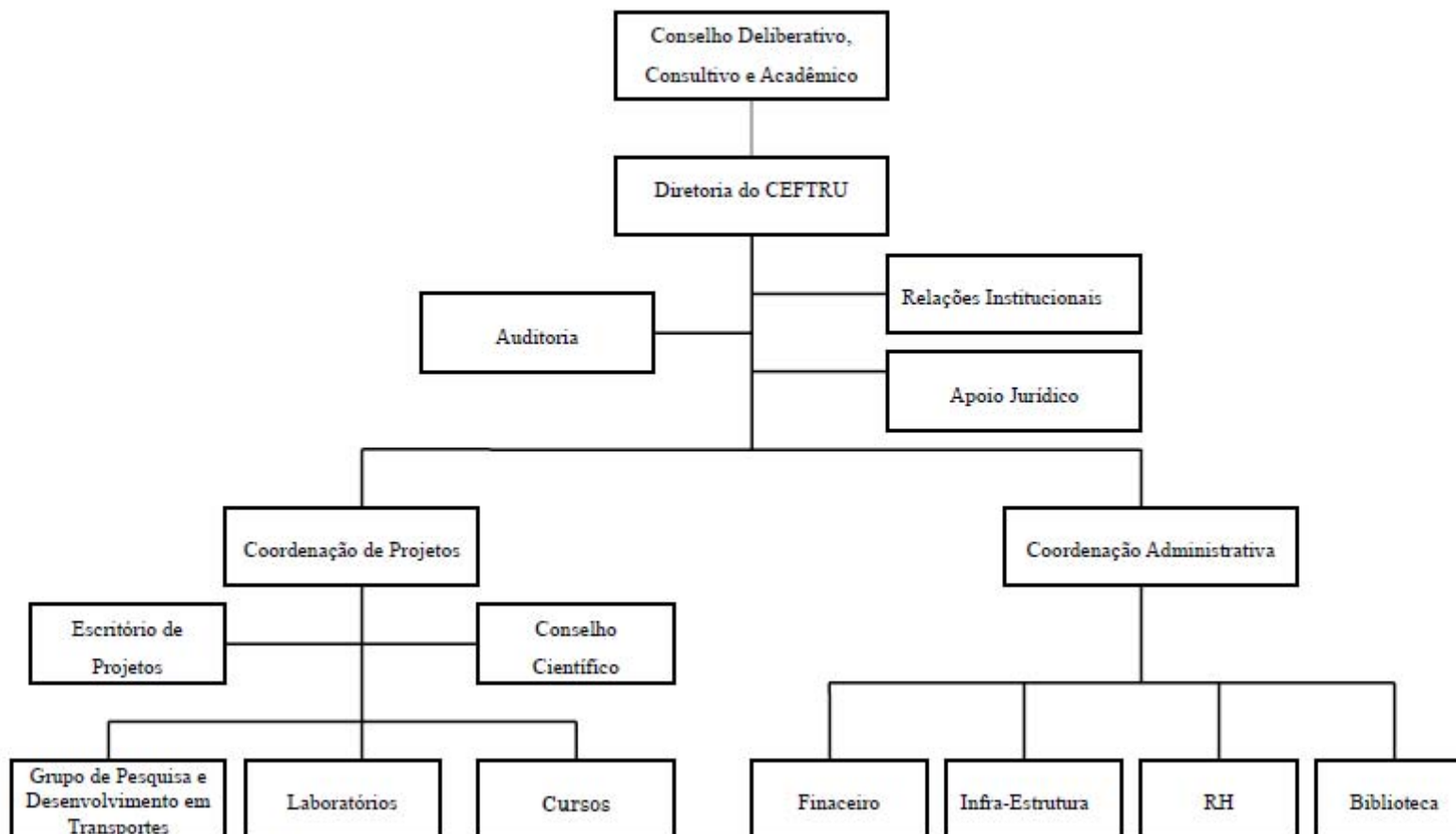
Municipality Integration to National Transit System	DENATRAN	São Luís	3	144
Municipality Integration to National Transit System	DENATRAN	Florianópolis	1	13
Municipality Integration to National Transit System	DENATRAN	Recife	2	72
Municipality Integration to National Transit System	DENATRAN	Maceió	2	41
Municipality Integration to National Transit System	DENATRAN	Campina Grande	1	27
Municipality Integration to National Transit System	DENATRAN	Imperatriz	1	38
Municipality Integration to National Transit System	DENATRAN	Teresina	2	66
Municipality Integration to National Transit System	DENATRAN	Cuiabá	2	40
Municipality Integration to National Transit System	DENATRAN	Aracaju	2	28
Municipality Integration to National Transit System	DENATRAN	Belo Horizonte	2	74
Municipality Integration to National Transit System	DENATRAN	Salvador	2	42
Municipality Integration to National Transit System	DENATRAN	Rio de Janeiro	1	17
Municipality Integration to National Transit System	DENATRAN	Mossoró	1	26
Municipality Integration to National Transit System	DENATRAN	Juazeiro do Norte	1	19
Municipality Integration to National Transit System	DENATRAN	Londrina	1	10
Municipality Integration to National Transit System	DENATRAN	Maringá	1	6
Municipality Integration to National Transit System	DENATRAN	Petrolina	1	16
Municipality Integration to National Transit System	DENATRAN	Porto Alegre	2	33
Municipality Integration to National Transit System	DENATRAN	Varginha	1	44
Municipality Integration to National Transit System	DENATRAN	Goiânia	1	33
Municipality Integration to National Transit System	DENATRAN	Montes Claros	1	7
Municipality Integration to National Transit System	DENATRAN	Chapecó	1	51
Municipality Integration to National Transit System	DENATRAN	Ribeirão Preto	1	19
Municipality Integration to National Transit System	DENATRAN	Brasília	2	34
Municipality Integration to National Transit System	DENATRAN	São José do Rio Preto	1	23
Municipality Integration to National Transit System	DENATRAN	Marília	1	22
Municipality Integration to National Transit System	DENATRAN	Juiz de Fora	1	17
Municipality Integration to National Transit System	DENATRAN	Campinas	1	37

Municipality Integration to National Transit System	DENATRAN	Governador Valadares	1	15
Municipality Integration to National Transit System	DENATRAN	Criciúma	1	10
<b>SUB-TOTAL</b>			<b>67</b>	<b>1889</b>
<b>TOTAL</b>			<b>69</b>	<b>1951</b>
<b>Activities summary</b>	<b>Groups</b>		<b>Participants</b>	
Specialization Course	7		224	
Short term training course	98		3738	
<b>TOTAL DE ATIVIDADES</b>	<b>105</b>		<b>3972</b>	

### ORGANIZATIONAL CHART OF CEFTRU







The boxes in yellow and blue are not included in the official organizational chart of CEFTRU.

## LIST OF FUNCTIONAIRES AND PRINCIPAL CONSULTANTS

<b>List of functionaries and main consultants of CEFTRU</b>	
Prof. José Matsuo -	Director
Prof. Yaeko Yamashita -	Coordinator of LaMCAT
Prof. Maria Alice P. Jacques -	Coordinator of LabTTrans
Prof. Joaquim José G. de Aragão -	Researcher
Prof. José Alex Sant'Anna -	Researcher
Prof. Paulo César M. da Silva -	Researcher
Prof. Marilei Menezes	Coordinator of Training
Prof. Adyr da Silva	Researcher
Ana Cristina Costa Barbosa	IT Chief
Bruno Hiroshi Murakami	IT Manager
Marina Marques	IT technician
Maria Mônica da Silva	Administrative Assistant
Edinalva dos Santos Silva	Administrative Assistant
Thinami Saiki	Administrative Assistant
Maria dos Praseres	Material Deposit
Marineti Baldez	Training Assistant
Bruna Souza Santana	Training Assistant
Marisa Yumi Takagi	Training Assistant
Nancy Naomi Nishino	ANTT Project
Tito Livio Pereira Queiroz e Silva	ANTT Project
Thinami Saiki	ANTT Project
João Lafuente de Araújo	Consultant
Celso Carlos Batista Gomes	Consultant
Nemésio Davóglia	Consultant
Ana Parisi	Consultant
Fernando Regis dos Reis	Consultant
Marco Antonio Vivas Motta	Consultant
Rozangela Gasparini	Consultant
Cristiano Ricardo Vaz de Melo	LaMCAT

## **LIST OF PROFESSORS OF MASTER COURSE IN TRANSPORT OF UNB**

1. Prof. Joaquim Aragão – Coordinator of the Master Course Program
2. Prof. Adelaide P. Fonseca – Urban Transport Planning and Urban cargo
3. Prof Carlos Henrique Rocha – Researcher Associate
4. Prof. José Alex Santana - Urban Cargo and Public Transport
5. Prof. José Augusto Sá Fortes – Urban Transport Planning
6. Prof. José Matsuo Shimoishi – Urban Transpot Planning
7. Prof. Maria Alice P. Jacques – Urban Transport Planning and Environment
8. Prof. Willy Gonzalez Taco – Researcher Associate
9. Paulo César Marques da Silva – Urban Transport Planning
10. Prof. Yaeko Yamashita – Urban Transport Planning and Environment

## **LIST OF PROFESSORS OF MASTER COURSE IN GEOLOGY OF UNB**

1. Prof. Marcio Muniz de Farias – Road Design
2. Prof. José Camapum de Carvalho – Road design
3. Prof. Maria das Graças Almeida – Road Design
4. Prof. José Henrique Feitosa – Road Design

### THIRD PARTY REVIEW

#### Ex-Post Evaluation on URBAN TRANSPORTATION HUMAN RESOURCES DEVELOPMENT PROJECT

##### 1 Evaluation Framework

Reference page No. of 'JICA Project Evaluation Guideline'

	(1) Time Frame of Evaluation Study	97
Viewpoint A	Necessary field survey activities such as data collection and discussion with counterparts are appropriately set within the time frame of the evaluation study. Time frame also contains preparations such as distribution of questionnaires, and is appropriate in terms of timing, length and schedule of the evaluation study.	
	(2) Study Team	107
Viewpoint	Team members are assigned on an impartial basis, and are with balanced specialty.	
Comment	<b>The team members, apparently, has only one consultant that comments all documents presented by CEFTRU, and then this answer was in function of one person.</b>	

##### 2 Date Collection and Analysis

	(1) Evaluation Questions	51
Viewpoint A	Evaluation questions are in line with evaluation purposes and set properly in the evaluation grid. General questions as to the five evaluation criteria are narrowed down to more specific sub questions to identify necessary information/data to be collected.	
	(2) Data Collection	72
Viewpoint At	Data collection is conducted based on the evaluation grid, and is sufficient for obtaining answers for evaluation questions. Additional information is collected for unexpected and newly confronted questions during the process.	
	(3) Measurement of Results	61
Viewpoint A	Achievement level of overall goal is examined on the basis of appropriate indicators, being compared with targets.	
	(4) Examination of Causal Relationship	62
Viewpoint B	The causal relationships whether the effects for the beneficiaries resulted from the project is examined either in a qualitative or quantitative manner (i.e. Are the effects at the overall goal level caused by the project intervention?)	
Comment	<b>The answers being analyzed based only able of in introduced it in the presented report. It has been present more information about the data.</b>	
	(1) Impact	57, 85-86
Viewpoint C	Perspectives for evaluation of 'Impact' (e.g. achievement level of the overall goal, causal relationships between the outcome of the project and overall goal, ripple effects) are substantially covered. Grounds for judgment are clearly stated in a convincing manner.	
	(2) Sustainability	58, 85-86
Viewpoint C	Perspective for evaluation of 'Sustainability' (e.g. probability of activities to be continued and outcomes to be produced in terms of 1) policies and systems, 2) organizational and financial aspects, 3) technical aspects, 4) Society, Culture and environment and ) are substantially covered. Grounds for judgment are clearly stated in a convincing manner.	
	(3) Factors Promoting Sustainability and Impact	85-86
Viewpoint B	Promoting factors on 'Impact' and 'Sustainability' are analyzed properly based on the information obtained through evaluation process.	

	(4) Factors Inhibiting Sustainability and Impact	85-86
Viewpoint C	Inhibiting factors on 'Impact' and 'Sustainability' are analyzed properly based on the information obtained through evaluation process.	
	(5) Recommendations	87-88
Viewpoint B	Recommendations are made thoroughly based on the information obtained through the process of data analysis and interpretation. Recommendations are specific and useful for feedbacks and follow-ups, preferably being prioritized with a time frame.	
	(6) Lessons Learned	87-88
Viewpoint B	Lessons learned are derived thoroughly based on the information obtained through the process of data analysis and interpretation. Lessons learned are convincing and useful for feedbacks, being generalized for wider applicability.	
Comment	<b>Same of the previous item.</b>	

#### 4 Structure of Report

	(1) Writing Manner	89-103
Viewpoint B	Logical structure and major points are clearly described in an easily understandable manner.	
	(2) Presentation of Primary Data and Utilization of Figures	89-103
Viewpoint D	Sufficient primary data such as on the target, contents and results of interviews and questionnaires are presented properly in the report. Figures and tables are utilized effectively to present statistics and analysis results.	
Comment	<b>The point of view can only be presented basing in introduced it in the report, then this the analyzes more deeper is prejudiced</b>	

#### 5 Overall Review based on 'Criteria for Good Evaluation'

	(1) Usefulness	13-14
Viewpoint D	In light of the effective feedback to the decision-making of the organization, clear and useful evaluation results are obtained.	
	(2) Impartiality and Independence	13-14
Viewpoint D	Evaluation is impartially conducted in a neutral setting	
	(3) Credibility	13-14
Viewpoint D	In light of the specialties of evaluators, transparency of the evaluation process and appropriateness of the criterion of judgment, evaluation information are credible.	
	(4) Participation of Partner Countries	13-14
Viewpoint D	Partner countries' stakeholders participate actively in the process of evaluation, not just provide information.	
Comment	<b>(1) The objective of evaluation was not so clear, the deeper analyzes was prejudiced. (2) It is impossible to give opinion about this item without more information detailed of the project team as of the consultants. (3) same above (4) It is impossible to comment about this item lack of documents. Although in the report it has presented as having happened the trainings inside of the expectation of the project</b>	

## 5 Overall Comment

- a) From the presented report, CEFTRU of UNB doesn't have initiative on the items over there of the trainings requested by the involved governments' institutions, CEFTRU has not been trying to offer trainings that he needed a laboratory with the donated equipments, less the of the media and the IT system.
- b) The courses were useful so that UNB could offer master's course degree, which were included as being of the project income.
- c) The unique sources were due the human formation courses for items requested by the finance entities government.
- d) The classes are modest in the only existing building, then when it is had more than of the capacities of these the visitors are put in an installation of another entity that no the one of CEFTRU.
- e) The updating of the IT equipments and of multimedia they should not be updated so soon only with the own resources and nor of UNB. CEFTRU should seek resources close to the finance Institutions of the courses so that these or another can aid in this IT updating.
- f) The support for formation of TCTP should be analyzed with reservation, since the technicians and trained teachers through the Cooperation project cannot be available, as they were when the development of the JICA's cooperation . Still it should have been verified if there is readiness of places for the development of the training, without saying that the donated equipments were not installed during the Japanese cooperation. There still needs verify the compatibility of courses, because each country that can participate has laws, habits, problems, and infrastructures different from our reality.
- g) CEFTRU should have tried other sources different that doesn't wait for UNB's sources, as many centres that want to develop in the laboratorial area seek such institutions, like FINEP among others.

*Date*

*October 20 ,2006*

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