

**MINUTES OF MEETING
BETWEEN
THE JAPANESE TERMINAL EVALUATION TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF ROMANIA
ON
JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT
ON
REDUCTION OF SEISMIC RISK FOR BUILDINGS AND STRUCTURES**

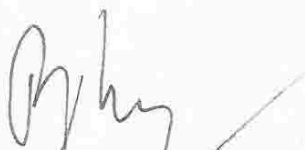
The Japanese Terminal Evaluation Team, organized and mandated by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Kenji Nagata, visited Romania from March 11 to March 21, 2007 in order to evaluate the JICA technical cooperation project on Reduction of seismic risk for buildings and structures in Romania (hereinafter referred to as "the Project").

The Joint Evaluation Team, which consists of the Romanian and Japanese Terminal Evaluation Teams, had a series of discussions, evaluated the present achievement of the Project and exchanged views on the Project activities to fulfill the Record of Discussions signed on August 1, 2002.

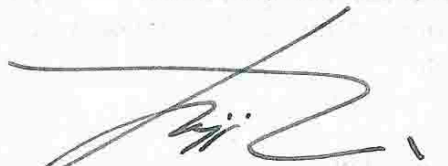
According to the evaluation report attached hereto, the Project has been implemented timely and properly according to the Record of Discussions towards the achievement of the Project Purpose.

As a result of the meeting, the undersigning parties should inform the governmental authorities involved about the matters referred to in the document attached hereto.

Bucharest, March 21, 2007



H.E. LÁSZLÓ BORBÉLY
Minister Delegate for Public Works and
Territorial Planning,
Ministry of Transports, Constructions and
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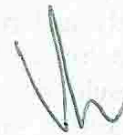
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**JOINT TERMINAL EVALUATION REPORT
ON
THE PROJECT
ON
REDUCTION OF SEISMIC RISK FOR
BUILDINGS AND STRUCTURES**

March 21, 2007

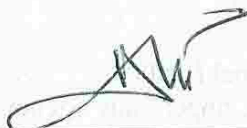


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Assoc. Prof. RADU VACAREANU
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National Center for Seismic Risk Reduction,
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Witnessed by



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Prof. DAN CONSTANTINESCU
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ABBREVIATIONS

BRI	Building Research Institute, Japan
Center	National Center for Seismic Risk Reduction, Romania
C/P	Counterpart
INCERC	National Institute for Building Research, Romania
JICA	Japan International Cooperation Agency, Japan
MLIT	Ministry of Land, Infrastructure and Transport, Japan
MLPTL	Ministry of Public Works, Transports and Housing, Romania
MLPAT	Ministry of Public Works and Territorial Planning, Romania
MTCT	Ministry of Transports, Constructions and Tourism, Romania
NILIM	National Institute for Land and Infrastructure Management, Japan
NCSRR	National Center for Seismic Risk Reduction, Romania
ODA	Official Development Assistance
PDM	Project Design Matrix
The Project	The Project on Reduction of seismic risk for buildings and structures in Romania
UN	United Nations
UTCB	Technical University of Civil Engineering, Bucharest, Romania



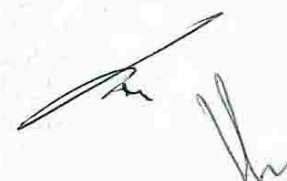
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1. INTRODUCTION

1-1 Preface

The Project started in October 2002 and will be completed in September 2007. The Japanese Terminal Evaluation Team (hereinafter referred to as “the Japanese Team”) was dispatched by JICA and visited Romania from March 11 to March 21, 2007 to evaluate the achievements of the Project. The evaluation has been undertaken jointly by the Romanian Team and the Japanese Team.

1-2 Purposes of Evaluation

The purposes of the evaluation were as follows:

- 1) To grasp the inputs of Romanian and Japanese sides to the Project and summarize the Achievement of the Plan of Operation (hereinafter referred to as “PO”) of the Project which is shown in Annex 2.
- 2) To execute a comprehensive evaluation on the achievements of the Project from the viewpoint of five-criteria evaluation (explained later in this document).
- 3) To make recommendations to the Project on its future operations and draw out lessons from the Project for the same or similar fields of technical cooperation.

1-3 Schedule of the Joint Terminal Evaluation

Date	Schedule
March, 12 (Mon)	Data collection
13(Tue)	Data collection
14(Wed)	Data collection
15(Thu)	Data analysis
16(Fri)	Data analysis
17 (Sat)	Data Compilation
18 (Sun)	Data Compilation
19(Mon)	Evaluation on the achievements of the Project
20(Tue)	Discussion on recommendations and lessons
21(Wed)	Discussion and Sign on the Minutes of Meetings (M/M)

1-4 Members of the Joint Evaluation Team

1-4-1 The Romanian Team members

- Leader Dr. Radu Vacareanu, Director, NCSRR
- Member Dr. Dan Zamfirescu, Acting Head of Division I, NCSRR
- Member Dr. Alexandru Aldea, Head of Division II, NCSRR
- Member Dr. Cristian Arion, Head of Division III, NCSRR
- Member Dr. Emil-Sever Georgescu, Head of Division IV, NCSRR

1-4-2 The Japanese Team members

- Leader Mr. Kenji Nagata, JICA
- Advisor Dr. Isao Nishiyama, NILIM/MLIT
- Member Mr. Kenta Ono, JICA
- Member Ms. Akemi Serizawa, Global Link Management, Inc.

1-5 Methodology of Evaluation

The evaluation study was conducted by the Joint Evaluation Team in accordance with the JICA Project Cycle Management method which consists of following three parts;

- 1) Verification of the project performance comparing the actual results of the Project with the project design summarized in the Project Design Matrix (PDM) agreed on March 17, 2005 shown in Annex 1.
- 2) Value judgment of the Project from the viewpoints of the five evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability.
- 3) Recommendations to the Project on its future and lessons for the planning and implementation of other projects.

The following materials were used for the evaluation: the Record of Discussions of August 1, 2002, PO shown in Annex 2, a series of minutes of discussions, the reports made by the Project and the results of meetings, interviews, questionnaire surveys and observations made by the Japanese Team during its stay in Romania.

1-6 Criteria of Evaluation

1) Relevance

Relevance of the Project is reviewed by the validity of the Project Purpose and the Overall Goal in connection with the development policy of the Government of Romania and Japanese aid policy.

2) Effectiveness

Effectiveness is assessed by examining the extent to which the Project has achieved its purpose, and clarifying the relationship between that purpose and outputs.

3) Efficiency

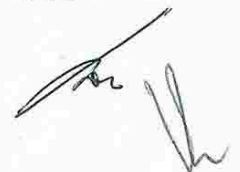
Efficiency of the Project implementation is analyzed with emphasis on the relationship between outputs and inputs in terms of timing, quality and quantity.

4) Impact

Impact of the Project is assessed by either positive or negative influence caused by the Project.

5) Sustainability

Sustainability of the Project is assessed in terms of organizational, financial and technical aspects by examining to what extent the achievements of the Project to be sustained or maintained after the Project's completion.



2. BACKGROUND AND SUMMARY OF THE PROJECT

2-1 Background of the Project

Romania is a country in Europe that is notorious for earthquakes. In its history it has often been damaged by great earthquakes, of which damage has concentrated in particular at the capital city, Bucharest.

On March 4, 1977, a subcrustal earthquake of moment magnitude 7.5 occurred in Vrancea County. At that time, most of the damage was concentrated in Bucharest. It was recorded that 1,578 people (1,424 people in Bucharest) were killed and the cost of damage was 2 billion dollars (2/3 of that in Bucharest). Moreover, 1.4 billion dollars of this sum, which was 70 percent of the total loss, were caused by building collapse.

Seismologists forecast that another earthquake of the comparable magnitude as the great earthquake of 1977 will occur in the near future, based on the analysis of the recurrence period. The Government of Romania considers it important to retrofit fragile buildings that might collapse in Bucharest due to the predicted earthquake. If the recent action for retrofitting the buildings by the Government of Romania is looked at, buildings were classified in to four categories (I- IV) according to the seismic risk level, and 122 buildings in Bucharest were recognized as Class I (most susceptible to be damaged by earthquake). After seeing the results, Ministry of Public Works, Transports and Housing (MLPTL)¹ declared its intention to gradually improve the retrofit techniques in Romania. Also, as the basic data for grounding proper seismic design have not been accumulated/ analyzed in depth, the appropriate seismic design method for retrofitting is being developed.

In August 1998, at the initiative of UTCB, the Government of Romania through MLPAT² requested the Government of Japan to dispatch some experts in earthquake engineering. Then the several schemes of cooperation, such as exchange of experts, etc. has been made, and on August 1, 2002, the Record of Discussions were signed between MLPTL of Romania and JICA, and the Project on the Reduction of Seismic Risk for Buildings and Structures started from October 1, 2002 with the planned period of 5 years until September 30, 2007.

2-2 Summary of the Project

The latest summary of the Project as written in the Minutes of Meetings (M/M) signed on March 17, 2005, which modified original design of the Project agreed in the Record of Discussions (R/D) on August 1, 2002 is as follows;

1) Overall Goal

Measures against earthquake-induced disasters in Romania are strengthened.

2) Project Purpose

Improvement and dissemination of technology for reducing building collapse in case of

¹ The ministries were reorganized, and MLPTL now becomes Ministry of Transport, Construction and Tourism (MTCT).

² MLPAT reorganized to MLPTL in 2001.

great earthquake are achieved.

3) Outputs

1. Effective and low-cost retrofit techniques are developed by Center and acquired by structural engineers.
2. Regulations/ codes concerning seismic issues for both new buildings and existing ones are improved by MTCT and Center.
3. Post-earthquake evaluation techniques of the damaged buildings are developed by Center and acquired by structural engineers.
4. Disaster prevention education for the citizens is improved by Center.

4) Activities (as referred in the PDM: Annex1)

2-3 Plan of Operation

The PO is shown in Annex 2 and it has been revised according to the result of the Mid-term evaluation of the Project, and is being implemented thereby.



3. ACHIEVEMENT OF THE PROJECT

3-1 Inputs

The Joint Evaluation Team confirmed that the inputs have been provided appropriately on the whole in line with the plan of the Project. The details of the inputs are shown in Annex 3-A.

3-1-1 Inputs from the Romanian side

(1) Counterpart personnel assigned for the Project

A total of thirty-nine (39) staff has been assigned since the Project started. Currently there are twenty-eight (28) members, of which 12 are full-time and 16 are part-time. 11 staff members resigned so far. Out of 31 positions approved, 20 positions (full 12 + part-time 16x50%) were filled as of March 2007.

(2) Provision of the project office

The Project has two sites in INCERC and UTCB. The project staff members have offices either in INCERC or in UTCB according to their work content and/or original organizations. The main office was provided by the Government of Romania at the INCERC site. UTCB provided the Project with premises to install some parts of equipment without charge, including utilities.

(3) Budget

The Romanian side has contributed 2,265 thousands RON (approx. 0.61 million Euros) in total between 2002 and 2006 into the budget of the Center.

3-1-2 Inputs from the Japanese side

Total contribution from JICA was around US\$ 7 million.

(1) Long-term experts

Seven (7) long-term experts were assigned to the Project. Their technical functions in the Project were earthquake observation and soil testing (1), seismic retrofitting and design (2), seismic retrofitting (2), and project coordinator (2). Three of them also assumed the role of the Chief Advisor.

(2) Short-term experts

As of March 2007, the Project received a total of thirty-seven (37) short-term experts in various technical areas.

(3) Counterpart training

A total of twenty-nine (29) counterparts participated in training courses.

(4) Provision of Equipment

The equipment procured by the Japanese side amounted to JPY137,039 thousand (approx. US\$ 1.2 million*) plus US\$258,000.

(5) Project management cost

The Project management cost since 2002 amounted to JPY44,940 thousand (approx. US\$ 0.4 million*), of which JPY14,000 thousand (approx. US\$ 0.12 million*) is the budget of FY2007 and is not fixed yet.

(*Note: Amount of US\$ was calculated using the exchange rate of US\$1=JPY115)

3-2 Activities

The Joint Evaluation Team confirmed the progress of the Activities according to the PDM. The details are shown in Annex 3-B.

It was confirmed that the Activities have been carried out as planned on the whole.

3-3 Outputs

The Joint Evaluation Team confirmed that all Outputs of the Project are highly likely to be produced by the end of the Project. It should be noted that most technical manuals and Codes, which are the key Outputs of the Project, will be completed in its final stage, therefore they were still drafts when the Terminal Evaluation was conducted. The Project already held seminars to introduce structural engineers the new techniques developed by the Center. After the final versions of the manuals and Codes are published, additional technical seminars are also to be held.

While each of the four Outputs in the PDM represents a technical area, the Outputs can also be classified according to the forms such as manuals, Codes and seminars. For easier grasp of the composition of the Project, this report first presents the Outputs in the latter manner, and evaluation of the Outputs follows based on the original grouping shown in the PDM.

3-3-1 Achievement of Outputs, by form of the products

(1) Manuals/Codes

The Project aims to publish at least five manuals and also to have these of at least three technical areas endorsed by the Government of Romania. As seen in the table below, most manuals were still draft versions, but it is highly likely that they are all finalized by the end of the Project.

Technical area	Title	Issued	Project indicators		Item (*)
Retrofitting (Div1+3)	Draft manual for seismic retrofitting of reinforced concrete buildings (1st draft)	3/2006	Output 1-1	Manual on retrofitting techniques	M-1
			Output 2-1-(2)	Manual on seismic retrofitting design	
	P100-3/2006 Code for the Assessment and design of retrofitting works for existing buildings, vulnerable to earthquakes Vol.2 - Retrofitting (1st draft)	11/2006	Output 1-1	Manual on retrofitting techniques	C-2
			Output 2-1-(2)	Manual on seismic retrofitting design	
Project Purpose 2-(2)	Code of retrofitting				
Evaluation (Div1+3)	Draft manual for seismic evaluation of reinforced concrete buildings (1st draft)	3/2007	Output 2-1-(1)	Manual of seismic evaluation	M-2

	P100-3/2006 Code for the Assessment and design of retrofitting works for existing buildings, vulnerable to earthquakes Vol.1 - Assessment (1st draft)	11/2006	Output 2-1-(1)	Manual of seismic evaluation	C-1
			Project Purpose 2-(1)	Code of seismic evaluation	
Post-earthquake inspection (Div1+3+4)	Methodology regarding the emergency investigation of post seismic safety of buildings and establishing frame solutions for intervention	11/2006	Output 3-1	Manual on post-earthquake evaluation * This Methodology was already endorsed by MTCT.	M-5
Seismic design of new buildings (Div1+2+3)	P100-1/2006 Seismic design Code (Completed)	7/2006	Output 2-1-(4)	Manual on seismic design of new buildings	C-3 M-4
			Project Purpose 2-(3)	Manual of input design ground motion	
Input ground motion (Div2+3)	Manual for Design Input Earthquake Ground Motion (2nd draft)	3/2007	Output 2-1-(3)	Manual on input design ground motion.	M-3

(Note: The Item numbers were given by the Joint Evaluation Team only to identify the manuals and Codes to relate them with the Indicators of the Project.)

(2) Seminars

Seminars were held not only in Bucharest but also in other cities.

a. Number of seminars

It is likely that the number of seminars reaches the target number by the end of the Project, although it has not attained yet the target in some technical areas. The main reason of this gap is that the Project is going to hold more seminars after the manuals and Codes are finalized, which will be almost in the end of the Project period. Twenty-nine (29) seminars were held so far, of which twenty-one (21) were for engineers, seven (7) were for citizens and one (1) contained separate sessions for each type of audiences. The number of seminars that each technical theme was taken up was as follows: effective and low-cost retrofit techniques (8), earthquake resistant design (18), and post-earthquake evaluation techniques (3). Data were not collected in three (3) seminars.

b. Number of participants

Similarly, the number of seminar participants is likely to reach the target number by the end of the Project after the manuals and Codes are finalized, although it has not attained yet the target in some technical areas. It should be noted that some participants were counted more than once for different technical areas when a seminar had two or more themes. Therefore, the total of the number of participants in each theme exceeds the actual total number of participants.

c. Number of satisfied participants

According to the questionnaire surveys held in the seminars so far, more than 80% of the participants were “satisfied”, which attained the target of the Project. The Project counted the number of respondents who marked “understood” or “understood very well” as “satisfied”.

Similarly, for citizens and school children, the Project counted the number of respondents who marked “understood” the contents.

3-3-2 Achievement of the Outputs, by PDM’s classification

Output 1: “Effective and low-cost retrofit techniques are developed by Center and acquired by structural engineers”.

(Note: At the start of the Terminal Evaluation, it was agreed with the Project that the term “acquired” meant “got acquainted” for structural engineers who attended seminars. For the Project counterparts, “acquired” meant “attained the level that allows them to perform the Project activities independently”.)

This Output is highly likely to be achieved by the end of the Project. A manual to introduce the new retrofit techniques has been developed and is to be finalized. Seminars will be organized after the manual is published, and the number of participants will also reach the target. It was confirmed that the participants were satisfied with the contents of the seminars held so far, which proves sufficient quality of the techniques developed by the Center.

Verifiable indicators	Achievement
1-1. Not less than 1 technical manual on <u>effective and low-cost retrofit techniques</u> are developed (1 manual including retrofitting works)	• Draft manual for seismic retrofitting of reinforced concrete buildings (1st draft) (3/2006) => <i>will be finalized by the end of the Project.</i>
1-2. Not less than 8 seminars on effective and low-cost retrofit techniques are held and not less than 400 structural engineers participate.	As of March 2007, this technical theme was taken up in 8 seminars, in which 263 structural engineers participated.
1-3. Not less than 80% of participants to the seminars are satisfied.	85.9% of the respondents to the questionnaire answered “understood” or “understood very well” the content of the seminars.

Output 2: “Regulations/codes concerning seismic issues for both new buildings and existing ones are improved by MTCT and Center”.

This Output is highly likely to be achieved by the end of the Project. A Code on seismic design was developed by UTCB with technical contribution by the Center. Other three manuals on seismic evaluation of existing buildings, seismic retrofitting design and input design earthquake ground motion are being finalized. The numbers of related seminars and participants have already reached the target. It was confirmed that the participants were satisfied with the contents of the seminars held so far, which proves sufficient quality of the techniques developed by the Center.

Verifiable indicators	Achievement
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2-1. Not less than 4 technical manuals on <u>earthquake resistant design</u> (new building or retrofitting) are newly developed or improved by Center (4 manuals include: (1) seismic evaluation of existing buildings (2) seismic retrofitting design (3) input design earthquake ground motion (4) seismic design for new building)	<ul style="list-style-type: none"> • Draft manual for seismic evaluation of reinforced concrete buildings (1st draft) (3/2007) => <i>will be finalized by the end of the Project.</i> • Draft manual for seismic retrofitting of reinforced concrete buildings (1st draft) (3/2006) - shared with the Output 1-1. => <i>will be finalized by the end of the Project.</i> • Manual for Design Input Earthquake Ground Motion (2nd draft) (3/2007) => <i>will be finalized by the end of the Project.</i> • P100-1/2006 Seismic design Code (Completed in July 2006. It was developed by UTCB with technical contributions by the Project)
2-2. Not less than 4 seminars on manuals are held and not less than 200 structural engineers participate.	As of March 2007, this technical theme was taken up in 18 seminars, in which 551 structural engineers participated.
2-3. Not less than 80% of participants to the seminar are satisfied.	86.1% of the respondents to the questionnaire answered “understood” or “understood very well” the content of the seminars.

Output 3: “Post-earthquake evaluation techniques of the damaged buildings are developed by Center and acquired by structural engineers”.

This Output is highly likely to be achieved by the end of the Project. A manual regarding post-earthquake evaluation was already completed and endorsed by MTCT. The numbers of related seminars and the participants has not attained the target yet, but they will reach the target numbers when more seminars will be organized after the manual is published. It was confirmed that the participants were satisfied with the contents of the seminars held so far, which proves sufficient quality of the techniques developed by the Center.

Verifiable indicators	Achievement
3-1. Not less than 1 technical manual on <u>post-earthquake evaluation techniques</u> of the damaged buildings are developed (manual shall include the following subjects; (1) quick inspection of damage (2) damage degree evaluation)	<ul style="list-style-type: none"> • A manual-“Methodology regarding the emergency investigation of post seismic safety of buildings and establishing frame solutions for intervention” (2nd draft) (11/2006) => <i>It was already completed and endorsed by MTCT.</i>
3-2. Not less than 5 seminars on post-earthquake evaluation techniques of the damaged buildings are held and not less than 250 structural engineers participate.	As of March 2007, this technical theme was taken up in 3 seminars, in which 31 structural engineers participated.
3-3. Not less than 80% of participants to the seminar are satisfied.	93.8% of the respondents to the questionnaire answered “understood” or “understood very well” the content of the seminars.

Output 4: “Disaster prevention education for the citizens is improved by Center.”

This Output is highly likely to be achieved by the end of the Project. The numbers of the seminars for citizens (including school children) and participants have already attained the target, and the quality of the seminars was confirmed by the result of the questionnaire surveys.

An educational material for school children on disaster preparedness was already published. Another publication on “legal incentives for retrofitting” is being developed. Questionnaire survey on these publications is yet to be conducted.

Verifiable indicators	Achievement
4-1. Not less than 5 seminars on earthquake disaster prevention are held and not less than 250 participants participate.	As of March 2007, 7 seminars were held for citizens and school children, in which 643 participated.
4-2. Not less than 80% of participants to the seminar are satisfied.	90.2% of the respondents to the questionnaire answered they “understood” the content of the seminars.
4-3. Not less than 2 printed matters on earthquake disaster prevention are published by Center (2 printed matters; (1) legal incentives for retrofitting (2) disaster preparedness)	(1) A publication for citizens on legal incentives for retrofitting is being drafted and will be completed in April 2007. (2) “Educatia si protectia elevilor in caz de cutremur” was published in 2006: A material for school children, consisting of four versions for particular ages/grades.
4-4. Not less than 80% of citizens who read the printed matters are satisfied.	(1) Publication on “legal incentives for retrofitting” for citizens: questionnaire survey will be carried out when it is published. (2) Questionnaire survey on the material for school children will be carried out by the end of the Project.

Output 5: “Conditions necessary to apply the technologies developed by the Center have been set up”.

Activities 5-1 and 5-2 were added in the Mid-term evaluation in March 2005, but the corresponding Outputs were not. In order to streamline the logic of PDM, Output 5 was added after the discussion with the Project in the Terminal Evaluation.

This Output has already been achieved. The basic retrofitting planning and detailed design were already completed. The Project is working on the retrofitting working drawings at the moment. It is not sure whether the retrofitting work starts before the project ends because it involves long administrative process, which is beyond the control of the Project/Center.

Activities	Achievement
5-1. To select the target building for introducing new technology.	Two buildings were selected. (1) A Class I building (in the list) built before 1940 (2) A building built after 1940, which has a typical structure of that period
5-2. To make proposals for retrofitting the target building.	The technical committee of MTCT approved basic retrofitting plans (basic planning and detailed design). Working drawings for retrofitting are under preparation.

	Bidding and construction will follow after explanation to residents.
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3-4 Project Purpose: “Improvement and dissemination of technology for reducing building collapse in case of great earthquakes are achieved”.

(Note: At the start of the Terminal Evaluation, it was agreed with the Project that “dissemination” meant “the technology is introduced to structural engineers so that it becomes available.”)

The Project Purpose is highly likely to be achieved by the end of the Project. The product mentioned in the first Indicator (detailed design of retrofitting of two buildings) is almost finalized. The products in the second Indicator (manuals endorsed) will also be completed by the end of the Project.

Verifiable indicators	Achievement
1 By the end of the Project period (September 30, 2007), technology introduced by Center will be incorporated in the detailed design of retrofitting for one or more buildings built before 1940 and for one or more buildings built after 1940.	Basic retrofitting design and retrofitting detailed design for the two buildings were already completed, and retrofitting design drawings and working drawings are ongoing. Bidding and construction works will be conducted after the explanation to the residents.
2 By the end of the Project period, technical manuals and guidelines for <u>seismic evaluation and retrofitting</u> as well as <u>input ground motion</u> will be endorsed by Romanian authorities.	<p>These Codes were developed by UTCB with technical contribution of the Center.</p> <ul style="list-style-type: none"> • P100-3/2006 Code for the Assessment and design of retrofitting works for existing buildings, vulnerable to earthquakes Vol.1 - Assessment (1st draft) (11/2006) => <i>will be finalized and technically endorsed by MTCT by the end of the Project.</i> • P100-3/2006 Code for the Assessment and design of retrofitting works for existing buildings, vulnerable to earthquakes Vol.2 - Retrofitting (1st draft) (11/2006) => <i>will be finalized and technically endorsed by MTCT by the end of the Project.</i> • P100-1/2006 Seismic design Code (Completed in July 2006 and endorsed on January 1, 2007 by MTCT): including a chapter of input ground motion

3-5 Implementation Process

3-5-1 Progress of activities in terms of the PDM

All activities have been carried out as planned on the whole. Some of Outputs will be completed by the very end of the Project (September 2007), following the schedule. The Joint Evaluation Team had to evaluate the achievement mainly from the estimates.

3-5-2 Transfer of technology

Transfer of technology has been made appropriately through the day-to-day activities and counterpart training. The Romanian Project members not only improved their skills and knowledge in their respective technical areas, but also developed professionalism through the Project, including initiative-taking and problem-solving

attitude. The Romanian Project members have already attained the level to perform the Project activities independently, although the Center's capacity in dissemination and public awareness raising need to be further strengthened after the Project completion. The Romanian side benefited from the Japanese technology that has a clear comparative advantage, while the Project tried to create the best mix from Japanese, European or US techniques depending on the Romanian needs.

3-5-3 Project Management

The management system within the Project was appropriate. The Director, division heads and the Japanese experts have participated actively in the management of the Project. In order to monitor the progress, they have had monthly division-heads meetings, division meetings held weekly or as needed, and all-staff meetings that were held when a Project member came back from counterpart training in Japan.

With MTCT, the Director and Japanese experts have had discussions when needed.

The last meeting of Joint Coordination Committee (JCC) was held during the Mid-term Evaluation in March 2005.

3-5-4 Ownership of the Center and Cooperation with the Romanian partner organizations

The Romanian side showed a sufficiently high level of ownership of the Project.

At the level of the Project staff, they have participated actively in the Project, although the part-time staff might have had to cope with constraints in time management between the project activities and the commitment to their original workplaces.

MTCT have respected the initiative of the Center within its scope of work.

UTCB and INCERC have been involved in the Project through collaboration in each activity and at the level of individuals (many Project members are also staff of UTCB or INCERC).

3-5-5 Support from the Advisory Committee in Japan

The Project has received appropriate support from the Advisory Committee in Japan, which consists of NILIM/MLIT, BRI and so on by dispatch of experts and provision of technical advices.

