

# パキスタン・イスラム共和国 技術教育改善プロジェクト 中間レビュー調査報告書

平成 23 年 6 月  
(2011 年)

独立行政法人国際協力機構  
人間開発部

人 間
J R
11-065

パキスタン・イスラム共和国  
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## 序 文

パキスタン・イスラム共和国（以下「パ」国）では、国家開発計画であるVision2030の下、工業化の推進に取り組んでいる。本プロジェクトサイトのパンジャブ州ラホールは、カラチに次ぐ同国第二の工業都市であり、各種エンジニアリング産業が発達し、機械、建築分野の技術者に対する需要も高く、特に労働者の作業現場と経営層をつなぐ中堅技術者の育成に対する需要が高まっています。

「パ」国の技術教育・職業訓練（Technical and Vocational Education and Training : TVET）システムは、主に連邦国家レベルの国家職業技術教育委員会（National Vocational & Technical Education Commission : NAVTEC）、州レベルの技術教育・職業訓練庁（Technical Education & Vocational Training Authority : TEVTA）、そして技術短大（Government College of Technology : GCT）や職業訓練校といったTVET実施機関という3つの階層により構成されています。本プロジェクトで対象とするレイルウェイロード技術短期大学（Government College of Technology Railway Road Lahore : GCT R.R.）は、パンジャブ州で中堅技術者育成を担う中核技術教育機関ですが、10年以上も改訂がなされていないカリキュラムに基づく教育・訓練サービスが提供されていたことや、教員の技術力や指導力が十分でなく、教材が適切に活用されておらず、実習用機材が長期にわたり更新されていない、さらには卒業生の就業支援が組織的に行われておらず、産業界との連携体制が構築されていないなど、多くの課題を抱えていました。

そのような状況の下、GCT R.R.を産業界のニーズに沿う教育を提供できるモデル校（Center of Excellence : COE）とすべく、その強化を目的とした「技術教育改善プロジェクト」の実施が「パ」国政府から日本政府に要請されました。これを受け、国際協力機構（JICA）は産業界のニーズ等も踏まえた教育・運営体制の確立のために、機械・建築の2分野を対象とした技術協力プロジェクトを2008年12月から実施しています。

本プロジェクトは、2008年12月から2013年11月までの5年間の予定で実施中ですが、今般、開始後2年半が経過したことから中間レビュー調査団を「パ」国に派遣し、協力の中間地点において「パ」国側と合同で本プロジェクトの目標達成度や成果等の達成状況を確認するとともに、プロジェクトの残り期間の課題及び今後の方向性について確認しました。本報告書は、同調査結果を取りまとめたものであり、今後のプロジェクトの展開に、さらには類似の他プロジェクトに活用されることを期待しています。

ここに、本調査にご協力をいただいた内外関係者の方々に深い感謝の意を表するとともに、プロジェクトの活動に対するより一層のご支援をお願いします。

平成23年6月

独立行政法人国際協力機構

人間開発部長 萱島 信子

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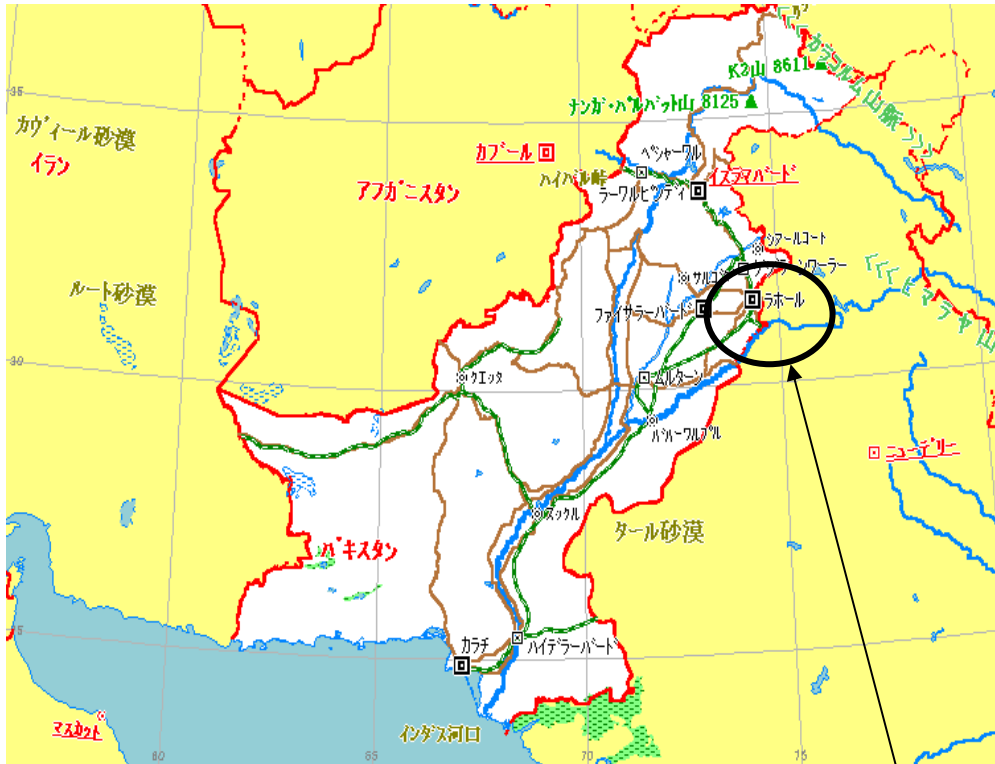
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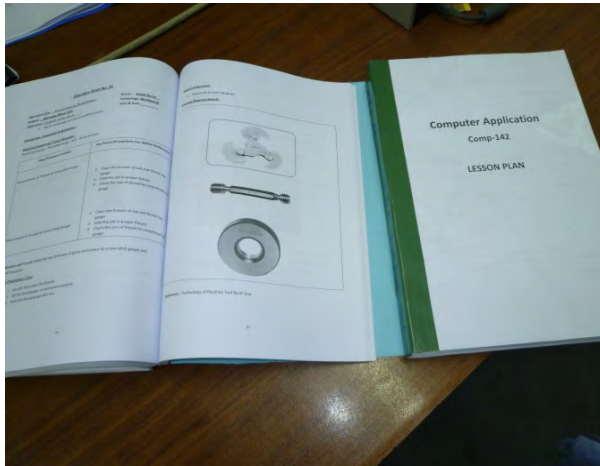
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地 図



プロジェクトサイト：  
ラホール

写 真



機械学科カリキュラム・教材



建築学科教員室



建築学科1年次女子学生インタビュー



建築学科機材



TEVTA 協議 (ミニッツ協議)



JCC 会合

## 略 語 表

略 語	欧 文	和 文
BOM	Board of Management	経営委員会
CNC	Computerized Numerical Control	コンピュータ数値制御
CEC	Curriculum Evaluation Committee	カリキュラム評価委員会
COE	Center of Excellence	先進的モデル校
COO	Chief Operating Officer	—
C/P	Counterpart	カウンターパート
CRC	Curriculum Revision Committee	カリキュラム改訂委員会
DAE	Diploma Associate of Engineering	エンジニアリング・ディプロマ
GCT	Government College of Technology	技術短期大学
GCT R.R.	Government College of Technology Railway Road Lahore	レイルウェイロード技術短期大学
GM-F&A	General Manager – Finance & Administration	—
GM-Op	General Manager – Operations	—
HOD	Head of Department	学科長
IMC	Institute Management Committee	学校運営委員会
JCC	Joint Coordinating Committee	合同調整委員会
M & E	Monitoring & Evaluation	モニタリング・評価
M/M	Minutes of Meeting	ミニッツ
MTDF	Medium Term Development Framework	中期開発枠組み
NAVTEC	National Vocational & Technical Education Commission	国家職業技術教育委員会
PD	Project Director	プロジェクト・ダイレクター
PDM	Project Design Matrix	プロジェクト・デザイン・マトリックス
PM	Project Manager	プロジェクト・マネジャー
PO	Plan of Operations	運営計画
R/D	Record of Discussions	討議議事録
Rs	Rupees	ルピー（パキスタン通貨単位）
TEVTA	Technical Education & Vocational Training Authority	（パンジャブ州）技術教育・職業訓練庁
TMC	Training Management Cycle	訓練マネジメントサイクル



略 語	欧 文	和 文
TNA	Training Needs Assessment	訓練ニーズ調査
TVET	Technical and Vocational Education and Training	技術教育・職業訓練
TWG	Technical Working Group	テクニカル・ワーキング・グループ

## 評価調査結果要約表

1. 案件の概要	
国名：パキスタン・イスラム共和国	案件名：技術教育改善プロジェクト
分野：技術教育	援助形態：技術協力プロジェクト
協力期間： 2008年12月～ 2013年11月（5年間）	相手国実施機関：パンジャブ州技術教育・職業訓練庁 （Technical Education & Vocational Training Authority： TEVTA） レイルウェイロード技術短期大学（Government College of Technology Railway Road Lahore：GCT R.R.）
	日本側協力機関：なし
	他の関連協力：GCT R.R.の施設整備・機材供与のための 無償資金協力（予定）
<p>1-1 協力の背景と概要</p> <p>パキスタン・イスラム共和国（以下「パ」国）では、国家開発計画である Vision2030 の下、工業化の推進に取り組んでいる。本プロジェクトサイトのパンジャブ州ラホールは、カラチに次ぐ同国第二の工業都市であり、各種エンジニアリング産業が発達し、機械、建築分野の技術者に対する需要も高い。特に労働者の作業現場と経営層をつなぐ中堅技術者の育成に対する需要が高まっている。</p> <p>「パ」国の技術教育・職業訓練（Technical and Vocational Education and Training：TVET）システムは、主に連邦レベルの国家職業技術教育委員会（National Vocational &amp; Technical Education Commission：NAVTEC）、州レベルの技術教育・職業訓練庁（Technical Education &amp; Vocational Training Authority：TEVTA）、そして技術短大（Government College of Technology：GCT）や職業訓練校といった TVET 実施機関という 3つの階層により構成されている。本プロジェクトで対象とするレイルウェイロード技術短期大学（Government College of Technology Railway Road Lahore：GCT R.R.）は、パンジャブ州で中堅技術者育成を担う中核技術教育機関であるが、10年以上も改訂がなされていないカリキュラムに基づく教育・訓練サービスが提供されていたことや、教員の技術力や指導力が十分でなく、教材が適切に活用されておらず、実習用機材が長期にわたり更新されていない、さらには卒業生の就業支援が組織的に行われておらず、産業界との連携体制が構築されていないなど、多くの課題を抱えていた。</p> <p>かかる状況の下、「パ」国政府から、GCT R.R.を産業界のニーズに沿う教育を提供できる先進的モデル校（Center of Excellence：COE）とすべく、その強化を目的とした「技術教育改善プロジェクト」が要請され、現在、産業界のニーズ等も踏まえた教育・運営体制の確立のために、機械・建築の2分野を対象として協力を実施している。</p>	
<p>1-2 協力内容（中間レビュー時点）</p> <p>(1) 上位目標</p> <p>産業界のニーズを踏まえた技術教育を提供するために、プロジェクト知見がパンジャブ州内の他校（機械、建築）に適用される。</p> <p>(2) プロジェクト目標</p> <p>GCT R.R.が、機械・建築分野の COE として、産業界のニーズを踏まえた技術教育を提供</p>	

できる機関となる。

### (3) 成果

- 1) 成果 1：産業界のニーズを取り入れた技術教育が提供できるよう GCT R.R.の組織体制が強化される。
- 2) 成果 2：機械・建築コースの訓練マネジメントサイクルが強化される。
- 3) 成果 3：GCT R.R.の就職支援体制が強化される。
- 4) 成果 4：GCT R.R.がプロジェクトで得た経験・知見が、GCT R.R.内の他のコースや他の TVET 機関（機械・建築）に周知される。

### 1-3 投入（中間レビュー時点）

#### (1) 日本側

- 1) 専門家派遣：累計 6 名  
派遣分野（長期専門家）：チーフアドバイザー／業務調整、機械、建築  
派遣分野（短期専門家）：訓練ニーズ調査、建築、学校運営管理
- 2) 研修員受入れ：本邦カウンターパート（C/P）研修に累計 11 名
- 3) 機材供与実績：合計 50,305,000 PKR
- 4) 現地活動費：合計 21,224,016.50 PKR

#### (2) 「パ」国側

- 1) C/P：  
主要 C/P 累計 11 名  
機械 33 名（29 名在職）、建築 13 名（10 名在職）
- 2) 専門家執務スペース
- 3) 事業運営費：合計 10,640,000 PKR（施設改修費等）

### 2. 評価調査団員の概要

調査者	団長・総括 梅宮 直樹 評価分析 荻野 有子	JICA 人間開発部高等技術教育課主任調査役 株式会社コーエイ総合研究所主任研究員
調査期間	2011 年 6 月 13～24 日	評価の種類：中間レビュー

### 3. 評価結果の概要

#### 3-1 実績の確認

##### (1) 成果

各成果の達成状況は以下のとおりである。

- 1) 成果 1：産業界のニーズを取り入れた技術教育を提供できるよう GCT R.R.の組織体制が強化される。

学生（全校 2,000 人）や供与機材のデータベース化は完了した。教員データは既存のものがある。企業等、その他の情報のデータベース化及び学校運営改善のためのデータ活用は今後の計画に含まれている。また、産学連携を目的としたワーキング・グループは、既存グループの活性化または新規グループの立ち上げが課題であり、今後は主要企業の積極的参加を促進させる必要がある。これまでの連携活動は限定的であり、GCT R.R.と産業界との連携会合も不定期・散発的なものであった。なお、広報の点ではニュースレターが 2 回発行され、学校のウェブサイトも作られている。

2) 成果2：機械・建築コースの訓練マネジメントサイクルが強化される。

プロジェクトの開始とともに、企業、卒業生等を対象に訓練ニーズ調査が実施され、調査結果に基づきカリキュラムが改訂された。エンジニアリング・ディプロマ (Diploma Associate of Engineering : DAE) コース3年分のカリキュラム改訂は、1年次から順次開始され、「改訂→評価・承認→1年間のパイロット・コース実施並びにモニタリング・評価 (Monitoring & Evaluation : M & E) →最終評価」の過程を経て行われる。1年次から3年次までは既に改訂を終え、機械については2010年より1年次改訂カリキュラムの州内他校への普及が始まっている。2年次も2011年9月より州内普及が行われる予定である。3年次は、機械・建築とも2011年9月からパイロット・コースが開始され、2012年6月には、改訂カリキュラムによる初の卒業生が送り出される予定である。このほか、シラバス、教材や試験問題の改訂も行われるとともに、施設改修・機材設置も実施され、機材目録も作成された。

マスター・トレーナーは、現在のところ機械学科で3名、建築学科で5名が訓練された。建築学科は十分であるが、機械学科では新規に改訂された科目が10科目であることから更に7名を訓練する必要がある。マスター・トレーナーによる他教員への訓練は今後の計画であり、訓練マネジメントサイクルのマニュアルも、サイクルが一巡したのちに作成される予定である。

3) 成果3：GCTの就職支援体制が強化される。

就職情報のコンピュータ化に着手したところである。改訂カリキュラムによる最初の卒業生となる現在の2年生を対象に、今夏にインターンシッププログラムを実施すべく準備が進んでいる。また、就職課が立ち上がり、これまで教員が個人的に対応していた就職相談を組織的に行うこととなった。今後、これらの活動を具体的に実施していくこととなる。就職支援に対する学生の満足度データは、活動の進展とともに収集することとなり、雇用主の満足度データはエンドライン調査で収集する予定である。

4) 成果4：GCTがプロジェクトで得た経験・知見が、GCT内の他のコースや他のTVET機関（機械・建築）に周知される。

プロジェクト後半において、訓練マネジメントサイクルが一巡した段階で、経験を共有・普及するためのセミナーを開催する計画となっている。

## (2) プロジェクト目標

プロジェクト目標：GCT R.R.が、機械・建築分野のCOEとして、産業界のニーズを踏まえた技術教育を提供できる機関となる。

プロジェクト目標の達成状況は、改訂カリキュラムの卒業生に対する企業側の評価、卒業生自身の満足度、各学年末試験の合格率によって測られることから、(卒業生未輩出の現段階では)成否の判断は時期尚早である。なお、本調査において在校生から聞き取りを行った結果、改訂カリキュラムに基づく授業に対する生徒の評価は全般的に高い。また、試験合格率については過去3年分のデータがあることから、終了時評価時点で比較を行うこととなる。

## (3) 上位目標

上位目標：産業界のニーズを踏まえた技術教育を提供するためにプロジェクトの知見が、パンジャブ州内の他校（機械、建築）に適用される。

既に1年次のカリキュラム（機械）が他校に普及されている他、TEVTAでは予算措置を含む

普及のための具体的計画の策定に着手したところであることから、上位目標達成の見込みは高い。建築学科は GCT R.R. のみに設置されているが、共通する基本科目をもつ他校の土木学科への改訂カリキュラムの一部導入や、学科の新規設立などの可能性もある。また、GCT 初の女子学生受入経験の普及により、ジェンダーの観点からもポジティブなインパクトが期待される。

### 3-2 評価 5 項目に基づく評価結果

#### (1) 妥当性：「高い」

中堅技術者に対する産業界からのニーズは引き続き高く、「パ」国政府及びパンジャブ州政府の政策（MTDF、Vision 2030、Skilling Pakistan など）や、日本の ODA 政策（国別援助計画）にも合致している。GCT R.R. は施設の老朽化や敷地の狭さといった問題はあるが、豊富な教員を擁し、地理的にも中心部に位置すること、アクセスの良い場所であることなどから、対象校の選定も妥当である。NAVTEC のドナー調整を経ているため、他ドナーとの重複もない。同校には、別途無償資金協力による施設建設・機材供与が予定されており、本プロジェクトとの相乗効果が期待される。

(2) 有効性：「プロジェクト後半においても計画通りに活動が実施されれば、潜在的に高い」  
計画どおりに活動が実施されれば、プロジェクト目標の達成見込みは高く、成果からプロジェクト目標達成に至るロジックも適切である。外部条件のひとつである「訓練された教員が異動しない」について、TEVTA では JICA 側の合意なしに異動は行わない方針であり、担保される見通しである。

#### (3) 効率性：「高い」

成果がおおむね計画どおり達成されており、日本側、「パ」国側からの投入は、量・質・タイミングの各点でおおむね適切であった。

(4) インパクト：「引き続き TEVTA が成果の維持・普及に尽力するのであれば、潜在的に高い」

既述のとおり、既に 1 年次カリキュラムの普及が開始され、予算措置も含めた計画策定に着手するなど、普及に向けた取り組みが始まっている。また、女子学生の入学によりジェンダーの観点からもポジティブなインパクトが期待できる。

(5) 持続性：「引き続き技術的なキャパシティが強化され、かつ TEVTA/GCT が財政的にもコミットを継続するのであれば、潜在的に高い」

政策面では、よりどころとする政策がすぐに変化することはないと見込まれる。組織・財政面は、人材育成も着実に進展しており、TEVTA の予算措置の規模は安定している。GCT R.R. でも、プロジェクト後の自己負担も可能な見通しであり、関係機関のオーナーシップも高い。ただし、今後さらに機材や施設の整備が進むと、その維持管理の量が増えることから、組織的・体系的な取り組みが必要になる。また、マスター・トレーナーについても、更なる育成を行い、「パ」国側自身で教員の育成を行える体制を作っていかなければならない。州内普及については、既述のとおり開始済みである。

### 3-3 効果発現に対する貢献要因／問題を惹起し得る阻害要因

#### (1) 貢献要因

TEVTA/GCT の高いコミットメントが貢献要因となっている。特に、現在の TEVTA 長官のプロジェクトに対するコミットメントは高く、各種課題の解決に迅速に対応している。

TEVTA/GCT の高いコミットメントにより女子学生受入れも実現した。また、学士号をもつトレーナーの採用がプロジェクトの効果発現を促進した。

(2) 阻害要因

長期専門家の派遣がプロジェクト開始から遅れたこと、及び、「パ」国側カウンターパート (Counterpart : C/P) [特にプロジェクト・ダイレクター (PD) とプロジェクト・マネジャー (PM)] が頻繁に替わったことで、プロジェクトの計画に沿ったスムーズな運営に多少の支障があった。

3-4 結論

妥当性、有効性、効率性、インパクト、持続性のいずれについても高い（もしくは潜在的に高い）と判断されることから、これまでのプロジェクトの活動とその成果は高く評価できる。

ただし、特に成果 1、3、4 に関する活動の多くはプロジェクト後半において取り組みが開始されるものであり、そのボリュームは小さくないことから、引き続き「パ」国側・日本側の継続的な取り組みが必須である。また、GCT R.R. に対しては別途、本技術協力により改訂されたカリキュラムの実施のために必要な施設・機材を整備するための無償資金協力が予定されており、両者は密接な連携を取りつつ実施される必要がある点に十分に留意が必要である。

3-5 提言

プロジェクト後半に向けた提言は以下のとおりである。

(1) 詳細な活動計画 (PO) の作成

既述のとおり、後半の活動は多岐・多数に上る。限られた時間内でこれらの活動を確実に実施するためにも、早期に個々の活動の実施者とスケジュールも記載した後半の活動の詳細計画を策定すること (2011 年 7 月末まで)。

(2) 計画の密接なモニタリング

新規に設定されたプロジェクト・デザイン・マトリックス (PDM) 指標に基づき、同活動の進捗を定期的に (半年に 1 度) モニタリングしていくこと。

(3) 関係者間のより密接なコミュニケーション

プロジェクト前半においては、「パ」国側・日本側のコミュニケーションが不十分であった点があり、後半においては、実施レベルでの定期協議 (JICA プロジェクトと TEVTA・GCT)、及び合同調整委員会 (JCC) の定期開催 (年 1 度程度) を行い、より密接なコミュニケーションを図ること。

(4) 維持管理予算の継続的確保

無償資金協力により整備される機材を含む施設を適切に管理していくために、組織的・体系的な維持管理体制の構築と必要な予算の措置が「パ」国側によりなされること。

(5) トレーナーの適切な配置

プロジェクトの持続性のためにも、プロジェクトの成果を維持・普及する鍵となる教員を適切に配置すること。

# 第1章 中間レビュー調査の概要

## 1-1 プロジェクトの概要

### 1-1-1 背景

パキスタン・イスラム共和国（以下「パ」国）では、国家開発計画であるVision2030の下、工業化の推進に取り組んでいる。製造業、建設業等が新たな雇用の受け皿として成長しつつあり、1997～2007年の間に、約1,100万人の雇用も生まれている。本プロジェクトサイトのパンジャブ州ラホールは、カラチに次ぐ同国第二の工業都市であり、各種エンジニアリング産業が発達し、機械や建築分野の技術者に対する需要も高い。特に労働者の作業現場と経営層をつなぐ中堅技術者の育成に対する需要が高まっている。

「パ」国政府は、技術教育・職業訓練（Technical and Vocational Education and Training : TVET）システムの改革に向けて、連邦レベルの国家職業技術教育委員会（National Vocational & Technical Education Commission : NAVTEC）の設置や、特定分野の先進的モデル校（Center of Excellence : COE）の設置等を含む、国家レベルのTVETセクター再構築戦略「The National Skill Strategy（2009-2013）」を策定している。

「パ」国のTVETシステムは、主に連邦レベルのNAVTEC、州レベルの技術教育・職業訓練庁（Technical Education & Vocational Training Authority : TEVTA）、そして技術短大（Government College of Technology : GCT）や職業訓練校といったTVET実施機関という3つの階層により構成されている。本プロジェクトで対象とするレイルウェイロード技術短期大学（Government College of Technology Railway Road Lahore : GCT R.R.）は、パンジャブ州で中堅技術者育成を担う中核技術教育機関であるが、10年以上も改訂がなされていないカリキュラムに基づく教育・訓練サービスが提供されていたことから、卒業生は即戦力として通用せず、企業に就職した後に、長期にわたる再教育を受ける状況等が生じるなどしていた。また、教員の技術力や指導力が十分でなく、教材が適切に活用されておらず、実習用機材が長期にわたり更新されていない、さらには卒業生の就業支援が組織的に行われておらず、産業界との連携体制が構築されていないなど、多くの課題を抱えていた。

かかる状況の下、「パ」国政府から、GCT R.R.を産業界のニーズに沿う教育を提供できるCOEとすべく、その強化を目的とした「技術教育改善プロジェクト」が要請され、現在、産業界のニーズ等も踏まえた教育・運営体制の確立のために、機械・建築の2分野を対象として協力を実施している。

本プロジェクトは、2008年12月から2013年11月までの5年間の予定で実施中であるが、今般、開始後2年半が経過したことから、協力の中間地点において「パ」国側と合同で本プロジェクトの目標達成度や成果等の達成状況を確認するとともに、プロジェクトの残り期間の課題及び今後の方向性について確認し、合同評価報告書に取りまとめ、合意することを目的に中間レビュー調査を実施した。

### 1-1-2 プロジェクトの概要

プロジェクトは、現行（オリジナル）プロジェクト・デザイン・マトリックス（Project Design Matrix : PDM）（2009年5月10日版）に基づき以下のように要約される。

表 1-1 プロジェクトの要約

上位目標	産業界のニーズを踏まえた技術教育を提供するためのアプローチが、GCT内のほかのコースに適用される。
プロジェクト目標	GCTが、機械・建築分野のCOEとして、産業界のニーズを踏まえた技術教育を提供できる機関となる。
成果 1	産業界のニーズを取り入れた技術教育が提供できるようGCTの組織体制が強化される。
成果 2	機械・建築コースの訓練マネジメントサイクルが強化される。
成果 3	GCTの就職支援体制が強化される。
成果 4	GCTがプロジェクトで得た経験・知見が、GCT内の他のコースや他のTVET機関（機械・建築）に周知される。

出所：現行（オリジナル）PDM

詳細については、付属資料1（ミニッツのAnnex-1）参照。

### 1-2 中間レビュー調査の目的

中間レビュー調査の主な目的は以下のとおりである。

- 1) プロジェクトの実績を計画と比較して検証する。
- 2) プロジェクトの実施プロセスを検証し、貢献・阻害要因を把握する。
- 3) 5項目評価（妥当性、有効性、効率性、インパクト、持続性）に即し、プロジェクトを分析・評価する。
- 4) PDMや運営計画（Plan of Operation : PO）の変更も含めプロジェクト後半で取るべきアクションについて提言を行う。

### 1-3 合同評価チームのメンバー

<パキスタン側>

- ・ Mr. Saeed Ahmad Alvi, Chairperson, TEVTA
- ・ Mr. Aqib Sharif, Deputy Manager M&E, TEVTA
- ・ Engr. Arif Ali Nadeem, Principal/Project Manager, GCT

<日本側>

- ・ 団長・総括：梅宮 直樹 JICA人間開発部高等技術教育課主任調査役
- ・ 評価分析：荻野 有子 株式会社コーエイ総合研究所コンサルティング第二部主任研究員

### 1-4 調査日程・主要面談者

本レビューの現地調査は、2011年6月13日から24日にわたり以下の日程で実施された。

Date	Schedule
12-Jun Sun	Arrive in Lahore (Ogino, TG 345, 22:30)



13-Jun	Mon	1) 10:00-11:00 Courtesy Call to Mr. Saeed Ahmad Alvi, Chairperson, TEVTA 2) 11:30-13:30 Interview with Mr. Somukawa, JICA Expert (Chief Advisor) 3) 14:40-15:50 Interview with Mr. Amjad Elahi, Senior Instructor GCT (Mechanical) 4) 16:00-19:00 Interview with Mr. Ito, JICA Expert (Architecture)
14-Jun	Tue	5) 09:30-10:30 Interview with 5 Female Instructors (Architecture) , GCT 6) 10:30-11:30 Interview with Mr. Mahmood Akhter Khan Saleem, HOD (Architecture), GCT 7) 12:00-13:30 Interview with Mr. Aqib Sharif, Deputy Manager M&E, TEVTA 8) 13:30-14:00 Interview with Mr. Muhammad Abid Javed, COO/GM-Op, TEVTA 9) 14:30-17:00 Interview with Mr. Sawada, JICA Expert (Mechanical), GCT
15-Jun	Wed	10) 10:00-14:00 Interview with Mr. Somukawa, JICA Expert (Chief Advisor) 11) 17:00-18:00 Interview with Mr. Abdul Jabbar, Senior Instructor, GCT
16-Jun	Thu	12) 09:00-10:00 Interview with Engr. Arif Ali Nadeem, Principal/Project Manager, GCT 13) 10:00-11:00 Interview with Mr. Muhammad Aqeel, HOD (Mechanical), GCT Observation on labs, classrooms, equipment etc.
17-Jun	Fri	14) 09:00-10:00 Interviews with Students (Architecture, Female 1st Grade) 15) 10:00-10:30 Interviews with Students (Architecture) 16) 10:30-11:00 Interviews with Students (Architecture) 17) 11:00-12:30 Interviews with Students (Mechanical) 16) 14:00-15:00 Interviews with Students (Architecture)
18-Jun	Sat	17) 12:00-13:00 Internal Meeting on PDM 18) 14:00-15:00 Interview with Prof. Javed Iqbal Malik, GM (Academics), TEVTA Arrive in Lahore (Umemiya, TG345 22:30)
19-Jun	Sun	Internal Meeting
20-Jun	Mon	10:30 - 12:30 Discussions on modification of PDM at TEVTA 14:30 - 17:00 Internal Meeting Drafting of M/M
21-Jun	Tue	Internal Meeting / Drafting of M/M, Sending M/M to stakeholders
22-Jun	Wed	11:00-14:00 Discussion on M/M
23-Jun	Thu	10:00 - 13:00 JCC meeting, Signing of M/M Move to Islamabad (PK616, 17:05→18:00)
24-Jun	Fri	1) 11:00 Meeting with Economic Affairs Division, Signing of M/M 2) 14:30 Report to Embassy of Japan (Mr. Otsubo, First Secretary, Mr. Goto, Second Secretary) Leaving for Japan (Umemiya, Ogino TG350, 23:20)

注： COO: Chief Operating Officer  
GM-Op: General Manager – Operations  
GM-F&A: General Manager – Finance & Administration  
HOD: Head of Department

## 1-5 評価の方法

### 1-5-1 評価枠組み

中間レビュー調査チーム（以下「チーム」）は、PDMに基づきプロジェクト開始当初から現在までのプロジェクトの実績と実施プロセスを把握したうえで、評価5項目の観点から評価を行った。結果の詳細は、付属資料1. ミニッツのAnnex-10参照。

### (1) プロジェクトの実績

プロジェクトの実績について、投入（インプット）、成果（アウトプット）、プロジェクト目標、上位目標について計画並びにPDM指標に即して検証した。

### (2) 実施プロセス

実施プロセスについて、計画に即して実施されてきたのか、プロジェクトマネジメントは適切であったかなどをレビューし、プロジェクトの実施プロセスに影響を与えた貢献・阻害要因を把握した。

### (3) 5項目評価

プロジェクトは、以下に説明する5項目の評価基準に基づいて分析・評価した。

表 1-2 5項目評価

1. 妥当性 (Relevance)	妥当性は、プロジェクトの正当性や必要性を問う視点である。プロジェクトの期待される効果（プロジェクト目標や上位目標等）はターゲットグループのニーズに合致しているか、プロジェクトは問題の解決方法として適切か、プロジェクトは政策との整合性があるか、プロジェクトの戦略やアプローチは妥当か、プロジェクトはODA予算を使って実施することが適切かなどを評価する。
2. 有効性 (Effectiveness)	有効性は、想定された対象者・社会に対してプロジェクトの実施により便益がもたらされるかを問う視点である。
3. 効率性 (Efficiency)	効率性はリソース・投入が成果に転換されているかを問う視点で、主としてプロジェクト・コストと効果の関係に焦点をあてる。
4. インパクト (Impact)	インパクトはプロジェクトの実施によって生じる、長期的な効果を問う視点で、直接的・間接的、正・負、想定された・想定されなかった効果を含む。
5. 持続性 (Sustainability)	持続性は、プロジェクトによる効果が支援終了後も持続され得るかを問う視点である。

出所：「JICA事業評価ガイドライン（改訂版）」（2004年）より作成

### (4) 情報源

既存の文献・各種報告書（事業進捗報告書、専門家報告書、活動実績資料等）に加え、本調査において、関係者への質問票調査、インタビュー調査を実施し必要な情報・データの追加収集を行った。対象は、NAVTEC、TEVTA、GCT R.R.（校長、教員、生徒）である（対象については上記日程表のとおり）。また、質問票・インタビュー項目の詳細は付属資料2参照。

調査結果については、2011年6月23日（木）に開催されたプロジェクト合同調整委員会（Joint Coordination Committee : JCC）において報告のうえ、ミニッツ（Minutes of Meetings : M/M）として取りまとめて署名を行った。詳細は付属資料1参照。

### 1-5-2 PDMの改訂

評価の枠組みとなるPDMについては、まずプロジェクト開始当初に「パ」国側・日本側で合意されたPDM（添付資料1.ミニッツのAnnex-1参照、以下、現行PDM）の改訂の要否について検証し、双方協議のうえ新たに合意したPDM（添付資料1.ミニッツのAnnex-2参照、以下、改訂PDM）に依拠した。主な改訂内容と理由は以下のとおりである。

表 1-3 現行PDMと改訂PDM比較一覧

	現行PDM	改訂PDM	理由
上位目標	Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other courses in GCT.	Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes (Mechanical and Architecture) in Punjab.	効果の拡大を念頭に、プロジェクト成果の適用される範囲を、「GCT内の他学科」から「パンジャブ州の他校」に改訂。
活動 1-4	Establish computerized data on institute for institute management.	Establish <u>and use</u> computerized data on institute for institute management.	学校マネジメント改善のために、データの「コンピュータ化」のみならず、「活用」を追記。
活動 2-3	Revise syllabus, <u>textbook</u> , exam paper and other teaching materials for Mechanical and Architecture courses based on industrial needs.	Revise syllabus, exam paper and other teaching and learning resource materials for Mechanical and Architecture courses based on industrial needs.	TEVTA/GCTで改訂プロセスが完結し得ない教科書の改訂はプロジェクトの対象外と整理。
活動 2-5	-	追加：Ratify list of equipment by academia and industry	必要性に基づき追加。
「パ」国側投入	-	以下を追加。Staff for M&E and Job Placement Support, Workshops for equipment installation and maintenance & renovation of facilities, Maintenance expenses for the equipment & machinery and facilities	「パ」国側投入の実績並びに必要性に基づき追加。
指標	-	改訂PDM参照	定義の明確化並びに達成状況の量的把握を目的として改訂。
入手手段	-	改訂PDM参照	指標の変更に即して改訂。

なお、改訂PDMは付属資料1.ミニッツのAnnex-2参照。

## 第2章 実績と実施プロセス

### 2-1 投入

#### 2-1-1 日本側

- ・日本人専門家：累計6名の長・短期専門家が、5つの指導科目で派遣された。詳細は付属資料1.ミニッツのAnnex-3参照。
- ・研修員受入：累計11名が、TEVTA（4名）、GCT（7名）よりカウンターパート（Counterpart：C/P）研修に参加した。詳細は付属資料1.ミニッツのAnnex-4参照。
- ・機材供与：合計50,305,000 PKR 相当の機材が供与された。詳細は付属資料1.ミニッツのAnnex-5参照。
- ・現地活動費（在外事業強化費）：合計21,224,016.50 PKR が支出された。詳細は付属資料1.ミニッツのAnnex-6参照。

#### 2-1-2 「パ」国側

- ・C/P：累計19名の主要C/Pが配置された<sup>1</sup>。詳細は付属資料1.ミニッツのAnnex-7参照。そのほかにも、技術移転を目的とするC/Pとして、機械33名（29名在職）、建築13名（10名在職）が配置された。
- ・執務スペース：専門家に提供された執務スペースはおおむね良好な状況である<sup>2</sup>。
- ・事業運営費：合計10,640,000 PKR がTEVTAにより負担された。詳細は付属資料1.ミニッツのAnnex-8参照。

### 2-2 プロジェクトの実績

#### 2-2-1 成果（アウトプット）

プロジェクト目標達成のためには、PDMに4つの成果が設定されている。成果ごとの達成状況は、改訂PDMの指標に基づき検証した。結果は以下のとおりである。

成果1	産業界のニーズを取り入れた技術教育が提供できるようGCT R.R.の組織体制が強化される。
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【指標1-1】コンピュータ化されたデータ（学生、教員、機材、就職情報等）が学校・学科運営のために活用される。

- ・学生（在校生2,000人、2011年3月時点）や供与機材のコンピュータ化は完了した。
- ・教員データは既存のものがあり、GCT学校案内（Prospectus）で更新されている。
- ・既存機材と就職支援情報については今後の活動として計画されている。
- ・データベースを活用した学校運営改善については、プロジェクト後半の活動として計画されている。

<sup>1</sup> なお、本中間レビュー調査のミニッツ協議を行った2011年6月22日時点でGM（Academics）がGM-Opも兼務することとなり、プロジェクト・ダイレクター（PD）はCOO/GM-OpからGM（Academics）に交代した。本プロジェクトのPDはGM-Opが務めることが討議議事録（Record of Discussions：R/D）で規定されている。

<sup>2</sup> ただし、計画停電の影響を減らすために、プロジェクトにより発電機を設置するなどして執務環境を整えた。

【指標1-2】10社以上の主要企業が、GCTと産業界との連携促進を目的とするワーキング・グループに参加する（機械・建築の各学科5社）。

現在、既に5社が学校運営委員会（Institute Management Committee：IMC）のメンバーとなっているが、あまり活発ではない。プロジェクトでは、IMCのような既存ワーキング・グループの活性化または新たなグループを立ち上げるなどし、プロジェクトの後半では主要企業（significant market player）が積極的に参加することが期待される。

【指標1-3】年間10回以上の企業との連携活動が実施される（トレーナーの企業研修2回×2学科、企業講師による講義4回×2学科、企業訪問2回×2学科、スキル・コンペティション／展示会2回）（機械・建築の各学科5回）。

プロジェクトの前半で実施された企業との連携活動は以下のとおりである。

- 1) トレーナーの企業研修：ゼロ
- 2) 企業講師による講義：3回
- 3) 企業訪問企業訪問：教員はゼロ、学生は数回
- 4) スキル・コンペティション／制作展示会：1回
- 5) 合計66社（機械44社、建築22社）が、訓練ニーズ調査（2009年）に協力した。

その他にも、企業は1年次にはテクニカ・ワーキング・グループ（Technical Working Group：TWG）、2年・3年次にはカリキュラム改訂委員会（Curriculum Revision Committee：CRC）並びにカリキュラム評価委員会（Curriculum Evaluation Committee：CEC）のメンバーとして、カリキュラム改訂に協力した<sup>3</sup>。

【指標1-4】GCTと産業界との連携促進を目的とするワーキング・グループの四半期会合  
プロジェクト前半におけるGCTと産業界との会合は、散発的に開催された。

【指標1-5】広報活動-プロジェクトのニュースレター（四半期）作成、定期的なGCTウェブページの更新

これまでに、2回ニュースレターが作成され、関係者に配布された。ウェブページは、既に作成された。

成果2	機械・建築コースの訓練マネジメントサイクルが強化される。
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【指標2-1】訓練ニーズ調査の実施

訓練ニーズ調査（Training Needs Assessment：TNA）はプロジェクト開始直後の2009年1月から4月にかけて、GCT R.R.初の試みとして実施された。教員は調査枠組みを作成し、企業・卒業生を訪問して情報・データを収集・分析し、報告書に取りまとめた。調査結果は、2009年4月から

<sup>3</sup> GCT主導によるTWGが結成され1年次カリキュラムを改訂したが、2年次からはTEVTAのGM（Academics）主導によるCRCが編成された。TWGのメンバーの多くは、CRCのメンバーとなった。

始まったエンジニアリング・ディプロマ（Diploma Associate of Engineering : DAE）コースのカリキュラム改訂に反映された。

**【指標2-2】 産業界ニーズに基づくカリキュラムの改訂<sup>4</sup>**

- ・1年次、2年次のカリキュラムは、TWG（1年次）／CRC（2年次）並びにCECとともに改訂作業を行い、パイロット・コースも続けて実施済みである。
- ・3年次カリキュラムも同様に改訂済みで、20011年9月からパイロット・コースが開始される。
- ・3年間の改訂カリキュラムは、すべてのパイロット・コースが終了後、さらにレビューが予定されている。

**【指標2-3】 パイロット・コース向けに訓練されたマスター・トレーナー（15人）**

- ・GCT教員は改訂カリキュラムのパイロット・コース授業を行うために訓練された。
- ・少なくとも、機械学科で3名、建築学科で5名がマスター・トレーナーとして訓練された。
- ・機械学科では、新規に改訂された科目が10科目となるため、合計10名のマスター・トレーナーが必要であり、あと7名を訓練する必要がある。
- ・建築学科では、必要なマスター・トレーナー数は合計5名であることから、現在の教員で充足している。

**【指標2-4】 マスター・トレーナーにより訓練された教員**

この活動はプロジェクト後半に実施される予定であり、実施状況を記録することが求められる。

**【指標2-5】 教材並びに試験問題の改訂**

- ・1年次、2年次のシラバス（年間のティーチング・スケジュール）は改訂された。3年次は、改訂中である。
- ・他の教材、授業案、オペレーション・シートも改訂または開発された。
- ・改訂カリキュラムに即した試験問題も改訂された。

**【指標2-6】 機材の据え付け並びに維持管理活動**

- ・改訂カリキュラムに必要な機材設置のために、施設改修が行われた。
- ・トレーナー訓練やパイロット・コース実施のために機材が設置された。
- ・機材目録は各学科で作成された。

**【指標2-7】 パイロット・コースのモニタリング・評価（M & E）が実施される。**

- ・1年次、2年次のパイロット・コースのモニタリング・評価（Monitoring & Evaluation : M & E）は実施された。1年次のM & E結果はワークショップを開催して共有を図った。2年次についても近く同様に実施される予定である。

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<sup>4</sup> カリキュラム改訂のプロセスは次のとおり。①教科を担当しているGCT.RR教員+JICA専門家でドラフト作成→②カリキュラム改定副委員会のメンバー（大学教員やGCT R.R.教員等）による修正→③カリキュラム改定委員会（CRC）で最終検討し最終ドラフト作成→④TEVTAカリキュラムセクションへ提出→⑤TEVTAカリキュラム評価委員会（CEC）で最終決定。

・3年次は、パイロット・コース開始後（2011年9月）にM & Eが行われる。

【指標2-8】 訓練マネジメントサイクル（TMC）のマニュアル作成

訓練マネジメントサイクル（Training Management Cycle：TMC）のマニュアルは、サイクルが一巡した段階で作成される予定である。

成果3	GCT R.R.の就職支援体制が強化される。
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【指標3-1】 就職情報、インターンシップ、雇用機会に係る情報のコンピュータ化

過去の就職情報（雇用者情報）は、データのコンピュータ化のために収集された。夏休みのインターンシップは、2年生を対象に開始されたところであり、データベース化の作業中である。

【指標3-2】 70%以上の学生がキャリアカウンセリングを利用する。

- ・ これまでは、キャリアカウンセリングは教員により個人的に行われており、カウンセリングを受けた学生数も不明である。
- ・ 改訂カリキュラムによる初の卒業生（2012年6月卒業）を対象に、組織的なキャリアカウンセリングを実施する予定である。その一環として、体育教育科長の下に就職課（Career Planning Support Section）が設立されたところである。利用状況は今後記録される。

【指標3-3】 70%以上の学生が就職支援に満足する。

- ・ 満足度データは、今後組織的な就職支援を受ける改訂カリキュラムで学習する学生を対象として収集される。
- ・ なお、参考情報であるが、訓練ニーズ調査時に機械学科の2、3年次在校生701名に対し、就職支援に対する満足度を聞いている。その回答は、平均2.5点（1のpoorから5のExcellentまで5段階スケール）であった。建築学科の学生についてのデータはない。

【指標3-4】 70%以上の雇用主が就職支援に満足する。

データはエンドライン調査で収集する。

成果4	GCTがプロジェクトで得た経験・知見が、GCT内のほかのコースやほかのTVET機関（機械・建築）に周知される。
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【指標4-1】 2回以上のセミナーを開催する。

【指標4-2】 70%以上のパンジャブ州のDAE校<sup>5</sup>（機械、建築）が、セミナーに参加する。

【指標4-3】 70%以上の参加者がセミナーの内容を理解する。

セミナーは、TMCが完全に一巡し、経験を十分蓄積した後に実施予定である。

<sup>5</sup> パンジャブ州内のGCTは、GCT R.R.を含め全部で16校ある。うち、建築学科は、GCT R.R.のみに設置されている。

## 2-2-2 プロジェクト目標

プロジェクト目標	GCT R.R.が、機械・建築分野のCOEとして、産業界のニーズを踏まえた技術教育を提供できる機関となる。
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【指標1】：70%以上の企業が、改訂カリキュラム導入後の卒業生の方が、以前の卒業生よりもパフォーマンスが高いと評価する。

企業の満足度データはエンドライン調査で収集する予定である。改訂カリキュラムによる第1期卒業生が2012年6月以降に雇用市場に参入するまでは判断できない。

【指標2】 70%以上の卒業生が、産業界のニーズを取り入れたDAEコースの内容に満足する。

- ・改訂カリキュラムで学習した卒業生の満足度データを、エンドライン調査で収集する。
- ・参考情報であるが、在校生の満足度は卒業後の満足度の一端を示していると推測される。

\* 全体

2学科の在校生（23名）を対象に中間レビュー調査でインタビューを実施したところ、全員が改訂カリキュラムやそれに伴う新機材・施設及びアップグレードされた教育環境に満足しているという意見であった。3年次の学生は、旧カリキュラムで学習した年次であるが、旧カリキュラムは内容が古く更新・アップグレードされるべきものであり、改訂カリキュラムで学習できればよかったとの意見が聞かれた。また、建築学科の学生は、教室環境の物理的改善や女性教員を含むGCT教員の質に対し、大いに満足していることも特筆される。

\* 建築学科の女子学生<sup>6</sup>

GCT R.R.に入学できたことに大変満足しており、モチベーションが高い。コモンルーム、女子トイレ、教員（男女とも）を含め、女子学生に配慮のある学科の環境を高く評価している。

【指標3】 機械・建築学科学生の修了試験合格率の改善

過去3年間の修了試験合格率は以下の表のとおり。過去3年間において、いずれの学科についても、一部の年を除いて合格率は低い水準にとどまっている。その理由は多岐にわたるが、最大の理由は、試験・カリキュラムが求める教育が十分に実践できておらず、結果として、生徒に必要な力が備わっていないからであると考えられる。新カリキュラム導入後、同カリキュラムに沿った教育がプロジェクトの支援によって確実に行われることにより、本試験合格率が上昇することが期待される。

<sup>6</sup> 建築学科では、在校生を対象に2011年5月に質問票調査を実施。登録者275名中165名が回答した。質問項目は、入学情報入手先、DAEカリキュラムの満足度、将来計画等である。右調査結果によると、例えば1年次女子学生は22名中17名が回答し、98%がDAEカリキュラムに満足し（merit）、97%が卒業後の進学を希望している。詳細は報告書（Department of Architecture, GCT R.R., Questionnaire Analysis of Technical College Students & Gender Equality in Pakistan, June 2011）参照。



表 2-1 GCT R.R.修了試験合格率推移<sup>7</sup>

年次	学科	2007-08	2008-09	2009-10
1年次	機械	40%	37%	46%
	建築	38%	32%	40%
2年次	機械	64%	37%	41%
	建築	24%	42%	56%
3年次	機械	89%	57%	45%
	建築	92%	43%	60%

出所：GCT R.R.

なお、現在の両学科の生徒数と教員数は下表のとおりである。

表 2-2 現状の機械学科及び建築学科の生徒数と教員数（2010年10月）

コース	授業形態	生徒数 (人)	教員数 (人)	教員1人当たりの 生徒数 (人)
機械学科	午前部クラス	506	28	19
	午後部クラス	520		19
	(計)	(1,026)		(37)
建築学科	午前部クラス	184	7	27
	午後部クラス	166		24
	(計)	(350)		(50)

出典：JICA（2011）「パ」国パンジャブ州短期大学強化計画準備調査報告書

注記：上記の教員数はラボ/ワークショップの助手やメンテ要員を除いている。教員は午前部クラスと午後部クラスの双方を担当している。

### 2-2-3 上位目標

上位目標	産業界のニーズを踏まえた技術教育を提供するためにプロジェクトの知見が、パンジャブ州内の他校（機械、建築）に適用される。
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【指標1】70%以上のパンジャブ州のDAE校（機械、建築）にプロジェクトのアプローチが導入される（アプローチ：成果1～4）。

- ・1年次カリキュラム（機械）は既にパンジャブ州内のほかのGCTに導入済みである。2年次カリキュラムについても近く導入予定であり、この点でプロジェクトは既に予定スケジュールに先んじているといえる。
- ・しかし、改訂カリキュラムを導入するには、教員訓練やカリキュラムに即した実験室・機

<sup>7</sup> JCC終了後、新たに別の修了試験合格率データがGCT R.R.より提供された。それによれば、DAE 1st Annual-2010の機械学科合格率は、68%（1年次）、44%（2年次）、56%（3年次）、建築学科は同46%、64%、90%となっている。いずれにせよ、終了時評価の際には、再度、過去の合格率データを確認のうえ、推移の動向を検証することに留意。

材などさまざまなインプットが必要で、特に内容が高度化する2, 3年次カリキュラム導入時には留意が必要である。

- TEVTAはそのような必要性を十分理解しており、予算措置を含む具体的計画の策定に着手したところである。
- 建築学科のあるGCTは本校だけであるが、土木学科と建築学科には共通する基本科目があるため、土木学科を設置している他校へ改訂カリキュラムが部分的に導入される可能性もある。また、新たに建築学科を他校に設置することもTEVTAでは具体的に議論され始めている。建築学科は、女性の就職需要が良好であることから、地方在住者も含め女子により機会を与えることができるため、GCT R.R.における女子入学に係るモデルと経験の普及は、ジェンダー課題に重要な効果をもたらすことが期待される。

## 2-3 実施プロセス

### 2-3-1 活動実績

プロジェクト活動は、PDMに即し必要な調整が行われておおむね計画どおり実施された。詳細は現行PO参照（附属資料1.ミニッツのAnnex-9）。

### 2-3-2 技術移転

技術移転の方法、内容、レベルはおおむね適切であった。ただし、C/Pの頻繁な交代があった〔特にPDとプロジェクト・マネジャー（PM）〕。

### 2-3-3 プロジェクトマネジメント

#### (1) モニタリング

- モニタリングはプロジェクト活動全般にわたり、おおむね適切に行われ、今後も同様に継続される予定である。
- TEVTAにはプロジェクトの担当者が任命されており、プロジェクトを定期的にモニターしている。
- TMC並びにパイロット・コースのM & Eは、JICA専門家とTEVTAが共同で行い、授業観察や教員・学生への質問票調査（注：2年次から学生は対象外）を実施して情報を収集した。1年次の改訂カリキュラムに対する1年間のモニタリング終了後、すべてのモニタリング結果を共有するワークショップを開いて問題に対処した。2年次のワークショップについては、同様のものを近く実施する予定である。

#### (2) 意思決定過程

- GCT R.R.のマネジメント上の意思決定は、TEVTAの意思決定メカニズムと密接に関連している。多くのプロセスを経るため決定に時間を要することがある。
- 既述のとおり、マネジメントレベルのC/Pが頻繁に交代したことは、意思決定に影響を及ぼした。
- JICA専門家チームとC/P機関の間で、定期的に決められた会合は設定されていないが、TEVTA長官、PD、PMなどC/Pの交代時など必要に応じて実施してきた。今後は、TEVTA県マネジャーやゾーン・マネジャーも含めて、定期的の実施することが望ましい。

- ・プロジェクト開始以来2年半の間、1度もJCCが開催されていなかったが、本来はNAVTECにより毎年開催されるものである。プロジェクト後半では、R/Dに添付のミニッツに明記されているとおり、年1回開催されることが期待される。

### (3) コミュニケーション

- ・JICA本部並びにパキスタン事務所とプロジェクト関係者間のコミュニケーションは、全般的に良好で十分なレベルであり、必要事項へのJICAの対応も適切であった。
- ・JICA専門家とC/Pとのコミュニケーションも全般的に良好であった。しかし、定期的な会合が設定されることが望ましい。また、GCT R.R.とTEVTA、TEVTAとNAVTEC間のコミュニケーションには、多少ギャップがみられる。より連絡を密にし、プロジェクトの情報や進捗状況を共有する必要がある。

### 2-3-4 オーナーシップ

- ・C/Pはプロジェクトの認識度合いが高く、プロジェクトの実施に積極的に参加している。
- ・配置されたC/Pは、マネジメントレベルでの頻繁な交代はあったものの、全体的に質、量、タイミングともおおむね適切であった。
- ・TEVTAとGCTでは、R/Dに添付のミニッツに記載された費用負担を適切に履行してきた。主な負担項目は、機械学科ジュビリーホールの実験室への改造、敷地内実験室の新規建設などで、その他さまざまな施設改修費用も自前で負担している。
- ・NAVTECは、連邦レベルの調整機関でプロジェクトとの直接のコンタクトは限られることもあり、ほかのC/P機関と比較するとプロジェクトの認識度合いは同じとはいえない。

## 第3章 評価5項目による評価結果

### 3-1 妥当性

妥当性は、「高い」といえる。理由は以下のとおりである。

#### (1) 必要性

プロジェクトは「パ」国及びパンジャブ州の中堅技術者養成ニーズ並びに各ターゲットグループのニーズに合致している。このニーズは、2008年に本プロジェクトが形成されて以来、特段の変化はない。

#### (2) 優先度

プロジェクトは、「パ」国の政策に合致している。関連する政策〔国家開発計画である中期開発枠組み（Mid Term Development Framework : MTDF）、産業・雇用政策であるVision 2030、TVET政策であるSkilling Pakistanなど〕に変更はなく、いずれも現行政策として位置づけられている。Skilling Pakistanでは、「目標1：産業・経済発展に求められる技能の提供（Providing relevant skills for industrial & economic development）」「目標2：アクセス、公平性、雇用可能性の向上（Improving access, equity and employability）」「目標3：訓練の質の確保（Assuring quality）」といった3つの目標達成に向けて20の改革を提唱している。「特定分野におけるCOEの設置」もそのひとつで、目標1に対応する。

プロジェクトは日本のODA政策とも整合している。パキスタン国別援助計画（2005年）は現在も「パ」国ODA政策として位置づけられており、プロジェクト形成時からの変更はない。優先分野として、中間層（middle class）の拡大に向けた高等教育並びに技術訓練への支援が掲げられている。

#### (3) アプローチの適切性

プロジェクトの戦略は全般的に適切であった。GCT R.R.の選定は、当初、物理的環境（老朽化した施設や敷地の狭さなど）がCOEとしては不利ではないかと懸念されたものの、一方で、長い歴史をもち、豊富な教員を擁し、地理的にも中心部に位置することからアクセスが良いという利点がある。物理的な問題よりも、それらの利点のほうが勝ることから、結果的に対象校として適切であったと判断される。また、本プロジェクトでも、その欠点を補うべく施設のアップグレードに貢献した。

NAVTECのドナー調整のもとに、GCT R.R.の機械と建築学科がJICAが支援する対象として選定されたものであり、他ドナーとの重複はない。また、GCT R.R.には、必要な施設と機材の整備のための無償資金協力が予定されており、今後の相乗効果が期待される。

### 3-2 有効性

有効性は、「プロジェクト後半においても計画どおりに活動が実施されれば、潜在的に高い」と判断される。理由は以下のとおりである。

(1) プロジェクト目標の達成

既述のとおり3つのPDM指標に即して検討した結果、プロジェクト後半で計画どおりに活動が実施されれば、プロジェクト終了までにプロジェクト目標は達成する見込みである。

(2) ロジックの検証

成果からプロジェクト目標に至るロジックは合理的である。GCTのマネジメント・システム（成果1）、TMC（成果2）並びに就職支援（成果3）が強化され、普及活動（成果4）が行われれば、これら成果1～4の結果として、GCT R.R.の機械・建築学科が、COEとして質の高い技術教育を提供すべく強化される。

(3) 外部条件

TEVTAでは、プロジェクトで育成された教員の異動を制限する旨の通達を出しており、外部条件の「訓練された教員が異動しない」については、担保される見通しである。

### 3-3 効率性

効率性は「高い」と判断される。理由は以下のとおりである。

(1) 成果の達成度

主に、成果1（一部）と2については計画どおり達成されてきている。成果3と4については、多くの活動がプロジェクト後半に予定されている。

(2) 日本側投入

日本人専門家の派遣が遅れたことを除き、おおむね適切であった。

(3) 「パ」国側投入

C/P（特にPDとPM）の頻繁な交代を除き、おおむね適切であった。

### 3-4 インパクト

インパクトの達成見込みは「引き続きTEVTAが成果の維持・普及に尽力するのであれば、潜在的に高い」と判断される。理由は以下のとおりである。

(1) 上位目標の達成見込み

達成が見込まれる。既に改訂カリキュラム（機械学科の1年次）は、昨年より他校に導入されている。続く2、3年次についても、既にTEVTAで予算措置を含む具体的な計画策定を始めたところである。

(2) 正のインパクト（波及効果）

ジェンダー課題に対する正のインパクトが挙げられる。GCT R.R.建築学科に、DAEレベルで初めての女子学生受入れが行われた。2010年に最初の1年生が入学し、次の学生も今年度選考される予定である。これは、TEVTAとGCT R.R.の高いコミットメントと支援により可能と

なったものである。パンジャブ州並びに「パ」国では、私立校や高等教育機関では共学は決して珍しくないが、政府系のGCT R.R.のようなDAEレベルでは女子の入学は認められていなかった。これにより、女子学生も、安価な授業料（私立よりかなり低い）でかつ将来の就業の機会を広げるような良い教育環境で学べることとなった。

### 3-5 持続性

持続性は、「引き続き技術的なキャパシティが強化され、かつTEVTA/GCTが財政的にもコミットを継続するのであれば、潜在的に高い」と判断される。理由は以下のとおりである。

#### (1) 政策面

プロジェクトにとって良好な、現在の政策／制度的環境は今後も続くことが予想される。

#### (2) 組織・財政面

- ・プロジェクトによる人材育成は着実に進んでいる。人材育成は、プロジェクト終了後もC/P機関により普及を行うレベルに達するまで継続されることが予測される。
- ・プロジェクト実施を直接担う機関であるTEVTAやGCT R.R.のオーナーシップは高い。
- ・TEVTAの2011～2012年度予算は、約22.5億PKRが開発予算（development budget）、45億PKRが経常予算（non-development budget）で、2010～2011年度とほぼ同じレベルが確保されている。
- ・GCT R.R.は、現在プロジェクト側で負担しているコストについても、プロジェクト終了後に自ら負担することが可能な見込みである。
- ・ただし、今後更に機材や施設の設備が進むと、その維持管理の量が増えることから、予算措置も含め組織的・体系的な取り組みが必要になることに留意が必要である。

#### (3) 技術面

- ・技術協力の方法は受容されており適切である。
- ・機械学科では、19科目中10科目が改訂対象となり、新しいスキルと知識を必要とする。これら10科目については、現時点で3名のマスター・トレーナー候補がおり、残り（少なくとも合計10人まで）も訓練する必要がある。
- ・建築学科では、新規採用者や女性教員も含め10名の教員がいるが、知識・技術を備えておりモチベーションも高い。彼らはマスター・トレーナーとなることが可能とみられる。
- ・GCT R.R.並びにTEVTAのコミットメントは全般的に非常に高く、財政的、時間的条件が整い、TEVTAによる具体的な進展計画が作成されれば、普及活動が本格化することが見込まれる。
- ・パンジャブ州内の他校への普及は、一義的にはTEVTAの責任範疇である。既に改訂カリキュラムの普及も開始され、予算措置も含めた計画作成とともに普及活動は継続される見込みである。プロジェクトでも、広報活動の一環としてニュースレターの発行やウェブサイトを作成などを開始した。また、TMCが一巡した段階で、プロジェクト後半には普及セミナーの開催を計画している。
- ・連邦レベルの普及は、プロジェクトの範囲外であり「パ」国側の対処事項である。

### 3-6 貢献要因

プロジェクトの効果発現を促進するうえで影響のあった貢献要因は以下のとおりである。

#### (1) TEVTA長官の強いイニシアティブ

2009年8月、プロジェクトに対する理解と支援のある現在の長官が着任し、強いイニシアティブとコミットメントによりプロジェクトの効率的・効果的实施に大きく寄与した。

#### (2) TEVTAとGCT R.R.の強い支援

両者のコミットメントは、プロジェクト前半を通じ、全般的に非常に高かった。

#### (3) TEVTAとGCT R.R.の女子学生受入れに対する強い支援

初の女子学生受入れは、両者の精力的な促進活動と強いコミットメントの下に可能となった。当初、女子学生の割り当てを10%と提案したところ、TEVTAの経営委員会（Board of Management : BOM）はそれを40%まで引き上げた。

#### (4) トレーナーの採用

機械学科では、学士をもつ3名の新規教員が2011年4月に採用となり、彼らがマスター・トレーナーとして訓練されている。さらに5名の新規採用も依頼中である。建築学科では、学士をもつ6名の新教員が2011年4月に採用され、既存の4名に加えて合計で10名の体制となった。彼らは、マスター・トレーナー業務を行うことができる人材である。既存の2名の女性教員に加え、新規採用となった若手女性教員の存在は女子学生の受入れ促進に良い効果をもたらしている。

### 3-7 問題を惹起し得る阻害要因

プロジェクトチームは、プロジェクト活動に支障をきたす可能性のある以下の要因に直面した。しかし、プロジェクト関係者により克服のための努力がなされ、結果としてプロジェクトの進捗を大きく阻害することには至らなかった。

#### (1) 日本人専門家派遣の遅延

プロジェクトは2008年12月に、チーフアドバイザー不在の下に開始された（着任は2009年4月）。機械分野の専門家は、2009年4月、ちょうど訓練ニーズ調査が終了した段階で着任した。建築分野の専門家は更に遅れ、1年次カリキュラム改訂終了後の2009年9月に着任した。

#### (2) C/Pの頻繁な交代（特にPD、PM）

頻繁な交代の結果、PD並びにPMとも現在3代目である<sup>8</sup>。

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<sup>8</sup> 既述のとおり、2011年6月22日時点でGM（Academics）がGM-Opも兼務することとなり、PDはCOO/GM-OpからGM（Academics）/GM-Opに交代した。これにより、現在のPDは4代目となる。なお、GM（Academics）はカリキュラム改訂にかかるTEVTA側の中心ポジションであり、プロジェクトには既に関与していた職位・人物であることから、継続性は保たれるものとみられる。

## 第4章 結論及び提言

### 4-1 結論

評価の結論の要約は以下のとおりである。

表4-1 5項目評価の要約

評価項目	評価結果
1. 妥当性	高い。
2. 有効性	プロジェクト後半においても計画どおりに活動が実施されれば、潜在的に高い。
3. 効率性	高い。
4. インパクト	引き続きTEVTAが成果の維持・普及に尽力するのであれば、潜在的に高い。
5. 持続性	引き続き技術的なキャパシティが強化され、かつTEVTA/GCTが財政的にもコミットを継続するのであれば、潜在的に高い。

妥当性については、プロジェクトは「パ」国のニーズ並びに政策に合致しており、プロジェクトのアプローチもおおむね適切であることなどから、「高い」と判断される。有効性についても、プロジェクトは計画どおりに成果を産出してきており、「プロジェクト後半においても計画どおりに活動が実施されれば、潜在的に高い」とみられる。効率性は、両者からの投入が適切になされおおむね効率的に活用されたことから「高い」と判断される。インパクトは、1年次カリキュラムを他校に導入するなど既に普及活動が開始されており、「引き続きTEVTAが成果の維持・普及に尽力するのであれば、潜在的に高い」とみられる。持続性は、特にトレーナーの育成を念頭に、「引き続き技術的なキャパシティが強化され、かつTEVTA/GCTが財政的にもコミットを継続するのであれば、潜在的に高い」といえる。

結論として、プロジェクトの実施並びに達成状況は高く評価される。しかしながら、プロジェクト後半には、特に成果1、3、4において多くの活動が計画されていることに留意する必要がある。加えて、GCT R.R.への無償資金協力により機材整備と施設建設が予定されていることから、プロジェクトとの緊密な連携が求められる。関連する活動として、例えば、「アカデミア並びに産業界により機材リストを承認する(2-5)」や、「機材台帳及びメンテナンス体制を整備する(2-6)」などの強化が求められる。なお、プロジェクトの後半で、加速される／注意深く実施されるべき活動は以下のとおりである。

#### <成果1>

- 1-1. GCTと産業界の連携を促進するワーキング・グループを形成する。
- 1-2. 産業界との連携活動を実施する。
- 1-3. GCT及びその活動と産業界並びに学生との関係強化・広報を行う
- 1-4. 学校運営に必要なデータのコンピュータ化整備並びに活用を行う。



<成果2>

- 2-5. アカデミア並びに産業界により機材リストを承認する。
- 2-6. 機材台帳及びメンテナンス体制を整備する。
- 2-7. マスター・トレーナーの育成を行う。
- 2-11. TMCのマニュアルを作成する。

<成果3>

- 3-1. 卒業生の追跡調査システムを導入する。
- 3-2. 求職情報のデータベースを作成する。
- 3-3. 学生に対するキャリアカウンセリングを実施する。
- 3-4. キャリアセミナーの活動を促進する。

<成果4>

- 4-1. プロジェクトの活動・成果等を紹介するセミナーを開催する。

## 4-2 提言

プロジェクト後半に向けた提言は以下のとおりである。

### (1) 詳細なPOの作成

上記の活動を実施し、決められた期間内にプロジェクト目標を達成するために、誰がどの活動を担当するのか各活動について記載した詳細なPOを作成し、めどとして2011年7月末までには関係者によって合意する必要がある。

### (2) 計画の密接なモニタリング

POは、関係者によって定期的に密接にモニターされる必要がある。そのためには、半年ごとに改訂PDMの指標に即して検証されることが望ましい。なお、データは、男女別に収集しジェンダー別のインパクトが把握できるようにする必要がある。

### (3) 関係者間のより密接なコミュニケーション

JCCは、R/Dに添付のミニッツに明記されているとおり開催されることが望ましい。また、JICAプロジェクトチームと関連C/P機関との定期的な会合を設定し、TEVTAの県マネージャーやゾーン・マネージャーも含めて開催されることが望ましい。

### (4) 維持管理予算の継続的確保

組織的・体系的な機材・施設の維持管理は、予算措置も含めTEVTAとGCT R.R.の継続的なコミットメントが担保される必要がある。

### (5) トレーナーの適切な配置

GCTのCOEとしての機能が持続するためには、訓練されたトレーナーは重要な構成要素である。よって、TEVTAには、GCT R.R.が今後も資格を備え訓練されたトレーナーを擁することができるような支援が求められる。

## 付 属 資 料

1. 署名済みミニッツ（含むAnnex）
2. 質問票・インタビュー項目

1. 署名済みミニッツ (含む Annex)

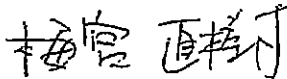
MINUTES OF MEETING  
BETWEEN  
THE JAPAN INTERNATIONAL AGENCY  
AND  
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF  
ISLAMIC REPUBLIC OF PAKISTAN  
ON  
THE JAPANESE TECHNICAL COOPERATION FOR  
THE PROJECT FOR DEVELOPMENT OF CENTER OF EXCELLENCE (COE)  
FOR TECHNICAL EDUCATION

The Mid-term Review Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Dr. Naoki Umemiya, conducted evaluation study from June 13<sup>th</sup> to June 23<sup>rd</sup>, 2011, for the purpose of the mid-term review on the Project for Development of Center of Excellence (COE) for Technical Education (hereinafter referred to as "the Project").

During its visit to the Islamic Republic of Pakistan, the Team had collected relevant data and information, and had a series of meetings with the authorities and organization concerned.

As a result of the discussions, the team and the Pakistani authorities concerned agreed on the matters referred to in the document attached hereto.

Lahore  
June 23, 2011



Naoki Umemiya

Leader

Mid-term Review Team,

Japan International Cooperation Agency (JICA),

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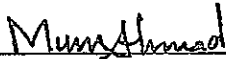


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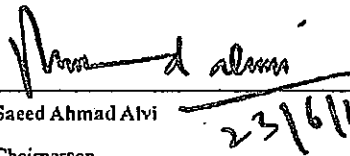
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Ministry of Economic Affairs and Statistics

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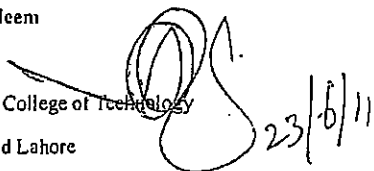
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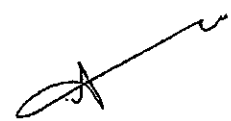
  
23/6/11

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M.A

# 1. OUTLINE OF THE MID TERM REVIEW

## 1-1 PROJECT OVERVIEW

### 1-1-1 Background

The government of Islamic Republic of Pakistan has been putting efforts to further promote its industrialization under the national development plan of Vision 2030. Industries including manufacturing and construction have been growing, which generated approximately 1.1 million employment opportunities over the period between 1997 and 2007. Lahore, the site of this Project, is the second largest industrial city in the country after Karachi, with growing various types of engineering industries which demand technicians in mechanical and architecture fields. Particularly the demand for middle-level technicians who can link the construction/manufacturing sites and management is growing fast.

The government is reforming the system of Technical and Vocational Education and Training (TVET), by establishing National Vocational and Technical Education Commission at the federal government level and by developing "The National Skill Strategy (2009-2013)" which aim to implement different reforms including establishment of Center of Excellence.

The Government College of Technology Railway Road (GCT) is a leading training institute in Punjab. It, however, faced various problems such as an outdated curriculum which had not been revised for more than 10 years, insufficient number and quality of trainers, unavailable placement service, weak linkage with industrial sectors, etc.

The Project for Development of Center of Excellence (COE) for Technical Education started in December 2008 for the period of five years, with an official request from the government of Islamic Republic of Pakistan to the government of Japan, in order to address these problems, and eventually to enhance the capacity of GCT to provide quality education in Mechanical and Architecture courses based on industrial needs as COE.

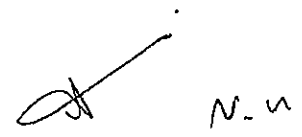
The Mid-term Review Team for the project was organized and dispatched by JICA in the middle of the Project cooperation period.

### 1-1-2 Narrative Summary of the Project

The Project is summarized according to the original PDM (10 May 2009) as below:

Overall Goal	Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other courses in GCT.
Project Purpose	Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as CoE.
Output 1	Management system of GCT is strengthened as a CoE which can offer technical education relevant to industrial needs.
Output 2	Training management cycle of Mechanical and Architecture courses is strengthened.
Output 3	Placement support of GCT is strengthened.
Output 4	Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.

For a complete version, please see attached original PDM (Annex 1).



## 1-2 OBJECTIVES OF THE MID TERM REVIEW

The main objectives of the Mid Term Review are as follows:

- 1) To verify the accomplishments of the Project compared to those planned;
- 2) To identify obstacles and/or facilitating factors that have affected the implementation process;
- 3) To analyze the Project in terms of the five evaluation criteria (i.e. Relevance, Efficiency, Effectiveness, Impact and Sustainability); and
- 4) To make recommendations on the Project regarding the measures to be taken for the 2<sup>nd</sup> half of the project, including modification of PDM and PO.

## 1-3 MEMBERS OF THE JOINT EVALUATION TEAM

### Pakistani side

- 1) Mr. Saeed Ahmad Alvi, Chairperson, TEVTA
- 2) Mr. Aqib Sharif, Deputy Manager M&E, TEVTA
- 3) Engr. Arif Ali Nadeem, Principal/Project Manager, GCT

### Japanese side

- 1) Leader: Dr. Naoki UMEMIYA, Deputy Director, Technical and Higher Education Division, Human Development Department, JICA
- 2) Evaluation Analysis: Ms. Yuko OGINO, Senior Consultant, KRI International Corp.

## 1-4 SCHEDULE OF THE MID TERM REVIEW

The Review was conducted from 13 to 25 June 2011 as follows.

Date		Schedule
12-Jun	Sun	Arrive in Lahore (Ogino, TG 345, 22:30)
		1) 10:00-11:00 Courtesy Call to Mr. Saeed Ahmad Alvi, Chairperson, TEVTA 2) 11:30-13:30 Interview with Mr. Somukawa, JICA Expert (Chief Advisor) 3) 14:40-15:50 Interview with Mr. Amjad Elahi, Senior Instructor GCT (Mechanical)
13-Jun	Mon	4) 16:00-19:00 Interview with Mr. Ito, JICA Expert (Architecture)
		5) 09:30-10:30 Interview with 5 Female Instructors (Architecture), GCT 6) 10:30-11:30 Interview with Mr. Mahmood Akhter Khan Saleem, HOD (Architecture), GCT 7) 12:00-13:30 Interview with Mr. Aqib Sharif, Deputy Manager M&E, TEVTA 8) 13:30-14:00 Interview with Mr. Muhammad Abid Javed, COO/GM-Op, TEVTA 9) 14:30-17:00 Interview with Mr. Sawada, JICA Expert (Mechanical), GCT
14-Jun	Tue	
15-Jun	Wed	10) 10:00-14:00 Interview with Mr. Somukawa, JICA Expert (Chief Advisor) 11) 17:00-18:00 Interview with Mr. Abdul Jabbar, Senior Instructor, GCT
		12) 9:00- 10:00 Interview with Engr. Arif Ali Nadeem, Principal/Project Manager, GCT 13) 10:00-11:00 Interview with Mr. Muhammad Aqeel, HOD (Mechanical), GCT Observation on labs, classrooms, equipment etc.
16-Jun	Thu	
		14) 09:00-10:00 Interviews with Students (Architecture, Female 1st Grade) 15) 10:00-10:30 Interviews with Students (Architecture) 16) 10:30-11:00 Interviews with Students (Architecture) 17) 11:00-12:30 Interviews with Students (Mechanical)
17-Jun	Fri	16) 14:00-15:00 Interviews with Students (Architecture)

18-Jun	Sat	17) 12:00-13:00 Internal Meeting on PDM 18) 14:00-15:00 Interview with Prof. Javed Iqbal Malik, GM (Academics), TEVTA Arrive in Lahore (Umemiya, TG345 22:30)
19-Jun	Sun	Internal Meeting
20-Jun	Mon	10:30 - 12:30 Discussions on modification of PDM at TEVTA 14:30 - 17:00 Internal Meeting Drafting of M/M
21-Jun	Tue	Internal Meeting / Drafting of M/M, Sending M/M to stakeholders
22-Jun	Wed	11:00-14:00 Discussion on M/M
23-Jun	Thu	10:00 - 13:00 JCC meeting, Signing of M/M Move to Islamabad (PK616, 17:05→18:00)
24-Jun	Fri	1) 10:00 Meeting with EAD, Signing of M/M 2) 14:00 Report to EOJ Leaving for Japan (Umemiya, Ogino TG350, 23:20)

## 1-5 METHODOLOGY OF EVALUTAION

### 1-5-1 Evaluation Framework

The Mid-term Review Team (hereinafter referred to as "the Team") reviewed related documents and information collected through questionnaires and interviews with Pakistani counterpart personnel, Japanese experts and relevant stakeholders. The Team analyzed the Project from the viewpoints of 1) achievements of the project, 2) implementation process, and 3) the five evaluation criteria.

#### (1) Achievements of the Project

Achievements of the Project were measured in terms of Inputs, Outputs, Project Purpose and Overall Goal in comparison with the Objectively Verifiable Indicators of the PDM.

#### (2) Implementation Process

Implementation process of the evaluated Project was reviewed to see if the activities have been implemented according to the schedule outlined in the PO, and to see if the Project has been managed properly as well as to identify contributing and/or hampering factors that have affected the implementation process.

#### (3) Evaluation based on the Five Evaluation Criteria

The project is analyzed and based on the 5 Evaluation Criteria as described below:

#### Five Evaluation Criteria

1. Relevance	A criterion for considering the validity and necessity of a project regarding whether the expected effects of a project (or project purpose and overall goal) meet with the needs of target beneficiaries; whether a project intervention is appropriate as a solution for problems concerned; whether the contents of a project is consistent with policies; whether project strategies and approaches are relevant, and whether a project is justified to be implemented with public funds of ODA.
2. Effectiveness	A criterion for considering whether the implementation of project has benefited (or will benefit) the intended beneficiaries or the target society.

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3. Efficiency	A criterion for considering how economic resource/inputs are converted to results. The main focus is on the relationship between project cost and effects.
4. Impact	A criterion for considering the effects of the project with an eye on the longer term effects including direct or indirect, positive or negative, intended or unintended.
5. Sustainability	A criterion for considering whether produced effects continue after the termination of the assistance.

Source: JICA Guideline for Project Evaluation (2004)

#### 1-5-2 Modification of Project Design Matrix (PDM)

For evaluation of a technical cooperation of JICA, Project Design Matrix (PDM) is used as one of the essential documents. During the Review, PDM was modified through discussions among all concerned and revised into PDM<sub>1</sub>. The major part of the modification is explained as below, and for a complete one, please see ANNEX-2.

	PDM <sub>0</sub>	PDM <sub>1</sub>	Reasons
Overall Goal	Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other courses in GCT.	Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes (Mechanical and Architecture) in Punjab.	The outputs of the project is expected to be disseminated to other institutes in Punjab to bring about larger impacts
Activity 1-4	Establish computerized data on institute for institute management.	Establish and use computerized data on institute for institute management.	It is necessary not only to establish computerized database but also to make sure to have it used for better management.
Activity 2-3	Revise syllabus, <u>textbook</u> , exam paper and other teaching materials for Mechanical and Architecture courses based on industrial needs.	Revise syllabus, exam paper and other teaching and learning resource materials for Mechanical and Architecture courses based on industrial needs.	Revision of textbook is beyond the purview of the Project.
Activity 2-5.	-	The following activity is newly added: Ratify list of equipment by academia and industry	Based on necessity
Inputs for Pakistani side	-	The following inputs are added: Staff for M&E and Job Placement Support, Workshops for equipment installation and maintenance & renovation of facilities, Maintenance expenses for the equipment & machinery and facilities	Based on actual and necessary inputs



The objectively verifiable indicators have also been modified with the aim to give clear definition to the indicators with quantitative targets. Means of verification have been modified accordingly. For details, please see attached PDM<sub>1</sub> (Annex-2).

## 2. ACHIEVEMENT AND IMPLEMENTATION PROCESS

### 2-1 INPUTS

#### 2-1-1 Japanese Side

- 1) Japanese Experts: A total of five long-term experts and one short-term expert have been fielded for five positions. (See ANNEX-3 )
- 2) Training in Japan: A total of 11 counterparts attended the Counterpart Training in Japan from TEVTA (four) and GCT (seven). (See ANNEX-4 )
- 3) Equipment: A total of 50,305,000 PKR worth equipment has been provided. (See ANNEX-5 )
- 4) Operational Budget: A total of 21,224,016.50 PKR has been spent for general operation. (See ANNEX-6)

#### 2-1-2 Pakistani Side

- 1) C/Ps: A total of 19 personnel has been appointed as main counterpart of the project. (See ANNEX-7)  
As technical counterparts, faculty member are assigned in each department in the number of 33 in Mechanical (29 at present) and 13 in Architecture (10 at present) .
- 2) Office: Offices for experts have been provided in good conditions.
- 3) Operational costs: A total of approx. 10,640,000 PKR from TEVTA was allocated. For details, please see Annex-8. (See ANNEX-8 )

### 2-2 ACHIEVEMENTS OF THE PROJECT

#### 2-2-1 Outputs

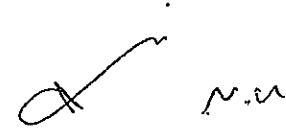
In order to achieve the Project Objective, four (4) Outputs are specified in PDM of the Project. The achievement and review of each Output based on the revised indicators is summarized as follows:

#### Output 1: Management system of GCT R.R. is strengthened as a COE which can offer technical education relevant to industrial needs)

##### (1-1. Use of computerized data on students, trainers, equipment, job placement, etc. for school / department management )

- Computerized data was formulated for students and equipment items provided by the project.
- There is already an existing data file for trainers which has been used and updated in GCT Prospectus every year.
- Database for existing equipment and job placement will be formulated.
- Utilization of database is going to be the next step in the 2nd half of the project for the better school management of GCT.

##### (1-2. Ten (10) or more significant market players participate in working group for promoting collaboration between GCT and industries ( 5 in each technology))



Currently, there are already 5 industry members in Institute Management Committee (IMC), though they are not as active as expected. The project plans to activate the existing working group like IMC or set up a new one, and significant market players are expected to actively participate in the group in the 2<sup>nd</sup> half of the project.

**(1-3. Ten (10) or more annual collaborative activities with industry (industrial training of trainers: 2x2, lecture by industry: 4x2, industrial visit: 2x2, skill competition / Exhibition: 2) (5 in each technology)**

Collaborative activities with industries in the 1<sup>st</sup> half of the project are follows:

- 1) Industrial training of trainers: zero.
- 2) Lecture by industry: three.
- 3) Industrial visit: zero by trainers, several by students
- 4) Skill competition/exhibition: one time.
- 5) A total of 66 enterprises (44 Mechanical, and 22 Architecture) cooperated in TNA exercise (2009) very responsively.

In addition, industry members have cooperated through participation as members in the Technical Working Group (TWG) for the 1<sup>st</sup> year curriculum revision, and in the Curriculum Revision Committee (CRC) and Curriculum Evaluation Committee (CEC) for 2<sup>nd</sup> and 3<sup>rd</sup> year revision.

**(1-4. A quarterly meeting between institute and industry)**

Meetings between institute and industry have been held sporadically in the 1<sup>st</sup> half of the project.

**(1-5. Public Relations - Quarterly project newsletters, Regularly updated College webpage)**

Two Newsletters of the project have been issued and distributed to concerned stakeholders. Webpage has been already developed.

### **Output 2: Training management cycle of Mechanical and Architecture courses is strengthened.**

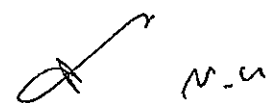
**(2-1. Conducted Training Needs Assessment (TNA))**

TNA was conducted in the beginning of the project (Jan.-Apr. 2009) for the very first time in GCT R.R. GCT faculty members designed TNA framework, visited firms and ex-students, collected and analyzed information/data and prepared the reports. TNA results were fed into the process of curriculum revision starting Apr. 2009 as intended.

**(2-2. Revised curriculum based on industrial needs)**

- 1st and 2<sup>nd</sup> year curriculum have been revised through working with TWG (1<sup>st</sup> year)/CRC (2<sup>nd</sup> year) and TEVTA CEC, followed by implementation of pilot courses.
- 3rd year curriculum was also revised through working with TEVTA CRC and CEC. The 3rd year pilot courses will start in Sept. 2011.
- The 3-year complete revised curricula will be further reviewed after the completion of all the pilot courses.

**(2-3. Trained master trainers (15) for pilot courses)**



- GCT instructors were trained to teach pilot courses of the revised curricula.
- At least, three trainers in Mechanical and five trainers in Architecture have been trained to be master trainers.
- For Mechanical department, a total of 10 master trainers is required to cover the newly revised 10 subjects, and therefore, at least 7 more trainers need to be trained to become master trainers.
- For Architecture department, a total of 5 master trainers is required, and therefore, present staff will be able to teach others.

**(2-4. Trained trainers by master trainers)**

This will be done in the 2<sup>nd</sup> half of the project and status will be recorded.

**(2-5. Revised teaching materials and exam papers)**

- 1st and 2nd year syllabuses (annual teaching schedules) were revised. 3rd year one is underway.
- Other teaching materials, lesson plans, operation sheets were revised and/or developed.
- Exam papers compliant with the revised curriculum have been revised.

**(2-6. Installed equipment and maintenance activities)**

- Facilities were renovated for the installation of equipment necessary for the revised curriculum.
- The equipment was installed for trainer training and pilot courses.
- Equipment inventory was made in each department.

**(2-7. Monitored & evaluated pilot courses)**

- Monitoring and Evaluation of the pilot courses of 1st and 2nd year was conducted. The results of the 1<sup>st</sup> year M & E were shared in the workshop, and the same will be done for 2<sup>nd</sup> year M & E results soon.
- 3rd year M&E will be conducted after the start of 3rd year pilot courses.

**(2-8. Developed TMC manual)**

TMC manual will be developed after completing the one cycle of TMC.

**Output 3: Placement support of GCT is strengthened.**

**(3-1. Computerized data on placement, internship, opportunities)**

- Past records of job placement (information about employers) have been collected to make computerized data. For internship, this has just started for the 2<sup>nd</sup> year students for this summer vacation. Computerizing data is underway.

**(3-2. 70% or more of students take career counseling)**

- So far, career counseling was provided on personal basis by instructors and the number of students who got such counseling is not known.
- GCT will provide career counseling on organizational basis starting for the 1<sup>st</sup> students of revised curriculum scheduled to graduate in June 2012. As part of it, a "Career Planning Support Section" was established under the director of physical education.

**(3-3. 70% or more of students' satisfaction rate of placement support)**

- The data will be collected from the students under the revised curriculum who will be provided with systematic placement support.
- For information, TNA collected the responses on placement services from 701 regular students of DAE

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(Mechanical) of 2<sup>nd</sup> and 3<sup>rd</sup> year. The average score for the question is 2.5 (1-5 scale from Poor to Excellent). There is no data in TNA for students of DAE(Architecture)

(3-4. 70% or more of employers' satisfaction rate of placement support)

- The data will be collected in the Endline survey.

**Output 4: Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.**

(4-1. Two or more seminars held)

(4-2. 70% or more of DAE institutes (Mechanical and Architecture) in Punjab participate in seminars.)

(4-3. 70% or more of participants understand the seminar content.)

- Seminars will be held after the one complete cycle of TMC with experiences fully accumulated.

2-2-2 Project Purpose

**Project Purpose: Mechanical and Architecture courses of GCT R.R. provide quality in technical education based on industrial needs as COE**

(1. 70% or more of firms considers performance of graduates of GCT R.R. after new curriculum introduction is higher than previous graduates.)

- The data of satisfaction of industry will be collected in Endline Survey. It is not possible to judge until the 1<sup>st</sup> students of revised curriculum graduate and go into job market after June 2012.

(2. 70% or more of graduates of GCT R.R. are satisfied with DAE course contents compatible to industrial needs)

- The data of satisfaction of ex-students will be collected in the Endline Survey.
- The present students' satisfaction, however, may partly indicate their future satisfaction.
  - \* Overall: From the interviews with students of two departments conducted in Mid Term Review, they all expressed overall satisfaction about revised curriculum and associated introduction of new equipment, facilities and upgraded educational conditions. The 3<sup>rd</sup> grade students who are under the old curriculum mentioned their wish to have studied under new curriculum since old one was obsolete and needs updated and upgraded. Architecture students are highly satisfied with improved, physical conditions of classrooms as well as trainer quality including female trainers.
  - \* Female students in Architecture: They are quite satisfied with admission into GCT and highly motivated. They also appreciate environments in the department conducive to females in particular such as common room, female bathroom and trainers both male and female.

(3. Passing exam rates of students in Mechanics and Architecture increase)

- Passing exam rates of the recent years are shown in the below table.

Grade	Department	2007-08	2008-09	2009-10
1 <sup>st</sup> year	Mechanical	40%	37%	46%
	Architecture	38%	32%	40%
2 <sup>nd</sup> year	Mechanical	64%	37%	41%
	Architecture	24%	42%	56%
3 <sup>rd</sup> year	Mechanical	89%	57%	45%
	Architecture	92%	43%	60%

### 2-2-3 Overall Goal

**Overall Goal:** Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes (Mechanical and Architecture) in Punjab.

**(1. 70% or more of DAE institutes (Mechanical & Architecture) in Punjab introduce approach of the Project. (Approach: Outputs 1-4))**

- 1st year revised curriculum (Mechanical) has already been introduced into other institutions in Panjab, and 2<sup>nd</sup> year curriculum will be done the same soon. In this sense, the project precedes the time schedule ahead.
- However, it should be noted that introducing new curriculum requires various inputs such as trainer training, curriculum compliant labs and equipment especially for 2nd and 3rd year curriculum
- TEVTA are well aware of such requirements.
- Architecture department in the government college is only in GCT R.R. but there is a possibility of applying a part of curriculum into other institutions where civil engineering departments exist, because basic subjects are common between architecture and civil engineering. Also, establishing new Architecture department in other institutions may be another option which is now becoming a concrete agenda in TEVTA. Since Architecture department provides more opportunities to female including those in local areas, disseminating the model and experiences of female admission at GCT R.R. will have a significant effect on gender issues.

### 2-3 IMPLEMENTATION PROCESS

**(1) Progress of Activities**

The project activities have been implemented mostly as planned in the PDM with necessary adjustments. Please see the present PO (Annex-9).

**(2) Technical Transfer**

Technical assistance in terms of methods, contents and levels has been mostly appropriate and accepted by C/Ps. An issue related to technical assistance is frequent transfer of major C/Ps (PD and PM).

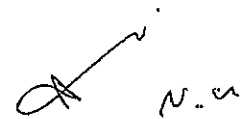
**(3) Project Management: Monitoring, Decision Making Process and Communication**

Monitoring:

- Monitoring has been conducted extensively so far in the project and will continue to do so.
- In TEVTA, there is a focal point in the project who regularly monitor the project.
- M & E of TMC and implementation of pilot courses has been carried out jointly with JICA Experts and TEVTA-M&E. By visiting and observing lessons, questionnaires to instructors and students (note: students will be dropped from the second year) for their comments and evaluations. After 1 year monitoring of 1st year revised curriculum, a workshop was held where all the monitoring results were shared and discussed for remedy actions. For 2nd year monitoring workshop, it is expected to do the same soon.

Decision making process:

- Decision making on management of GCT R.R. is strongly associated with decision making mechanism of TEVTA. In such sense, there is no short cut, and it takes some time.
- As mentioned earlier, due to frequent changes of C/Ps at management level, decision making process



suffered.

- There have not been regularly fixed, joint meetings between JICA and relevant C/P organizations. However, they met, as and when; for example, new Chairperson, PD, and PM take the office. It is recommended that regular meetings should be held in the 2nd half of the project, preferably including TEVTA District Manager, and Zone Manager.
- There was no JCC held in the past 2.5 years. JCC is supposed to be held yearly and convened by NAVTEC. For the latter half of the project, it is also recommended that JCC be held as stipulated in the M/M.

#### Communication:

- Overall, communication with JICA (HQs and Country Office) has been smooth and sufficient level of communication has been maintained with reasonable responses from JICA.
- Overall, Communication between JICA Experts and C/Ps has been smooth. However, regular meetings are recommended. There may be a certain gap between GCT R.R - TEVTA, and TEVTA – NAVTEC. They need to be further communicated and share information and progress of the project.

#### **(4) Ownership**

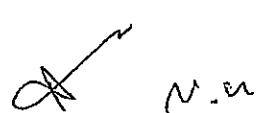
- C/Ps have a good understanding of the project and participate in the project implementation actively.
- Overall, assigned C/Ps have been appropriate in terms of quality, quantity and timing.
- TEVTA and GCT have borne the expenses as described in the M/M almost appropriately. The major items borne by TEVTA/GCT were development of Labs in Jubli Hall, Mechanical Technology, and new construction of Lab in college campus, Mechanical Technology, and others.
- NAVTEC's understanding about the project is not as the same level as other C/P organization because of its role as coordination body at Federal level, and had limited direct contacts with the project.

### **3. RESULTS OF THE EVALUATION BY FIVE CRITERIA**

#### **3-1 RELEVANCE**

Relevance is considered to be **High** for the following reasons.

- Necessity: The project is in line with the needs of Pakistan and Panjab that promote skill development in middle level technical personnel and with the needs of relevant target groups. Their needs remain unchanged since 2008 when the project was formulated.
- Priority: The project is consistent with policies in Pakistan. The relevant policies remain unchanged; MTFD as national development policy, Vision 2030 as industrial/labour policy and Skilling Pakistan 2009-2012 as TVET policy stand as present guiding policies as before. In the Skilling Pakistan, 20 reforms are proposed to achieve objectives 1) Providing relevant skills for industrial & economic development, 2) improving access, equity and employability, and 3) Assuring Quality. A concept of establishing industry specific Centers of Excellence is one of the 20 reforms to achieve the number 2 objective. The project is also consistent with the Japanese ODA policy. Japan's Country Assistance Program for Pakistan (2005) stands as present Japanese ODA policy for Pakistan. The policy remains unchanged since formulation of the project. As part of its priority areas, "support for higher education and technical training to promote the expansion of the middle class" is listed.
- Appropriateness of approach: The project strategy has been mostly appropriate. Selection of GCT R.R. is at first questionable as the physical conditions such as old facilities and narrow campus are



disadvantages as COE. However it is still judged to be appropriate as GCT R.R. has a long history, having rich faculty and is centrally situated with easy access. Such advantages supersede physical disadvantages, and the project has contributed toward upgrading of the facilities to fill the gap.

- Under the TEVTA's coordination, Mechanical and Architecture departments of GCT R.R. have been selected and appointed for JICA's assistance among various other development partners. There is no duplication with any other donors.
- The planned Grant Aid supported by Japanese Government for GCT R.R. is expected to have a synergy effects.

### 3-2 EFFECTIVENESS

Effectiveness is considered to be **Potentially High** if the activities for the 2<sup>nd</sup> half of the Project are implemented as planned for the following reasons:

- 1) Achievement of Project Purpose: Project Purpose is likely to be achieved in the light of 3 objectively verifiable indicators by the end of the Project as described earlier, if the activities for the 2<sup>nd</sup> half of the Project are implemented as planned.
- 2) Verification of logics : It is logical. As a result of 4 Outputs, Mechanical and Architecture courses of GCT R.R. will be strengthened to provide quality in technical education as COE, if GCT's management system (Output 1), TMC (Output 2), and placement support (Output 3) are strengthened and dissemination exercises (Output 4) are done.
- 3) Important Assumption: TEVTA has issued a notification to restrain transfer of trainers developed and upgraded by the Project.

### 3-3 EFFICIENCY

Efficiency is considered to be **High** for the following reasons:

- 1) Achievement of Outputs: Overall, outputs have been produced as planned for Output 1 and 2. Activities will be implemented to achieve Output 3 and 4 in the 2nd half of the project.
- 2) Inputs from Japanese side: Inputs from Japan have been mostly appropriate except for delay in fielding Japanese experts.
- 3) Inputs from Pakistani side: Inputs from Pakistan have been mostly appropriate except for frequent changes of C/Ps (particularly PD and PM) including those who participated in C/P training in Japan.

### 3-4 IMPACT

Prospect for achieving impact is considered to be **Potentially High** if TEVTA continues its commitment to sustain and disseminate the project outputs for the following reasons:

- Prospect of achievement of Overall Goal: It is likely to be achieved. In fact, revised curriculum (1st year Mechanical) has already been introduced to other institutes since last year. For subsequent introduction of 2nd and 3rd year revised curriculum, TEVTA has already initiated to make a concrete plan of actions with budget requirements.
- Positive impact: Positive impact is on gender issues. First ever admission of female students in Architecture department in GCT R.R. took place. In 2010, the 1st batch of female students entered GCT R.R. and the 2nd batch will be recruited this year as well. This was made possible with strong



commitment and support from TEVTA and GCT, R.R. Although in private and higher educational institutions, co-education is common in Panjab and Pakistan, there was not opportunity for females to enter government college like GCT R.R. where they can study at a reasonable cost (fees are much lower than those in private) with good educational environment which opens up their future opportunities.

### 3-5 SUSTAINABILITY

Sustainability is considered to be **Potentially High** if technical capacity is further developed and if TEVTA and GCT continue its commitment, for the following reasons:

- 1) Policy aspect: Policy environment/institutional settings are likely to continue, which is all conducive to the project.
- 2) Organizational and financial aspect:
  - Development of human resources has been steadily progressing in the project and expected to continue to do so even after the project to reach an appropriate level to disseminate in the future by C/P organizations.
  - C/Ps organizations and personnel of TEVTA and GCT R.R. have a strong sense of ownership having directly executing role in the project implementation.
  - TEVTA's next year budget is approximately 2.25 billion Rp for development budget and 4.5 billion for non-development budget for the year 2011-12, this is the same level as this year.
  - GCT is likely to cover the costs that have been borne by the project but need to be met by themselves after the project ends.
  - There is a concern whether GCT R.R. can systematically and organizationally execute maintenance work including budget appropriation because more equipment requires more budget for maintenance.
- 3) Technical aspect:
  - The methods of technical assistance have been well accepted and appropriate.
  - For Mechanical department, 10 out of 19 subjects are revised that require new skills and knowledge. For these 10 subjects, at this moment, there are 3 potential master trainers and rest (up to 10 at least) will need to be trained.
  - For Architecture department, there are 10 instructors including newly recruited, and female instructors, who have a good knowledge and skills, as well as well motivated. They will be able to perform as mater trainers.
  - Overall commitment of C/Ps, both GCT R.R. and TEVTA demonstrate very well and dissemination exercise will be in place if required financial, time-wise conditions are met, and a concrete plan for moving forward is developed by TEVTA.
  - Dissemination into other institutions in Panjab is primarily the TEVTA's responsibility and TEVTA already initiated to disseminate revised curriculum and continue to do so by preparing a plan of actions with budget requirements. The project will also start, other than the public relations work (Newsletters and Website), holding seminars after completing the one cycle of TMC in the 2nd half of the project.
  - Dissemination at Federal level is beyond project purview and Pakistan side will take care.





### 3-6 CONTRIBUTING FACTORS

Major contributing factors for enhancing the effects of the Project are as follows:

- 1) Strong initiative of Chairperson, TEVTA: With an appointment of present Chairperson in Aug. 2009 who has a good understanding of and support to the project, his strong initiative and commitment has contributed quite a lot to the efficient and effective implementation of the project.
- 2) Strong support from TEVTA and GCT: Overall commitment of TEVTA and GCT staff has been notably high during the first half of the Project.
- 3) Strong support from TEVTA and GCT in female student admission: first ever female admission was not made possible without rigorous facilitation and strong commitment by TEVTA and GCT. Initially, the proposal on female quota was 10%, but finally increased to 40% by TEVTA board of management.
- 4) Staffing of trainers: For Mechanical Department, three new trainers with bachelor degree were recruited in April 2011 and they are trained as master trainers. And five more new trainers are requested to be recruited. For Architecture Department, 6 new instructors with Bachelor degrees were recruited in Apr. 2011, adding up to a total of 10 instructors in the department including 4 instructors present in the beginning. They can perform as master trainers. Newly posted, young female instructors together with 2 since last year also have a good effect on promoting the admission of female students.

### 3-7 HAMPERING FACTORS

The Project team faced the following potential factors that could have hampered the Project activities. However, the Project team managed to overcome these issues with efforts, thus they did not hamper the progress of the Project in a serious manner.

- 1) Delay in fielding Japanese Experts: the project started in Dec. 2008 without Chief Advisor who finally arrived in Apr. 2009. Expert on Mechanical arrived in Apr. 2009, just after the completion of the TNA. Arrival of Expert on Architecture was further delayed until Sep. 2009 even after the completion of the 1st year curriculum revision.
- 2) Frequent changes of C/Ps (particularly PD and PM): There were frequent changes in the position of Project Director (3rd from the original appointee) and Project Manager (3rd from the original one).

## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4-1 CONCLUSIONS

The conclusion of the evaluation is summarized as follows:

Summary of Five Evaluation Criteria

Criteria	Evaluation Results
1. Relevance	High
2. Effectiveness	Potentially High if the activities for the 2 <sup>nd</sup> half of the Project are implemented as planned
3. Efficiency	High
4. Impact	Potentially High if TEVTA continues its commitment to sustain and disseminate the project outputs

5. Sustainability	Potentially High if technical capacity is further developed and if TEVTA and GCT continue its commitment
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Relevance is rated high because the project continues to be in line with the needs of Pakistan and the policy of the government. The project approach has been mostly appropriate. Effectiveness is rated potentially high if the activities for the 2<sup>nd</sup> half of the Project are implemented as planned, as the Project has so far produced outputs as planned. Efficiency is rated high as the inputs from both sides are allocated and utilized efficiently overall. Impact is rated potentially high if TEVTA continues its commitment to sustain and disseminate the project outputs, as the dissemination efforts already started by applying first year revised curriculum to other institutes in Punjab. Sustainability is rated potentially high if technical capacity, especially that of trainers, is further developed and if TEVTA and GCT continue its commitment.

In conclusion, the project implementation and achievements have been highly evaluated. It should be noted, however, that there are many activities planned for the latter half of the Project, particularly for Output 1, 3 and 4. In addition, the planned Grant Aid project for GCT will provide equipment to and construct a building at GCT, with which the Project should have a strong linkage. The related activities of the Project, for example, to ratify list of equipment by academia and industry (2-5) and to formulate inventory of equipment an upgrade maintenance system (2-6), should be strengthened in this regard. Activities that need to be accelerated/attended carefully in the 2nd half of the project are as follows:

(Output 1)

- 1-1. Constitute a working group for promoting collaboration between GCT and industries.
- 1-2. Conduct collaborative activities with industry.
- 1-3. Enhance relations of GCT and its activities with industry and students.
- 1-4. Establish and use computerized data on institute for institute management.

(Output 2)

- 2-5. Ratify list of equipment by academia and industry
- 2-6. Formulate inventory of equipment an upgrade maintenance system
- 2-7. Train master trainers
- 2-11. Develop manuals on training management cycle.

(Output 3)

- 3-1. Introduce a tracer survey system.
- 3-2. Establish database on job information.
- 3-3. Conduct career counseling for students.
- 3-4. Promote career day.

(Output 4)

- 4-1. Hold seminars to promote the activities / outputs of the project.

**4-2 RECOMMENDATIONS**

- (1) To develop detailed plan of operation: In order to successfully implement the above mentioned activities and to eventually achieve the project purpose within a limited timeframe, detailed plan of operation with names of responsible person for each activity should be prepared and agreed upon by all concerned parties by the end of July, 2011.
- (2) To closely monitor the plan: This plan of operation should be then closely monitored by all concerned parties periodically. For monitoring, it is recommended that the indicators in the revised PDM are



monitored to measure its achievements against them once every six months. The data should be collected for male and for female separately to capture the impacts on different gender.

- (3) To have closer communication among different stakeholders: It is also recommended that JCC be held as stipulated in the M/M. In addition to that, it is recommended that regular meetings between JICA and relevant C/P organizations should also be held, preferably including TEVTA District Manager and Zone Manager.
- (4) To continuously ensure budget for maintenance: Systematic and organizational execution of maintenance work of equipment and facilities including budget appropriation should be ensured with continuous commitment by TETVA and GCT.
- (5) Proper assignment of trainers: Considering sustainability of the function of GCT as COE, trained trainers should be retained as an important component. For that, TEVTA is required to put efforts for GCT to have qualified and trained trainers.

(END)



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ANNEX-1: Project Design Matrix (PDM)

10/05/2009  
GCT Railway Road/TEVTA/NA VTEC/JICA  
Duration: December 2008 - November 2013

Project Title: Project for Development of Center of Excellence for Technical Education

Narrative Summary	Indicators	Means	Important Assumption
<b>Overall Goal</b> Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other courses in GCT.	Number of courses other than Mechanical and Architecture which introduced the approach of the project	1-1. Curriculum, syllabus, textbook, and other materials 1-2. Interview / interaction of principal and teaching staff	Policy and priority area of the Pakistan government on human resource development will not be changed.
<b>Project Purpose</b> Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as CoE.	Satisfaction of industry Satisfaction of ex-students xx% passing exam rate of students in Mechanics xx% passing exam rate of students in Architecture	2-1. Result of employees' satisfaction survey 2-2. Result of graduates' satisfaction survey 3-3. Result of annual exam	Economic development and labor demand for the middle level technical personnel will be continued.
<b>Outputs</b>			
1. Management system of GCT is strengthened as a CoE which can offer technical education relevant to industrial needs.	1-1. Number of cooperative firms 1-2. Type of partnership with firms 1-3. Regular meeting with staff 1-4. Computerized data on students and teachers	1-1-1. List of cooperative firms 1-1-2. Visiting report 1-2. Record of collaborative activities 1-3. Record of the meeting 1-4. Database of the institute	Trained staff will remain working for GCT.
2. Training management cycle of Mechanical and Architecture courses is strengthened.	2-1. TEVTA and GCT utilize manuals on training management cycle, and manage and promote the cycle by themselves. 2-2. Satisfaction rate of students on training courses 2-3. Employee satisfaction of trainees 2-4. Number of suggestions for improvement in training cycle	2-1. Manuals of training management cycle 2-2. Interview students 2-3. Interview employers 2-4. Monitoring report	
3. Placement support of GCT is strengthened.	3-1. Number of students who take career counselling 3-2. Computerized data on job information and job seeking 3-3. Satisfaction rate of placement support to students 3-4. Satisfaction rate of placement support to firms	3-1. Counselling record 3-2. Database on job information and job seeking 3-3. Questionnaire to students 3-4. Questionnaire to firms	
4. Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.	4-1. Number of seminars held 4-2. Number of participants participated in seminars 4-3. Understanding of the participants about contents of the seminars	4-1. Record of the GCT 4-2. Record of the seminar 4-3. Questionnaire to participants of the seminar	
<b>Activity</b>	<b>Inputs</b>		
1-1. Constitute a working group for promoting collaboration between GCT and industries.	<p>Japanese side:</p> <p>1. JICA Long term experts including: Chief Advisor / Coordinator Mechanical Architecture</p> <p>2. JICA Short term experts in necessary fields</p> <p>3. Necessary Equipment and machinery</p> <p>4. Counterparts training in Japan and/or third country for: counterparts/teaching staff of GCT</p> <p>Pakistan side:</p> <p>1. Counterparts including: General manager of operations of TEVTA and other related personnel of TEVTA Principal of GCT Teaching staff of the pilot courses Administrative staff</p> <p>2. Necessary Infrastructure for the Project including: Office facility equipped with office furniture, electricity supply, and direct telephone line, for the Project team</p> <p>3. Budget for the Project such as; Expenses for the implementation of the needs assessment on industry Consumable items for pilot courses Maintenance expenses for the equipment and machinery</p>	Equipment will be purchased, delivered, and installed as planned.  Counterparts of the Project will be allocated in GCT Railway Road/TEVTA Punjab Province.	
1-2. Conduct collaborative activities with industry.			
1-3. Enhance relations of GCT and its activities with industry and students.			
1-4. Establish database of institute			
1-5. Conduct skill competitions			
1-6. Conduct exhibitions of students' product			
2-1. Conduct needs assessment on industry.			
2-2. Revise curriculum for Mechanical and Architecture courses based on industrial needs.			
2-3. Revise syllabus, textbook, exam paper, and other teaching materials for Mechanical and Architecture courses based on industrial needs.			
2-4. Install equipment for Mechanical and Architecture courses.			
2-5. Formulate inventory of equipment and upgrade Maintenance system.			
2-6. Implement pilot courses in Mechanical and Architecture			
2-7. Train master trainers.			
2-8. Conduct training of teachers and students by the master trainers.			
2-9. Conduct monitoring and evaluation of the training.			
2-10. Develop manuals on training management cycle.			
3-1. Introduce a tracer survey system.			
3-2. Establish database on job information			
3-3. Conduct career counselling for students.			
3-4. Promote career day.			
4-1. Hold seminars to promote the activities / outputs of the project.			
			(Pre-condition)  Security will not be deteriorating in Pakistan.

**Annex-2: Project Design Matrix (PDM)**

Project Name: Project for Development of Center of Excellence (CoE) for Technical Education  
 Period: 5 years (Dec. 2008 - Nov. 2013)  
 Target Group: Direct - GCT Railway Road Lahore (hereafter GCT R.R.) and TEVTA Punjab  
 Indirect - NAVTEC, Industry, students

Revised on June 20, 2011 (Draft)

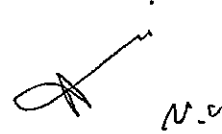
Narrative Summary	Objectively Verifiable Indicators	Means of Verifications	Important Assumptions
<b>Overall Goal</b> Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes (Mechanical and Architecture) in Punjab.	70% or more of DAE institutes (Mechanical & Architecture) in Punjab introduce the approach of the Project. (Approach: Outputs 1-4)	1. Syllabus and other teaching materials 2. Interview of principals of other institutes	Policy and priority area of the Pakistan government on human resource development will not be changed.
<b>Project Purpose</b> Mechanical and Architecture courses of GCT R.R. provide quality in technical education based on industrial needs as CoE.	1. 70% or more of firms considers performance of graduates of GCT R.R. after new curriculum introduction is higher than previous graduates. 2. 70% or more of graduates of GCT R.R. are satisfied with DAE course contents compatible to industrial needs. 3. Passing exam rates of students in Mechanical and Architecture increase.	1. Result of employers' satisfaction survey (end survey in April 2013) 2. Result of graduates' satisfaction survey (end survey in April 2013) 3. Result of annual exam	Economic development and labor demand for the middle level technical personnel will be continued.
<b>Outputs</b> 1. Management system of GCT R.R. is strengthened as a CoE which can offer technical education relevant to industrial needs.	1-1. Use of computerized data on students, teachers, equipment, job placement, etc. for school / department management 1-2. Ten (10) or more significant market players participate in working group for promoting collaboration between GCT and industries (5 in each technology) 1-3. Ten (10) or more annual collaborative activities with industry (industrial training of trainers: 2x2, lecture by industry: 4x2, industrial visit: 2x2, skill competition / Exhibition: 2) (5 in each technology) 1-4. A quarterly meeting of working group for promoting collaboration between GCT and industries 1-5. Public Relations - Quarterly project newsletters, Regularly updated College webpage	1-1. List of teachers with teacher qualification 1-2. Analyzed computer data for school/ department management 1-3. List of cooperative firms 1-4. Records of collaborative activities 1-5. Records of quarterly meetings 1-6. Mailing list of newsletter and webpage access record	Trained staff will remain working for GCT.
2. Training Management Cycle (TMC) of Mechanical and Architecture courses is strengthened.	2-1. Conducted Training Needs Assessment (TNA) 2-2. Revised curriculum based on industrial needs 2-3. Trained master trainers (15) for pilot courses 2-4. Trained teachers by master trainers 2-5. Revised teaching materials and exam papers 2-6. Installed equipment and maintenance activities 2-7. Monitored & evaluated pilot courses 2-8. Developed TMC manual	2-1. TNA reports 2-2. Revised curricula 2-3. Reports on teacher training 2-4. Teaching materials and exam papers 2-5. List of equipment and maintenance records 2-6. MRE reports on pilot courses 2-7. TMC manual	
3. Placement support of GCT is strengthened.	3-1. Computerized data on placement, internship, opportunities 3-2. 70% or more of students take career counseling 3-3. 70% or more of student satisfaction rate of placement support 3-4. 70% or more of employer satisfaction rate of placement	3-1. Database on placement service 3-2. Counseling record 3-3. Questionnaire to students 3-4. Questionnaire to firms	
4. Knowledge and experience of GCT R.R. is shared with other courses in GCT R.R. and other TVET institutes.	4-1. Two or more seminars held 4-2. 70% or more of DAE institutes (Mechanical & Architecture) in Punjab participate in seminars. 4-3. 70% or more of participants understand the seminar contents.	4-1. Record of the GCT 4-2. Record of the seminar 4-3. Questionnaire to participants of the seminar	
<b>Activity</b>	<b>Inputs</b>		
1-1. Constitute a working group for promoting collaboration between GCT and industries.	Japanese side: 1. JICA Long term experts including: Chief Advisor / Project Coordinator Mechanical Architecture 2. JICA Short term experts in necessary fields 3. Necessary Equipment and machinery 4. Counterparts training in Japan and/or third country for counterparts/teaching staff of GCT R.R.		Equipment will be purchased, delivered, and installed as planned.
1-2. Conduct collaborative activities with industry.			Counterparts of the Project will be allocated in GCT Railway Road/TEVTA Punjab Province.
1-3. Enhance relations of GCT and its activities with industry and students.			
1-4. Establish and use computerized data on institute for institute management.			
1-5. Conduct skill competitions			
1-6. Conduct exhibitions of students' product	Pakistan side: 1. Counterparts including: General manager of operations of TEVTA and other related personnel of TEVTA Principal of GCT R.R. Teaching staff of the pilot courses (Appropriate staffing in qualification) Staff for M&E and Job Placement Support Administrative staff 2. Necessary infrastructure for the Project including: Office facility equipped with office furniture, electricity supply, and direct telephone line, for the Project team Workshops for equipment installation and maintenance & renovation of facilities 3. Budget for the Project such as; Expenses for the implementation of the needs assessment on industry Expenses for curriculum revision Consumable items for pilot courses Maintenance expenses for the equipment & machinery and facilities		
2-1. Conduct needs assessment on industry.			
2-2. Revise curriculum for Mechanical and Architecture courses based on industrial needs as members of TEVTA Curriculum Revision Committee (CRC).			
2-3. Revise syllabus, exam paper and other teaching and learning resource materials for Mechanical and Architecture courses based on industrial needs.			
2-4. Install equipment for Mechanical and Architecture courses			
2-5. Ratify list of equipment by academia and industry			
2-6. Formulate inventory of equipment and upgrade maintenance system.			
2-7. Train master trainers			
2-8. Implement pilot courses in Mechanical and Architecture			
2-9. Conduct training of teachers by the master trainers			
2-10. Conduct monitoring and evaluation of the training.			
2-11. Develop manuals on training management cycle.			
3-1. Introduce a tracer survey system.			
3-2. Establish database on job information.			
3-3. Conduct career counseling for students			
3-4. Promote career day			
4-1. Hold seminars to promote the activities / outputs of the project			(Pre-condition) Security will not be deteriorating in Pakistan.

*[Handwritten signature]*  
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Annex-3

**List of Japanese Experts**

	Name	Designation/Expertise	Assignments Period
1	Mr. Fumio MIZUNO	Short Term Expert on Training Needs Assessment	12 Jan. 2009 – 11 Apr. 2009
2	Mr. Takeshi SOMUKAWA	Long Term Expert on Chief Adviser/Project Coordinator	1 Apr. 2009 – 30 Jun. 2011
3	Mr. Yuji KUROKAWA	Long Term Expert on Chief Adviser/Project Coordinator	16 May 2011 – 20 Apr. 2013 (Arrived in 23 May 2011)
4	Mr. Koji SAWADA	Long Term Expert on Mechanical Engineering	14 Apr. 2009 – 13 Apr. 2012
5	Mr. Minoru ITO	Long Term Expert on Architecture	30 Sep. 2009 – 30 Sep. 2012
6	Mr. Hiroyuki MATSUDA	Short Term Expert on 1) Architecture 2) Architecture 3) Architecture/School Management	1) 5 May 2009 – 10 May 2009 2) 6 Aug. 2009 – 21 Aug. 2009 3) 2 Mar. 2010 – 12 Mar. 2010




Project for Development of Center of Excellence for Technical Education in Pakistan

Annex- 4

List of CP Training Participants

No.	Name	Organization	Designation	Duration	Remarks
1	Mr. Saeed Ahmad Alvi	TEVTA	Chairman	January 31 -Feb. 10, 2010	
<b>Project Director</b>					
2	Mr. Tanvir Ahmad Zaffar	TEVTA	GM-Operations	Feb.8-Feb.21 2009	Left
3	Mr. Khawaja Adnan Zaheer	TEVTA	GM-F&A/GM-Op	January 31 -Feb. 18, 2010	Left (Back to parent dept.)
<b>Project Focal Person in TEVTA</b>					
4	Mr. Aqib Sharif	TEVTA	Deputy Manager M&E	Feb.20-March 5, 2011	
<b>Project Manager</b>					
5	Mr. Muhammad Ali Abbasi	TEVTA/GCT	Principal	Feb.8-Feb.21 2009	Left (Retired)
6	Engr. Tauqeer Khan	TEVTA/GCT	Principal	January 31 -Feb. 18, 2010	Left (Sick)
7	Engr. Arif Ali Nadeem	TEVTA/GCT	Principal	Feb.20-March 5, 2011	
<b>Architecture Department</b>					
8	Mr. Mahmood Akhter Khan Saleem	TEVTA/GCT	HOD	Feb.8-Feb.21 2009	
9	Mr. Abdul Jabbar	TEVTA/GCT	Senior Instructor	January 31 -Feb. 18, 2010	
<b>Mechanical Department</b>					
10	Mr. Muhammad Aqeel	TEVTA/GCT	HOD	Feb.8-Feb.21 2009	
11	Mr. Amjad Elahi	TEVTA/GCT	Senior Instructor	January 31 -Feb. 18, 2010	

COO: Chief Operating Officer  
 GM-Op: General Manager – Operations  
 GM-F&A: General Manager – Finance & Administration  
 HOD: Head of Department

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## Annex-5-1

## The List of Equipments (D.A.E. Mechanical, JICA-GCT Project)

No.	Name of Equipment	Manufacturer's Name	Reference Brand Name	Q'ty	Unit Price (Rs.)	Total Price (Rs.)	Installation Time
1	CAD Software	AUTODESK	AutoCAD Inventor	50	-	5,000,000	Jan. 2010
2	Computer for CAD	DELL	VOSTRO 220	50	120,000	6,000,000	Jan. 2010
3	TIG Welding Machine	DAIHEN	ACCUTIG-300P	2	350,000	700,000	Mar. 2010
4	MIG welding Machine	DAIHEN	XD-350	2	400,000	800,000	Mar. 2010
5	Air Compressor	COMP AIR	DELCOS PRO	1	1,800,000	1,800,000	Apr. 2011
6	Machining Center	DAHLIH	MC-720	3	5,000,000	15,000,000	Jun. 2011
7	Turning Center	GOODWAY	GLS-150	2	6,000,000	12,000,000	Jun. 2011
8	CAD/CAM Software	DELCAM	FEATURECAM	50	-	5,000,000	Jun. 2011
TOTAL						46,300,000	



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## Project for Development of Center of Excellence for Technical Education in Pakistan

5-Jan-10

## Equipment in Survey Instrument (Architecture)

No.	Item	Specification	Est. Unit Price	Qty	Est. Total Price
1	DAD TX-18 Telescopic	Carrying case, Made in China	50,000	5	250,000
2	DAD TX-20 Plane Table	Telescopic Stand in Carrying bag, Made in China	5,000	5	25,000
3	Walky Talky Motorola	(Set of 2) Model T5720	7,500	5	37,500
4	TOPCON AT-G3S, Automatic Level	Magnification 32X, erect image, focus, clear objective aperture 40mm, field of view 1-30'	75,000	5	375,000
5	Topcon Optical Micrometer (AT-G)	Counter weight, Complete in a case	85,000	1	85,000
6	Topcon GPT-7005i Imaging Station	targetless electronic total station with Windows operating system	1,500,000	1	1,500,000
7	Topcon DT-209, Electronic Digital Theodolite	Magnification 30X, LCD Display, one second reading Water Proof Construction, with case	155,000	5	775,000
8	Topcon DM-S2 Electronic Distance Meter	Measuring range 3.5KM, mounting on DT-209	395,000	1	395,000
9	Topcon RL-H3C	Theodolite Coordinates with Laser Detector	65,000	5	325,000
10	DAD TX-12 Telescopic Compass	hard carrying case	20,000	5	100,000
11	Public SL-5 Prismatic Compass	PAK MADE	6,000	5	30,000
12	Plain Table Set Superior	PAK MADE	8,500	5	42,500
13	DAD Metal Tripod AC-10 for Levels & Theodolites	heavy duty Made in China	4,500	5	22,500
14	Myzog Model S6 Leveling Staff	made in Japan	3,000	5	15,000
15	Tripod for Compass	PAK MADE	1,000	5	5,000
16	Hand Level with Vertical Circle and bubble Model BS-2 superior	carrying bag, Made in Japan	4,500	5	22,500
	Total				Rs 4,005,000

List of Expenditure by Japanese Side  
Operational Cost

2011.6.12

Temporary Accountant: Takashi Somukawa

Expense Item	JFY 2008				JFY 2009 (April 2009 - March 2010)				JFY 2010 (April 2010 - March 2011)				Total (PKR)
	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total		
Overseas Activities Cost	60,000.00	1,513,639.00	2,000,302.00	2,441,170.00	3,881,738.60	9,996,849.60	1,788,910.60	814,262.25	1,950,516.00	3,387,398.00	7,291,076.85	17,287,926.45	
Printing	0.00	756.00	2,516.00	0.00	0.00	3,272.00	800.00	950.00	340.00	21,145.00	23,235.00	26,507.00	
Miscellaneous (incl. equipment item price less than Rs.50,000)	0.00	275,414.00	487,051.00	1,705,139.00	1,192,101.00	3,689,705.00	909,815.00	584,351.25	1,116,670.00	2,439,451.00	5,049,385.25	9,665,100.25	
Equipment (item price Rs.50,000 or more)	60,000.00	1,233,760.00	1,517,900.00	729,550.00	2,770,800.00	6,312,010.00	803,900.00	195,790.00	228,900.00	890,900.00	2,125,490.00	3,441,900.00	
Maintenance	0.00	0.00	9,793.00	0.00	13,642.00	23,435.00	21,550.00	29,982.00	1,000.00	23,709.00	76,241.00	99,676.00	
Transport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sundry Expenses	0.00	3,709.00	3,042.00	6,481.00	5,195.60	18,427.60	3,747.60	2,189.00	3,606.00	3,173.00	12,715.60	31,143.20	
Domestic Travel Allowance	0.00	69,000.00	22,800.00	30,400.00	22,800.00	145,000.00	7,600.00	37,000.00	15,200.00	57,800.00	117,600.00	269,600.00	
Air Fare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Fees and honorarium	0.00	2,173.00	61,660.00	62,520.00	59,920.00	180,473.00	190,062.00	310,919.17	230,861.69	346,298.00	1,090,100.66	1,260,573.66	
Communication cost	0.00	0.00	40,873.00	90,950.19	41,423.00	172,652.19	31,313.00	33,922.00	38,228.00	19,571.00	118,032.00	290,684.19	
Rent	0.00	22,700.00	34,660.00	33,000.00	21,000.00	111,360.00	12,000.00	40,475.00	43,025.00	70,800.00	166,300.00	277,660.00	
Refreshments	0.00	0.00	7,810.00	8,604.00	0.00	16,414.00	10,205.00	3,140.00	0.00	16,173.00	29,518.00	45,982.00	
Construction	0.00	0.00	188,300.00	131,760.00	355,790.00	675,840.00	140,465.00	161,225.00	656,578.00	24,500.00	1,182,270.00	1,859,610.00	
Total	60,000.00	1,607,512.00	2,356,611.00	2,797,824.19	4,476,671.60	11,238,616.79	2,130,556.60	1,400,944.42	2,699,406.60	3,924,400.00	9,995,397.71	21,224,016.90	

Project for Development of Center of Excellence for Technical Education in Pakistan

Annex-7

**List of Counterpart Personnel**  
(Main Counterpart Personnel)

as of June 10, 2011

No.	Name	Organization	Designation	Assigned Period	Remarks	
1	1	Mr. M. Athar Tahir	NAVTEC	Executive Director	Dec. 2008-??	
2	2	Mr. Tariq Shafi Chak	NAVTEC	Executive Director	Present	
3	1	Mr. Muhammad Abid Javed	NAVTEC	Regional Director Lahore		
4	2	Dr. Rashid Mansoor	NAVTEC	Regional Director Lahore	Present	
5	1	Mr. Mohsin M. Syed	TEVTA	Chairman	Dec. 2008 - July 2009	
6	2	Mr. Saeed Ahmad Alvi	TEVTA	Chairman	August 2009 -Present	
<b>Project Director</b>						
7	1	Mr. Tanvir Ahmad Zaffar	TEVTA	GM-Operations	Dec. 2008 - July 2009	End of contract
8	2	Mr. Khawaja Adnan Zaheer	TEVTA	GM-F&A/GM-Op	August 2009 -Feb. 2011	Back to Parent Dept.
9	3	Mr. Muhammad Abid Javed	TEVTA	COO/GM-Op	Feb. 2011- Present	
<b>Project Focal Person in TEVTA</b>						
10	1	Mr. Aqib Sharif	TEVTA	Deputy Manager M&E	Dec. 2008 - Present	
<b>Project Manager</b>						
11	1	Mr. Muhammad Ali Abbasi	TEVTA/GCT	Principal	Dec. 2008 - April 2009	Retired
12	2	Prof. Muhammad Javed Iqbal	TEVTA/GCT	Principal in charge	April 2009 - June 2009	
13	3	Engr. Tauqeer Khan	TEVTA/GCT	Principal	June 2009 - July 2010	Sick
14	4	Mr. Muhammad Tahir	TEVTA/GCT	Principal In charge	July 2010 - August 2010	
15	5	Engr. Arif Ali Nadeem	TEVTA/GCT	Principal	August 2010 - Present	
<b>Architecture Department</b>						
16	1	Mr. Mahmood Akhter Khan Saleem	TEVTA/GCT	HOD	Dec. 2008 - Present	
17	2	Mr. Abdul Jabbar	TEVTA/GCT	Senior Instructor	Dec. 2008 - Present	
<b>Mechanical Department</b>						
18	1	Mr. Muhammad Aqeel	TEVTA/GCT	HOD	Dec. 2008 - Present	
19	2	Mr. Amjad Elahi	TEVTA/GCT	Senior Instructor	Dec. 2008 - Present	

COO: Chief Operating Officer

GM-Op: General Manager – Operations

GM-F&A: General Manager – Finance & Administration

HOD: Head of Department

## Annex-8

**TECHNICAL EDUCATION AND VOCATIONAL TRAINING AUTHORITY  
GOVERNMENT COLLEGE OF TECHNOLOGY RAILWAY ROAD LAHORE  
Status of AR/SR Works as it stood on 26-06-2011**

S. No.	Detail of works	Contract Value Rs:	Status
1.	Development of CAD/CAM,CNC & TOT Lab In Jubli Hall	3267599	Completed
2.	Installation of new water supply line in college campus 3 Inch dia.	189075	Completed
3.	Renovation of Welding shop <ul style="list-style-type: none"> <li>• Replacement of roof and window pans.</li> <li>• Distemper and paint.</li> </ul>	566192	Completed
4.	<ul style="list-style-type: none"> <li>• Repair of bath room yaqoob hostel</li> <li>• Development of Female toilet</li> <li>• Distemper, paint and replacement of window pans.</li> <li>• Installation of new water supply line in staff colony 2 Inch dia.</li> <li>• Paint of cycle stand structure.</li> </ul>	438058	Completed
5.	New construction of TIG/MIG lab in college campus	1342798	Completed
6.	Renovation <ul style="list-style-type: none"> <li>• Architecture corridor</li> <li>• Architecture computer studio</li> <li>• Drawing Hall-I</li> <li>• Construction of new lab for Architecture (Construction lab)</li> </ul>	1283448/-	Revised wok order placed on 04-06-2011
7.	Demolition of Jublee Hall	167072	Completed
8.	Installation of 630 kVA transformer	3587000	Tender Notice has been advertised.
9.	<ul style="list-style-type: none"> <li>• RENOVATION OF JIBLEE HALL</li> <li>• Emulsion of CNC lab</li> <li>• Removal of outer doors of CNC lab with dustproof and lockable system.</li> <li>• Paint of shutter doors of CNC lab.</li> </ul>	224292-00	Budget is available & tender notice has been prepared and sent to news paper for publication.
10.	• Repair of cracks in Auto lab-1	20801-00	Total Rs: 742360-00
11.	• Emulsion and paint of T-Tep & Room 001.	81764-00	
12.	• Installation of WHB, sink and partition of female wash room on 2 <sup>nd</sup> floor	107969-00	
13.	• Renovation of male wash room adjacent to Faisal Hall.	197900	
14.	• Repair of concrete floor in front of Yaqoob hostel	94725-00	
15.	• Construction of masonry channel for sewerage system of washroom of yaqoob hostel	14909-00	
16.	• Single phase supply for basement from 110KVA generator	66140	
17.	• Re allocation of fuel charges 65kVA generator Jublee Hall	300000	
18.	• Sound system for faisal hall	403000	Quotations opened work in progress
19.	• Replacement of rusty pipe line on college roof	51386	Reallocation granted. Now budget is available in college.
20.	• Paint & Emulsion of college lobby in front of reception	87825	Tender notice has been published in news paper.
21.	• Rump of Jublee Hall	92108	Completed
22.	• Earthing for CNC Lab	63778	Completed
23.	• Faisal Hall paint & emulsion	70393	Completed
24.	• False ceiling of CNC lab Jublee Hall	221050	Tender is being prepared now-a-days.
25.	• Emulsion and paint of Architecture Computer studio	196413	
26.	• Repair of wall of demolished area besides Jublee hall	231652	Completed
27.	• Paint and emulsion of lobby	50000	Completed
28.	• Paint and emulsion of T-Tep corridor and JICA co-coordinator office	50000	Completed

Total approx. Rs.10567347

Note: There is another 70,000 Rs directly spent by TEVTA.

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Annex-9

Page 1 of 4

Revised Mar. 2010, Revised June 2011

Plan of Operation 2008.12 - 2013.11

Project for Development of Center of Excellence for Technical Education  
NAVTEC / TEVTA / GCT Railway Road / JICA

	JFY 2008				JFY 2009				JFY 2010				JFY 2011				JFY 2012				JFY 2013			
	IV		III		II		I		IV		III		II		I		IV		III		II		I	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Output 1. Management system of GCT is strengthened as a CoE which can offer technical education relevant to industrial needs.																								
1-1. Constitute a working group for promoting collaboration between GCT and industries.																								
1-1-1. Hold seminars for industry to explain the project.																								
1-1-2. Constitute a working group (mechanical & architecture) and clarify its functions. Update the working																								
1-2. Conduct collaborative activities with industry.																								
1-2-1. Regular meetings of the working group are held.																								
1-2-2. Promote collaborative activities such as inviting industry people to GCT as lectures, etc.																								
1-3. Enhance relations of GCT and its activities with industry and students.																								
1-3-1. Review present public relation activities and materials and make a plan for its enhancement.																								
1-3-2. Revise public relation (PR) materials such as quarterly project news, etc. then conduct PR.																								
1-4. Establish database of institute																								
1-4-1. Review present information management situation such as information on teachers, students, graduates,																								
1-4-2. Prepare a framework on database of institute management.																								
1-4-3. Develop a computer database for institute management.																								
1-4-4. Update the database.																								
1-5. Conduct skill competitions																								
1-5-1. Make a plan (purpose, trade, participants, schedule) and prepare skill competitions.																								
1-5-2. Conduct skill competitions.																								
1-6. Conduct exhibitions of students' products.																								
1-6-1. Make a plan (schedule) and prepare for exhibition.																								
1-6-2. Conduct exhibitions.																								


Plan of Operation 2008.12 - 2013.11

	JFY 2008				JFY 2009				JFY 2010				JFY 2011				JFY 2012				JFY 2013							
	2008				2009				2010				2011				2012				2013							
	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III				
Output 2. Training management cycle of Mechanical and Architecture courses is strengthened.																												
2-1. Conduct needs assessment on industry.																												
2-1-1. Formulate a committee of needs assessment.																												
2-1-2. Review and revise the present (past) procedure of needs assessment.																												
2-1-3. Conduct needs assessment based on 2-1-2.																												
2-1-4. Make a report of needs assessment and share it with concerned people.																												
2-2. Revise curriculum for Mechanical and Architecture courses based on industrial needs.																												
2-2-1. Formulate a committee of curriculum revision.																												
2-2-2. Review the present curriculum, past curriculum revision procedure and the results of needs assessment.																												
2-2-3. Revise curriculum based on the results of needs assessment.																												
2-2-4. Revise the curriculum further based on the results of M & E for pilot courses.																												
2-2-5. Develop curriculum revision manual based on 2-2-1 to 2-2-4.																												
2-3. Revise syllabus, textbook, exam paper, and other teaching materials for Mechanical and Architecture courses based on industrial needs.																												
2-3-1. Provide teaching materials development room for instructors.																												
2-3-2. Review syllabus, text books and other reference materials.																												
2-3-3. Procure reference books, CDs, etc. based on the review.																												
2-3-4. Revise syllabuses.																												
2-4. Install equipment for Mechanical and Architecture courses.																												
2-4-1. Review the existing equipment of GCT.																												
2-4-2. Make a procurement plan with quotations.																												
2-4-3. Procure necessary equipment.																												

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Plan of Operation 2008.12 - 2013.11

	JFY 2008				JFY 2009				JFY 2010				JFY 2011				JFY 2012				JFY 2013							
	2008				2009				2010				2011				2012				2013							
	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III				
2-5. Formulate inventory of equipment and upgrade Maintenance system.																												
2-5-1. Review present equipment maintenance system of GCT.																												
2-5-2. Upgrade equipment maintenance system including inventory formulation. Develop maintenance manual.																												
2-6. Implement pilot courses in Mechanical and Architecture																												
2-6-1. Review and revise a number of classes, class size, teacher loads, time tables for pilot courses.																												
2-6-2. Review and revise facility and equipment for practical work for pilot courses.																												
2-6-3. Conduct lecture and practical trainings in mechanical and architecture of GCT.																												
2-7. Train master trainers. (TOT)																												
2-7-1. Review and revise present staff arrangement, teacher training, teacher ability assessment method of GCT.																												
2-7-2. Make a plan on training of mater trainers.																												
2-7-3. Select master trainers.																												
2-7-4. Conduct master trainer training by JICA experts, in-country training, etc.																												
2-8. Conduct training of teachers and students by the master trainers.																												
2-8-1. Make a plan for teacher training by master trainers.																												
2-8-2. Conduct teacher training by master trainers.																												
2-9. Conduct monitoring and evaluation of the training.																												
2-9-1. Review and revise present monitoring system of the training of GCT.																												
2-9-2. Formulate a team of monitoring and evaluation and develop /revise M&E Form.																												
2-9-3. Conduct monitoring and evaluation and suggest necessary measures to improve.																												
2-9-4. Revise manuals of M & E. to make a final one.																												
2-10. Develop manuals on training management cycle.																												
2-10-1. Compile training management experiences to develop training management cycle (Plan, Do, Check.																												

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Plan of Operation 2008.12 - 2013.11

	JFY 2008				JFY 2009				JFY 2010				JFY 2011				JFY 2012				JFY 2013			
	IV		III		II		I		IV		III		II		I		IV		III		II		I	
	12	11	10	9	8	7	6	5	4	3	2	1	12	11	10	9	8	7	6	5	4	3	2	1
<b>Output 3. Placement support of GCT is strengthened.</b>																								
3-1. Introduce a tracer survey system.																								
3-1-1. Review and revise present tracer survey system for graduates' employment situation.																								
3-1-2. Conduct the tracer survey for graduates and feedback the results to database developed in 3-2.																								
3-2. Establish database on job information.																								
3-2-1. Assign a person(s) in charge of database.																								
3-2-2. Review present situation of job information for students and develop method to compile the information.																								
3-2-3. Compile job information. (Develop database.)																								
3-3. Conduct career counselling for students.																								
3-3-1. Assign a person(s) for career counselling.																								
3-3-2. Collect job information for students.																								
3-3-3. Develop/revise career counselling method including internship																								
3-3-4. Conduct career counselling to students.																								
3-4. Promote career day.																								
3-4-1. Make a plan for career day.																								
3-4-2. Prepare career day (invitation to companies, PR, etc.)																								
3-4-3. Conduct career day.																								
<b>Output 4. Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.</b>																								
4-1. Hold seminars to promote the activities / outputs of the project																								
4-1-1. Make a plan for a seminar.																								
4-1-2. Prepare the seminar (materials, invitation, venue, etc.)																								
4-1-3. Conduct the seminar																								



Evaluation Grid: Mid Term Review: The Project for Development of Center of Excellence (CoE) for Technical Education in Pakistan

Annex-10-1

Evaluation Grid (1,2): Results of Evaluation

1. PERFORMANCE		Questions	Necessary Data	Results
Main	Sub-questions			
Input	Have inputs from the Japanese Side been implemented as planned ?	Actual Inputs in comparison with the planned ones in R/D <ul style="list-style-type: none"> <li>Japanese Experts</li> <li>C/P training in Japan</li> <li>Provision of equipment</li> <li>Operational costs for the Project</li> </ul>	<ul style="list-style-type: none"> <li><u>Japanese Experts:</u> A total of 6 Experts have been fielded for 5 positions: 1) Chief Advisor-cum-Project Coordinator (long-term, 2 persons in total), 2) Training Needs Assessment (short-term), 3) Mechanical Engineering (long-term), 4) Architecture (long-term), and 5) Architecture (short-term). For details, please see Annex-3.</li> <li><u>C/P Training in Japan:</u> A total of 11 C/Ps attended the Counterpart Training in Japan from TEVTA (4) and GCT (7) in 2009, 2010 and 2011. For details, please see Annex-4.</li> <li><u>Equipment:</u> A total of 50,305,000 Rs worth equipment has been provided including Machining Centers, Turning Centers for Mechanical, and Survey Instruments for Architecture. For details, please see Annex- 5</li> <li><u>Operational Costs:</u> A total of 21,224,016.50 Rs has been spent for operation, travel allowance, communication cost, rent and construction and small equipment. For details, please see Annex-6.</li> </ul>	
Inputs	Have inputs from the Pakistan Side been implemented as planned ?	Actual Inputs in comparison with the planned ones of R/D <ul style="list-style-type: none"> <li>Assignment of counterpart personnel</li> <li>Office and facilities provided for the Project</li> <li>Operational costs for the Project</li> </ul>	<ul style="list-style-type: none"> <li><u>C/Ps:</u> A total of 19 personnel has been appointed as main counterpart of the project. There were frequent changes in the position of Project Director (3<sup>rd</sup> from the original appointee) and Project Manager (3<sup>rd</sup> from the original one). For details, please see Annex-7. Faculty member (Technical C/Ps) in each department are a total of 33 in Mechanical (29 at present) and 13 in Architecture (10 at present)</li> <li><u>Office and facilities:</u> The major problem is electricity supply. There are planned four-hour of power cuts in the city during office hour in the summer (Apr.-Aug.) and the winter (Dec. - Feb.). The project installed large size of generators to cover the offices of experts and PC rooms at JICA's cost.</li> <li><u>Operational costs:</u> A total of approx.. 10,640,000 Rs from TEVTA was allocated up to . For details, please see Annex-8.</li> </ul>	
Outputs	Has Output 1 been produced as planned? 1. Management system of GCT R.R. is strengthened as a CoE which can offer technical	<p>PDM-original</p> <p>1-1.Number of cooperative firms</p> <p>1-2. Type of partnership with firms</p>	<p>PDM-modified</p> <p>1-2. Ten (10) or more significant market players participate in working group for promoting collaboration between GCT and industries ( 5 in each technology)</p> <p>1-3. Ten (10) or more annual collaborative activities with industry (industrial training of trainers: 2x2, lecture by industry;</p>	<p>Results</p> <ul style="list-style-type: none"> <li>Currently, there are already 5 industry members in IMC, though they are not as active as expected.</li> <li>The project plans to first activate the existing working group like IMC or set up a new one, and significant market players are expected to actively participate in the group in the 2<sup>nd</sup> half of the project.</li> </ul> <p>Collaborative activities with industries in the 1<sup>st</sup> half of the project are follows and will be conducted more regularly in the 2<sup>nd</sup> half of the project</p> <p>1) Industrial training of trainers: zero. 2) Lecture by industry: three.</p>

Evaluation Grid: Mid Term Review: The Project for Development of Center of Excellence (CoE) for Technical Education in Pakistan

	<p>education relevant to industrial needs.</p>	<p>1-3. Regular meeting with staff 1-4. Computerized data on students and teachers</p>	<p>4x2, industrial visit: 2x2, skill competition / Exhibition: 2 (5 in each technology)</p>	<p>3) Industrial visit: zero. 4) Skill competition/exhibition: one time. A total of 66 enterprises (44 Mechanical, and 22 Architecture) cooperated in TNA exercise (2009) very responsively. GCT faculty members contacted and visited enterprises which were selected as major employers of DAE graduates of GCT. In addition, industry members have cooperated through participation as a member in the Technical Working Group (TWG) for the 1<sup>st</sup> year curriculum revision, and in the Curriculum Revision Committee (CRC) and Curriculum Evaluation Committee (CEC) for 2<sup>nd</sup> and 3<sup>rd</sup> year revision. For each committee, a few members have been constituted from industry. (TWG was absorbed into CRC for the 2<sup>nd</sup> year revision). Meetings between institute and industry have been held sporadically in the 1<sup>st</sup> half of the project. A quarterly meeting will be held between institute and industry in the 2<sup>nd</sup> half of the project. The present situation of database development is as follows: 1) Students: Computerized data in EXCEL format was formulated for all present students in 4 technologies (about 2000 students) in March 2011. This was completed by GCT student section with help of instructors of the GCT computer section. This is an important 1<sup>st</sup> step since there was only paper-based data of all the students previously in GCT. 2) Trainers: There is already an existing data file of basic information which has been used and updated in GCT Prospectus every year. 3) Equipment: The equipment items provided by the project have been already computerized, and existing ones will be done in the 2<sup>nd</sup> half of the project. 4) Job placement: Computerizing data has just started, and will be done in a full-fledged manner as job placement services get going in the 2<sup>nd</sup> half of the project. Utilization of database is going to be the next step in the 2<sup>nd</sup> half of the project for the better school management of GCT. The project will hold a workshop for effective utilization of database. It should be noted that database will need to be updated periodically as well. 2 Newsletters of the project have been issued and distributed to all the concerned (one hundred companies, etc.) in the 1<sup>st</sup> half of the project. In the 2<sup>nd</sup> half of the project, newsletters will be issued quarterly. Webpage has been already developed and will need to be regularly updated in the 2<sup>nd</sup> half of the project. TNA was conducted in the beginning of the project (Jan.-Apr. 2009) for the very first time in GCT R.R. GCT faculty members designed TNA framework, visited firms and ex-students, collected and analyzed information/data and prepared the reports, with technical inputs of JICA short-term expert. TNA results were fed into the process of curriculum revision starting Apr. 2009 as intended. Revised curriculum: 1st and 2<sup>nd</sup> year curriculum have been revised through working with TWG (1<sup>st</sup> year)/CRC (2<sup>nd</sup> year) and TEVTA CEC, followed by implementation of pilot courses. 3rd year curriculum was also revised through working with TEVTA CRC and CEC. The 3rd year pilot courses will start in Sept. 2011. The 3-year complete revised curricula will be further reviewed after the completion of all the pilot courses. GCT instructors were trained to teach pilot courses of revised curricula. (Some trainer training is underway.</p>
<p>NA</p>	<p>2-1. TEVTA and GCT utilize manuals on training management cycle, and manage and promote the cycle by themselves.</p>	<p>1-5. Public Relations - Quarterly project newsletters, Regularly updated College webpage 2-1. Conducted Training Needs Assessment (TNA) 2-2. Revised curriculum based on industrial needs 2-3. Trained master trainers (15)</p>	<p>1-3. Regular meeting with staff 1-4. A quarterly meeting between institute and industry 1-1. Use of computerized data on students, trainers, equipment, job placement, etc. for school / department management</p>	<p>1-3. Regular meeting with staff 1-4. A quarterly meeting between institute and industry 1-1. Use of computerized data on students, trainers, equipment, job placement, etc. for school / department management</p>
<p>Has Output 2 been produced as planned?</p>	<p>2. Training management cycle of Mechanical and Architecture courses is</p>	<p>2-1. TEVTA and GCT utilize manuals on training management cycle, and manage and promote the cycle by themselves.</p>	<p>1-5. Public Relations - Quarterly project newsletters, Regularly updated College webpage 2-1. Conducted Training Needs Assessment (TNA) 2-2. Revised curriculum based on industrial needs 2-3. Trained master trainers (15)</p>	<p>1-3. Regular meeting with staff 1-4. A quarterly meeting between institute and industry 1-1. Use of computerized data on students, trainers, equipment, job placement, etc. for school / department management</p>

Evaluation Grid: Mid Term Review: The Project for Development of Center of Excellence (CoE) for Technical Education in Pakistan

	strengthened.		for pilot courses	<p>It is a continuous process.)</p> <ul style="list-style-type: none"> <li>At least, 3 trainers in Mechanical and 5 trainers in Architecture have been trained to be able to perform as master trainers.</li> <li>For Mechanical department, a total of 10 master trainers is required to cover the newly revised 10 subjects, and therefore, at least 7 more trainers need to be trained to become master trainers.</li> <li>For Architecture department, a total of 5 master trainers is required, and therefore, present staff will be able to teach others.</li> </ul>
			2-4. Trained trainers by master trainers	<ul style="list-style-type: none"> <li>This will be done in the 2<sup>nd</sup> half of the project and status will be recorded.</li> <li>It will be difficult that trainer training by master trainers will be implemented in an organized, fixed timeframe (eg. 5 day-course) considering the instructors' present workload and schedule. Instead, they will be able to (and have been doing so far as well) teach at their convenience and more informal type of training. However, it is possible to collect data regarding whether they transfer their learned skills and knowledge to other trainers as monitoring records.</li> </ul>
			2-5. Revised teaching materials and exam papers	<ul style="list-style-type: none"> <li>1st and 2nd year syllabuses (annual teaching schedules) were revised. 3rd year one is underway.</li> <li>Other teaching materials, lesson plans, operation sheets were revised and/or developed.</li> <li>Exam papers compliant with the new curriculum have been revised.</li> </ul>
			2-6. Installed equipment and maintenance activities	<ul style="list-style-type: none"> <li>Facilities were renovated for the installation of equipment necessary for the revised curriculum.</li> <li>The equipment was installed for trainer training and pilot courses.</li> <li>Equipment inventory was made in each department.</li> </ul>
			2-7. Monitored & evaluated pilot courses	<ul style="list-style-type: none"> <li>Monitoring and Evaluation of the pilot courses of 1st and 2nd year was conducted. The results of the 1<sup>st</sup> year M &amp; E were shared in the workshop, and the same will be done for 2<sup>nd</sup> year M &amp; E results soon.</li> <li>3rd year M&amp;E will be conducted after the start of 3rd year pilot courses.</li> </ul>
			2-8. Developed TMC manual	<ul style="list-style-type: none"> <li>TMC manual will be developed after completing the one cycle of TMC so that all the steps of TMC and experiences/lessons throughout the whole cycle will be reflected and compiled into TMC manual.</li> </ul>
2-2. Satisfaction rate of students on training courses			To be covered in Project Purpose	<ul style="list-style-type: none"> <li>To be covered in Project Purpose</li> </ul>
2-3. Employers satisfaction of trainees			To be covered in Project Purpose	<ul style="list-style-type: none"> <li>To be covered in Project Purpose</li> </ul>
2-4. Number of suggestions for improvement in training cycle			To be deleted	<ul style="list-style-type: none"> <li>To be deleted</li> </ul>
Has Output 3 been	3-1.		3-2. 70% or more of students	<ul style="list-style-type: none"> <li>So far, career counseling was provided on personal basis by instructors and the number of students who got</li> </ul>

Evaluation Grid: Mid Term Review: The Project for Development of Center of Excellence (CoE) for Technical Education in Pakistan

Prospect of achievement (Project Purpose)	PDM-original	PDM-modified	Results																											
<p>Project Purpose of achieving Project Purpose</p> <p>Project Purpose: Mechanical and Architecture courses of GCT R.R. provide quality technical education based on industrial needs as CoE</p>	<p>1. Satisfaction of industry</p>	<p>1. 70% or more of firms considers performance of graduates of GCT R.R. after new curriculum introduction is higher than previous graduates.</p>	<p>The data of satisfaction of industry will be collected in Endline Survey. It is not possible to judge until the 1<sup>st</sup> students of revised curriculum graduate and go into job market after June 2012.</p> <p>In conducting Endline survey, recalling data (asking enterprises whether they are satisfied with the students under the new curriculum more than the ones under the old one) will be collected so that clearer comparative perception of industries on ex-students.</p> <p>For information, TNA collected the responses as follows:</p> <table border="1" style="margin-left: 20px;"> <caption>Number of sample surveyed in TNA</caption> <thead> <tr> <th></th> <th>Mechanical</th> <th>Architecture</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>No. of enterprises</td> <td>44</td> <td>22</td> <td>66</td> </tr> <tr> <td>No. of ex-students</td> <td>104</td> <td>25</td> <td>129</td> </tr> </tbody> </table> <p>Source: TNA, 2009</p> <p>1) <u>Mechanical</u>: There are only 15.9% (7 out of 44 enterprises) answered "satisfied", whereas 77.3 % (34 out of 44) voted for "not satisfied". This shows that most of the enterprises employing DAE graduates from GCT are not satisfied with them.</p> <p>2) <u>Architecture</u>: 54.5% (12 out of 22 enterprises) answered "satisfied", and 36.4% (8 out of 22) voted for "not satisfied". This shows that enterprises employing DAE graduates have more positive perception compared to those in Mechanical field.</p> <p>Enterprises' satisfaction on ex-students surveyed in TNA</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>Mechanical</th> <th>Architecture</th> </tr> </thead> <tbody> <tr> <td>Satisfied</td> <td>7 (15.9%)</td> <td>12 (54.5%)</td> </tr> <tr> <td>Not satisfies</td> <td>34 (77.3%)</td> <td>8 (36.4%)</td> </tr> <tr> <td>Total</td> <td>NA</td> <td>3 (6.8%)</td> </tr> <tr> <td></td> <td>44 (100%)</td> <td>22 (100%)</td> </tr> </tbody> </table> <p>Source: TNA, 2009</p> <ul style="list-style-type: none"> <li>• For details, please see a complete set of reports of TNA.</li> <li>• The data of satisfaction of ex-students will be collected in the Endline Survey.</li> <li>• For base data, TNA collected responses from ex-students on the usefulness of education provided by GCT R.R.             <ol style="list-style-type: none"> <li>1) <u>Mechanical</u>: 34.6% (36 out of 104) expressed useful for more than 60% in knowledge domain; 35.6% (37 out of 104) did the same for Skill Technology domain.</li> </ol> </li> </ul>		Mechanical	Architecture	Total	No. of enterprises	44	22	66	No. of ex-students	104	25	129		Mechanical	Architecture	Satisfied	7 (15.9%)	12 (54.5%)	Not satisfies	34 (77.3%)	8 (36.4%)	Total	NA	3 (6.8%)		44 (100%)	22 (100%)
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	<p>2. Satisfaction of ex-students</p>	<p>2. 70% or more of graduates of GCT R.R. are satisfied with DAE course contents compatible to industrial needs.</p>																												

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<p>produced as planned ?</p> <p>3. Placement support of GCT is strengthened.</p>	<p>Number of students who take career counseling</p> <p>3-2. Computerized data on job information and job seeking</p> <p>3-3. Satisfaction rate of placement support to students</p> <p>3-4. Satisfaction rate of placement support to firms</p>	<p>take career counseling</p> <p>3-1. Computerized data on placement internship, opportunities</p> <p>3-3. 70% or more of students' satisfaction rate of placement support</p> <p>3-4. 70% or more of employers' satisfaction rate of placement support</p>	<p>such counseling is not known.</p> <p>GCT will provide career counseling on organizational basis starting for the 1<sup>st</sup> students of revised curriculum scheduled to graduate in June 2012. As part of it, a "Career Planning Support Section" was established in December 2010 under the director of physical education.</p> <p>A set of internship documents was prepared for systematic implementation. (Request letter, GCT internship program, Memorandum between GCT and firms, Application forms, pledge of agreement by Students)</p> <p>The first orientation meeting of internship was held in May 2011 for 2<sup>nd</sup> year students who will graduate in June 2012 under the revised curriculum. There are 130 applicants in Mechanical and 61 in Architecture. About 30 companies already secured places for their internship.</p> <p>Past records of job placement (information about employers) have been collected to make computerized data. For internship, this has just started for the 2<sup>nd</sup> year students for this summer vacation. Computerizing data is underway.</p> <p>The data will be collected from the students under revised curriculum who will be provided with systematic placement support.</p> <p>For information, TNA collected the responses on placement services from 701 regular students of DAE (Mechanical) of 2<sup>nd</sup> and 3<sup>rd</sup> year. The average score for the question is 2.5 (1-5 scale from Poor to Excellent). There is no data in TNA for students of DAE(Architecture)</p> <p>The data will be collected in the Endline survey.</p> <p>For base and present data, there is none.</p> <p>In the near future, GCT will get feedback from the firms hosting internship programmes which are now scheduled to start for 2<sup>nd</sup> grade students (1<sup>st</sup> graduate-to-be under new curriculum) in summer vacation this year.</p> <p>Seminars will be held after the one complete cycle of TMC with experiences fully accumulated.</p> <p>In the meantime, college webpage was developed and regularly revised. Project Newsletters (No.1 and 2) were issued to share Knowledge and experiences with other courses of GCT as well as other TVET institutes.</p> <p>Same as above.</p>
<p>Has Output 4 been produced as planned ?</p> <p>4. Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.</p>	<p>4-1. Number of seminars held</p> <p>4-2. Number of participants participated in seminars</p> <p>4-3. Understanding of the participants about contents of the seminars</p>	<p>4-1. Two or more seminars held</p> <p>4-2. 70% or more of DAE institutes (Mechanical and Architecture) in Punjab participate in seminars.</p> <p>4-3. 70% or more of participants understand the seminar content.</p>	<p>Same as above.</p>

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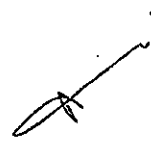
<p>Ex-students' responses on usefulness of education /training at GCT (Mechanical)</p> <table border="1"> <thead> <tr> <th>How is the contents of the education/training useful</th> <th>81~ 100%</th> <th>61~ 80%</th> <th>51~ 60%</th> <th>Less than 50 %</th> <th>Not useful</th> <th>NA</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Knowledge</td> <td>10</td> <td>26</td> <td>26</td> <td>25</td> <td>0</td> <td>17</td> <td>104</td> </tr> <tr> <td>Skill Technology</td> <td>12</td> <td>25</td> <td>32</td> <td>22</td> <td>4</td> <td>9</td> <td>104</td> </tr> </tbody> </table> <p>Source: TNA (Mechanical), 2009</p>	How is the contents of the education/training useful	81~ 100%	61~ 80%	51~ 60%	Less than 50 %	Not useful	NA	Total	Knowledge	10	26	26	25	0	17	104	Skill Technology	12	25	32	22	4	9	104	<p>2) Architecture: 64.0% (16 out of 25) expressed useful for more than 60% in knowledge domain; 56.0% (14 out of 25) did the same for Skill Technology domain respectively.</p>	<p>Ex-students' responses on usefulness of education /training at GCT (Architecture)</p> <table border="1"> <thead> <tr> <th>How is the contents of the education/training useful</th> <th>81~ 100%</th> <th>61~ 80%</th> <th>51~ 60%</th> <th>Less than 50 %</th> <th>Not useful</th> <th>NA</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Knowledge</td> <td>8</td> <td>8</td> <td>1</td> <td>4</td> <td>0</td> <td>1</td> <td>22</td> </tr> <tr> <td>Skill Technology</td> <td>8</td> <td>6</td> <td>3</td> <td>2</td> <td>1</td> <td>2</td> <td>22</td> </tr> </tbody> </table> <p>Source: TNA (Architecture), 2009</p>	How is the contents of the education/training useful	81~ 100%	61~ 80%	51~ 60%	Less than 50 %	Not useful	NA	Total	Knowledge	8	8	1	4	0	1	22	Skill Technology	8	6	3	2	1	2	22	<p>For additional information, the present students' satisfaction may partly indicate their future satisfaction.</p> <p>1) Overall: From the interviews with students of two departments conducted in Mid Term Review, they all expressed overall satisfaction about revised curriculum and associated introduction of new equipment, facilities and upgraded educational conditions. The 3<sup>rd</sup> grade students who are under the old curriculum mentioned their wish to have studied under new curriculum since old one was obsolete and needs updated and upgraded. Architecture students are highly satisfied with improved, physical conditions of classrooms as well as trainer quality including female trainers.</p> <p>2) Female students in Architecture: They are quite satisfied with admission into GCT and highly motivated. They also appreciate environments in the department conducive to females in particular such as common room, female bathroom and trainers both male and female.</p>	<p>• Past 3 years trends are as below:</p> <table border="1"> <thead> <tr> <th>Grade</th> <th>Department</th> <th>2007-08</th> <th>2008-09</th> <th>2009-10</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1<sup>st</sup> year</td> <td>Mechanical</td> <td>40%</td> <td>37%</td> <td>46%</td> </tr> <tr> <td>Architecture</td> <td>38%</td> <td>37%</td> <td>40%</td> </tr> <tr> <td rowspan="2">2<sup>nd</sup> year</td> <td>Mechanical</td> <td>64%</td> <td>37%</td> <td>41%</td> </tr> <tr> <td>Architecture</td> <td>24%</td> <td>42%</td> <td>56%</td> </tr> <tr> <td rowspan="2">3<sup>rd</sup> year</td> <td>Mechanical</td> <td>89%</td> <td>57%</td> <td>45%</td> </tr> <tr> <td>Architecture</td> <td>92%</td> <td>43%</td> <td>60%</td> </tr> </tbody> </table>	Grade	Department	2007-08	2008-09	2009-10	1 <sup>st</sup> year	Mechanical	40%	37%	46%	Architecture	38%	37%	40%	2 <sup>nd</sup> year	Mechanical	64%	37%	41%	Architecture	24%	42%	56%	3 <sup>rd</sup> year	Mechanical	89%	57%	45%	Architecture	92%	43%	60%
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Prospects of achieving Overall Goal	Overall Goal	PDM-original	PDM-modified	Results
Overall Goal	<p>Prospects of achieving Overall Goal</p> <p>Overall Goal-1: Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other courses in GCT</p> <p>Overall Goal-2 (under consideration): Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes (Mechanical and Architecture) in Punjab.</p>	<p>Number of courses other than Mechanical and Architecture which introduced the approach of the project</p> <p>NA</p>	<p>To be deleted</p> <p>70% or more of DAE institutes (Mechanical &amp; Architecture) in Punjab introduce approach of the Project (Approach: Outputs 1-4)</p>	<p>1st year revised curriculum (Mechanical) has already been introduced into other institutions in Punjab, and 2<sup>nd</sup> year curriculum will be done the same soon. In this sense, the project precedes the time schedule ahead.</p> <p>However, it should be noted that introducing new curriculum requires, among many others, 1) trainer training, 2) curriculum compliant labs and equipment. Since 1st year curriculum is rather basic and did not require a lot of inputs, but introducing 2nd and 3rd year curriculum will no longer be possible without proper trainer training and equipment provision. For equipment, not all the 15 other GCTs in Punjab have to be equipped at the same level as GCT R.R., and may adopt cluster system, in which a few GCTs could be upgraded fully and other GCTs use such facilities during summer vacation or so. For trainer training, it needs to be implemented during the summer vacation before introducing the 2nd year curriculum.</p> <p>TEVTA are well aware of such requirements. For example, in one month time, gap analysis for curriculum compliant labs will be conducted. TEVTA intends to prepare a plan of actions with budget requirements for the dissemination of the project approach into other institutions in Punjab.</p> <p>In addition, in order to accelerate the application to other institutions, more efforts may have to be made in activating IMC, BOM or any other newly created bodies which provide college-industry linkage constantly in the 2<sup>nd</sup> half of the project.</p> <p>As for the needs of applications in other institutes, there is good potential needs for human resources from both Mechanical and Architecture in Punjab.</p> <p>1) Automobile industry, either assembly or spare parts production is growing market, and needs for DAE graduate are expected to grow as well.</p> <p>2) Architecture department in the government college is only in GCT R.R. but there is a possibility of applying a part of curriculum into other institutions where civil engineering departments exist, because basic subjects are common between architecture and civil engineering. Also, establishing new Architecture department in other institutions may be another option which is now becoming a</p>

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				concrete agenda in TEVTA. Since Architecture department provides more opportunities to female including those in local areas, disseminating the model and experiences of female admission at GCT R.R. will have a significant effect on gender issues.
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 M. M



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2. IMPLEMENTATION PROCESS		Question items	Necessary Information/Data	Results
Main-question	Sub-question			
Progress of activities	<ul style="list-style-type: none"> <li>Have project activities been carried out as planned?</li> <li>If not, what are such activities and why?</li> <li>What are the contributing/hampering factors?</li> </ul>	<ul style="list-style-type: none"> <li>PO</li> <li>Accomplishment of Activities</li> <li>Contributing/hampering factors and how to cope with them</li> </ul>	<ul style="list-style-type: none"> <li>The project activities have been implemented mostly as planned in the PDM with necessary adjustments. Please see the present PO (Annex-9).</li> <li>Activities that need to be accelerated/attended in the 2nd half of the project are as follows:                             <ol style="list-style-type: none"> <li>1) Database development: among many items, records of equipment including existing items need to be computed (presently, paper-based). Database of industry needs to be developed as job placement services proceed with 1st graduates-to-be.</li> <li>2) Placement services: targets are 1st graduates-to-be under the revised curriculum, and therefore, they have just recently got geared in time for graduation next year.</li> <li>3) Dissemination seminars: they will be implemented after accumulation of experiences of one TMC cycle when completed in latter part of the project.</li> <li>4) Development of Teaching Materials (Mechanical);</li> <li>5) Trainer Training (Mechanical);</li> <li>6) Final review of 3-year complete set of revised curriculum</li> <li>7) Development of master trainers and their subsequent training to trainers in other institutions,</li> <li>8) others</li> </ol> </li> <li>The above can be listed PDM activity-wise as below:                             <ul style="list-style-type: none"> <li>(Output 1)                                     <ul style="list-style-type: none"> <li>1-1. Constitute a working group for promoting collaboration between GCT and industries.</li> <li>1-2. Conduct collaborative activities with industry.</li> <li>1-3. Enhance relations of GCT and its activities with industry and students.</li> <li>1-4. Establish and use computerized data on institute for institute management. (Output 2)</li> </ul> </li> <li>2-5. Ratify list of equipment by academia and industry</li> <li>2-6. Formulate inventory of equipment an upgrade maintenance system</li> <li>2-7. Train master trainers</li> <li>2-11. Develop manuals on training management cycle. (Output 3)</li> <li>3-1. Introduce a tracer survey system.</li> <li>3-2. Establish database on job information.</li> <li>3-3. Conduct career counseling for students.</li> <li>3-4. Promote career day. (Output 4)</li> <li>4-1. Hold seminars to promote the activities / outputs of the project. (Output 4)</li> </ul> </li> </ul>	
			Evaluation Grid (1,2) - 9/13 page	

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<p>The Project team faced the following potential factors that could have hampered the Project activities. However, the Project team managed to overcome these issues with efforts, thus they did not hamper the progress of the Project in a serious manner.</p>		<p>(hampering factors)</p> <ol style="list-style-type: none"> <li>1) Delay in fielding Japanese Experts: the project started in Dec. 2008 without Chief Advisor who finally arrived in Apr. 2009. In his absence, a short term expert on TNA alone had to start the project activities. In addition, 2 long term Experts on Mechanical and Architecture were not in place at most preferable timing. Expert on Mechanical arrived in Apr. 2009, just after the completion of the TNA. Arrival of Expert on Architecture was further delayed until Sep. 2009 even after the completion of the 1st year curriculum revision. Therefore, two technical experts unfortunately were not able to give maximum technical inputs to the design of TNA for both subjects, and for the 1st year curriculum revision of Architecture. However, C/Ps and Chief Advisor invited professional authorities from universities to work actively for curriculum revision. After joining the project, Expert on Architecture also gave inputs into the revised curriculum and necessary upgrading/modification (eg. further emphasis on practical work) was made. In any way, the activities have been implemented with quality ensured but it would have been more useful if 2 long term technical experts, as well as Chief Advisor, jointly had launched the project from the beginning.</li> <li>2) Frequent changes of C/Ps (particularly PD and PM): There were frequent changes in the position of Project Director (3rd from the original appointees) and Project Manager (3rd from the original one). These changes have caused discontinuity in project management as a whole, as well as resulted in delay of processing documents for installation of some of the equipment and associated rehabilitation of facilities. In addition, those who participated in C/P training have changed and not remained in the project.</li> </ol>	
		<p>(contributing factors)</p> <ol style="list-style-type: none"> <li>1) Strong initiative of Chairperson, TEVTA: With an appointment of present Chairman in Aug. 2009 who have a good understanding of and support to the project, his strong initiative and commitment has contributed quite a lot to the efficient and effective implementation of the project.</li> <li>2) Strong support from TEVTA and GCT: Overall commitment of TEVTA and GCT staff has been notably high during the first half of the Project.</li> <li>3) Strong support from TEVTA and GCT in female admission: First ever female admission was not made possible without rigorous facilitation and strong commitment by TEVTA and GCT. Initially, the proposal on female quota was 10%, but finally increased to 40% by TEVTA board of management.</li> <li>4) Staffing of Architecture Dept.: 6 new instructors with Bachelor degrees were recruited in Apr. 2011, adding up to a total of 10 instructors in the department including 4 instructors present in the beginning. They can perform as master trainers. Newly posted, young female instructors together with 2 since last year also have a good effect on promoting the admission of female students.</li> <li>5) Staffing of Mechanical Dept.: Three new trainers with bachelor degrees were recruited in April 2011</li> </ol>	

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<p>Technical transfer</p>	<ul style="list-style-type: none"> <li>Are methods of technical transfer appropriate?</li> <li>Any problems of the methods of technical transfer?</li> <li>Has technical expertise been transferred to C/Ps, and what is the status of the progress?</li> </ul>	<ul style="list-style-type: none"> <li>Methods, contents, levels, adjustments of technical transfer</li> <li>Progress of technical transfer</li> </ul>	<p>and they are trained as master trainers. And five more new trainers are requested to be recruited.</p> <ul style="list-style-type: none"> <li>Technical assistance in terms of methods, contents and levels has been mostly appropriate and accepted by C/Ps.</li> <li>An issue related to technical assistance is frequent transfer of major C/Ps (PD and PM).</li> <li>For management of the project, it was necessary to work closely with higher authority, namely TEVTA, so that project can smoothly be carried out at GCT R.R.</li> </ul>
<p>Project management</p>	<ul style="list-style-type: none"> <li>How is the monitoring mechanism?</li> <li>Have monitoring exercises been done properly?</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring mechanism (who, how, what frequency including feedback system)</li> <li>Actual performance of monitoring</li> </ul>	<ul style="list-style-type: none"> <li>In TEVTA, there is a focal point in the project who regularly monitor the project.</li> <li>M &amp; E of TMC and implementation of pilot courses has been carried out jointly with JICA Experts and TEVTA-M&amp;E. By visiting and observing lessons, questionnaires to instructors and students (note: students will be dropped from the second year) for their comments and evaluations. After 1 year monitoring of 1st year revised curriculum, a workshop was held where all the monitoring results were shared and discussed for remedy actions. For 2nd year monitoring workshop, it is expected to do the same soon.</li> <li>For Mechanical Dept., selected, relevant personnel have been invited from GCT R.R. and TEVTA to do the monitoring of teaching materials, equipment, lesson contents and environment.</li> <li>For Architecture Dept., there will be monthly examinations of all the subjects and their results will be analyzed by instructors for their review and reflection of teaching methodology, as well as for feedback purposes to individual students.</li> <li>As above, monitoring has been conducted extensively so far in the project and will continue to do so.</li> </ul>
<p>Decision making process</p>	<ul style="list-style-type: none"> <li>Has decision making mechanism functioned smoothly?</li> </ul>	<ul style="list-style-type: none"> <li>Decision making process (eg. Modification of plans, staff/budget allocation etc.)</li> <li>Information on problems of decision making</li> </ul>	<ul style="list-style-type: none"> <li>Decision making on management of GCT R.R. is strongly associated with decision making mechanism of TEVTA. In such sense, there is no short cut, and it takes some time.</li> <li>As mentioned earlier, due to frequent changes of C/Ps at management level, decision making process suffered. For example, particular to Mechanical dept. allocation of facilities like classrooms, renovation, and trainer deployment have consumed quite some time.</li> <li>There have not been regularly fixed, joint meetings between JICA and relevant C/P organizations. However, they met, as and when; for example, new Chairman, PD, and PM take the office, it is recommended that regular meetings should be held in the 2nd half of the project, preferably including TEVTA District Manager, and Zone Manager.</li> <li>There was no JCC held in the past 2.5 years. JCC is supposed to be held yearly and convened by NAVTEC. For the latter half of the project, it is also recommended that JCC be held as stipulated in the M/M.</li> </ul>

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<p>Communication among stakeholders</p>	<ul style="list-style-type: none"> <li>Has a good communication been maintained between Project personnel and JICA (Country Office, HQs)?</li> <li>Has an appropriate actions/advice, coordination with relevant organizations been maintained by JICA (Country Office, HQs)?</li> </ul>	<ul style="list-style-type: none"> <li>Methods of communication (e.g. Meetings etc.) and frequencies</li> <li>Problems in communication</li> </ul>	<ul style="list-style-type: none"> <li>Overall, communication with JICA (HQs and Country Office) has been smooth and sufficient level of communication has been maintained with reasonable responses from JICA.</li> </ul>
<p>Ownership</p>	<ol style="list-style-type: none"> <li>Has the Project maintained a necessary communication with major, relevant donors?</li> </ol>	<ol style="list-style-type: none"> <li>Information on major, relevant donors</li> <li>Problems in communication</li> </ol>	<ul style="list-style-type: none"> <li>British Council (3-year diploma in electronics) and GTZ in Shindu province are the relevant donors in the sector.</li> <li>There has not been a need for interactions with them, but sharing the progress of the project in the NAVTEC-led donor coordination meetings.</li> </ul>
<p>Understanding</p>	<ul style="list-style-type: none"> <li>Has JICA Expert Team maintained a good communication among the team members?</li> <li>Has JICA Expert Team maintained a good communication with C/Ps?</li> <li>Have C/Ps maintained a good communication among themselves?</li> </ul>	<ul style="list-style-type: none"> <li>Methods of communication (e.g. Meetings etc.) and frequencies</li> <li>Problems in communication</li> </ul>	<ul style="list-style-type: none"> <li>Communication between JICA Experts and C/Ps:                             <ol style="list-style-type: none"> <li>With GCT R.R., occasional meetings have been held, and necessary written communication has been maintained by CA. However, all the Experts feel that there needs to have regular meetings including management in the 2<sup>nd</sup> half of the project. For department-wise, both Mechanical and Architecture have regular meetings. They have been posted in their C/P office and have close contacts with respective HOD and Instructors.</li> <li>With TEVTA, necessary communication has been maintained in Expert's capacity, but for future, Experts feel that there needs to be fixed, regular meetings including GCT with TEVTA for sharing information and monitoring the progress together.</li> <li>With NAVTEC, CA attended NAVTEC led donor coordination meeting to share the progress of the project, and have discussions and sent News Letters to NAVTEC. It has been limited for NAVTEC to directly observe the project activities, and due to frequent staff changes, their knowledge about the project is also limited.</li> </ol> </li> <li>Communication among C/Ps: There may be a certain gap between GCT R.R - TEVTA, and TEVTA - NAVTEC. They needs to be further communicated and share information and progress of the project.</li> <li>C/Ps have a good understanding of the project and participate in the project implementation actively.</li> </ul>

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ng of the project	understanding of the Project?	project by C/Ps
Allocation of C/Ps	<ul style="list-style-type: none"> <li>Have C/Ps been assigned appropriately?</li> </ul>	<ul style="list-style-type: none"> <li>Status of allocation of C/Ps (numbers, posts/responsibilities, timing of assignment)</li> </ul>
Participation in Project activities	<ul style="list-style-type: none"> <li>Have C/Ps performed their expected responsibilities?</li> <li>How has been the level of participation by C/Ps in the Project activities?</li> </ul>	<ul style="list-style-type: none"> <li>Degree of performing responsibilities</li> <li>Degree of participation of C/Ps (e.g. frequencies of meetings, events, activities, contents of discussions, etc.)</li> </ul>
Budget	<ul style="list-style-type: none"> <li>Have the local costs been met by Indonesian side appropriately?</li> </ul>	<ul style="list-style-type: none"> <li>Amount and share of the budget expenditures (actual)</li> </ul>
<ul style="list-style-type: none"> <li>For example, TNA was conducted by instructors who directly contacted and visited ex-students and enterprises for interview, collected and analyzed data and developed reports with their initiatives and strong commitment.</li> <li>In Mechanical and Architecture departments, as activities have progressed and taken concrete shape of the project, C/Ps were progressively showing a good understanding and act on accordingly.</li> <li>TEVTA also tries to improve the quality education; it changed admission policy (from first-come first-served basis to merit basis for evening course students), trainer recruitment policy (bachelor holder, increase in number, special remunerations to qualifications ) and so forth.</li> <li>As for NAVTEC, their understanding about the project is not as the same level as other C/P organization because of its role as coordination body at Federal level, and had limited direct contacts with the project.</li> <li>Overall, assigned C/Ps have been appropriate in terms of quality, quantity and timing.</li> <li>Issues to be noted are frequent changes and appropriate instructors' age structure for future sustainability.</li> <li>Most of the C/Ps have performed their expected responsibilities.</li> <li>Their participation level was high except NAVTEC whose participation has been limited in the past.</li> <li>TEVTA and GCT have borne the expenses as described in the M/M almost appropriately. The major items borne by TEVTA/GCT were development of Labs in Jubli Hall, Mechanical Technology, and new construction of Lab in college campus, Mechanical Technology.</li> </ul>		

Annex-10-2

Evaluation Grid (3): Results of Evaluation

3. Five Evaluation Criteria		Evaluation times		Necessary information/data	Results
Criteria	Major	Sub			
(1) Relevance	Priority	Is the Project in line with the needs of target region and society?	<ul style="list-style-type: none"> <li>Are there any changes in the national and/or regional needs for human resource development in Pakistan and Panjab, compared to those identified at the time of project formulation?</li> <li>Are there any changes in the needs of target groups (GCT, TEVTA, NAVTEC, industry and students) in Pakistan and Panjab, compared to those identified at the time of project formulation?</li> </ul>	<ul style="list-style-type: none"> <li>The project is in line with the needs of Pakistan and Panjab that promote skill development in middle level technical personnel. Their needs remain unchanged since 2008 when the project was formulated.</li> <li>The project is in line with the needs of relevant target groups. Their needs remain unchanged since 2008 when the project was formulated.</li> </ul>	
		Is the Project consistent with the policies in Pakistan in terms of the following? <ol style="list-style-type: none"> <li>National development policy</li> <li>Industrial and labor policy</li> <li>TVET policy</li> </ol>	<ul style="list-style-type: none"> <li>Are there any changes in the national and regional policies, compared to those identified at the time of project formulation?                             <ol style="list-style-type: none"> <li>MTDF latest</li> <li>Vision 2030</li> <li>Skilling Pakistan 2009-2012</li> </ol> </li> <li>Consistency with the Japanese ODA policy for Pakistan</li> </ul>	<ul style="list-style-type: none"> <li>The project is consistent with policies in Pakistan. The relevant policies remain unchanged; MTDF as national development policy, Vision 2030 as industrial/labour policy and Skilling Pakistan 2009-2012 as TVET policy stand as present guiding policies documents as before.</li> <li>In the Skilling Pakistan, 20 reforms are proposed to achieve objectives 1) Providing relevant skills for industrial &amp; economic development, 2) Improving access, equity and employability, and 3) Assuring Quality. A concept of establishing industry specific Centers of Excellence is one of the 20 reforms to achieve the number 2 objective.</li> </ul>	
		Is the Project consistent with the Japanese ODA policy?		<ul style="list-style-type: none"> <li>The project is consistent with the Japanese ODA policy. Japan's Country Assistance Program for Pakistan (2005) stands as present Japanese ODA policy for Pakistan. The policy remains unchanged since formulation of the project.</li> <li>As part of its priority areas, "support for higher education and technical training to promote the expansion of the middle class" is listed.</li> </ul>	

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<p>(2) Effectiveness (prospects)</p>	<p>Appropriateness as means</p>	<p>Has the project strategy been appropriate?  <ul style="list-style-type: none"> <li>Project approach</li> <li>Selection of the target region (Punjab)</li> <li>Selection of the target GCT (Railway) and its size</li> <li>Selection of the target areas (Mechanical and Architecture) and their size</li> <li>Selection of the other target groups (TEVTA, NAVTEC, industry and students) and their size</li> <li>Status of coordination and synergy effects with assistances from other donors</li> <li>Status of coordination and synergy effects with other Japanese assistances</li> </ul> </p>	<p>Has the project strategy been appropriate in terms of the following?  <ul style="list-style-type: none"> <li>Project approach</li> <li>Selection of the target region (Punjab)</li> <li>Selection of the target GCT (Railway) and its size</li> <li>Selection of the target areas (Mechanical and Architecture) and their size</li> <li>Selection of the other target groups (TEVTA, NAVTEC, industry and students) and their size</li> <li>Status of coordination and synergy effects with assistances from other donors</li> <li>Status of coordination and synergy effects with other Japanese assistances</li> </ul> </p>	<p>The project strategy has been mostly appropriate. There are some points to be noted as follows:          1) Selection of GCT R.R. is at first questionable as the physical conditions such as old facilities and narrow campus are disadvantages as CoE. However it is still judged to be appropriate as GCT R.R. has a long history, having rich faculty and is centrally situated with easy access. Such advantages supersede physical disadvantages, and the project has contributed toward upgrading of the facilities to fill the gap.          2) Under the TEVTA's coordination, Mechanical and Architecture departments of GCT R.R. have been selected and appointed for JICA's assistance among various other development partners. There is no duplication with any other donors.          3) The planned Grant Aid supported by Japanese Government for GCT R.R. is expected to have a synergy effects. The plan includes a new building for Architecture, various equipment items necessary for Mechanical and Architecture departments. The construction process of Architecture building would be a hands-on learning material, too. Upgrading of facilities and providing equipment are expected to serve to yield maximum effects with each other.</p>
<p>Others</p>	<p>Does Japan have a technical advantage?</p>	<p>Information on changes in politics, economies, social aspects etc.</p>	<p>All the Experts have been fully utilizing experiences of Japan and/or similar projects. For example, they have introduced Japanese industrial situation, lesson contents in technology education and curriculum. Teaching materials in Japan have also been extensively referred to. In addition, organizational management was introduced, particularly in Architecture department, where disciplined actions and behavior have been introduced as a basis for a good educational environment.</p>	
<p>Achievement of the Project Purpose (prospects)</p>	<p>Are there any changes in the project environment (politics, economies, social aspects etc. since ex-ante evaluation)?          Is the Project Purpose likely to be achieved?          Project Purpose: Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as CoE.</p>	<p>See 1. Performance</p>	<p>No major changes have been observed in politics, economic environment and others. In Punjab, Chief Minister has been in the office since 2008 to date, who has a good understanding of and support to the project, including the approval of admission of female students.</p>	

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	Causal relationship (Contribution of Outputs to achieving Project Purpose)	<p>Whether Project Purpose is to be achieved as a result of Outputs.</p> <p>Is the important assumption on the achievement of Project Purpose still valid /whether it is going to be fulfilled?</p> <p>Important Assumption: Trained staff will remain working for GCT.</p> <p>Are there any contributing/hampering factors to achieve Project Purpose</p>	<p>Verification of logics between Project Purpose and Outputs</p> <p>Status of assignments of trained trainers</p> <p>Any influences</p> <p>Information on contributing/hampering factors</p>	<ul style="list-style-type: none"> <li>It is logical. As a result of 4 Outputs, Mechanical and Architecture courses of GCT R.R. will be strengthened to provide quality in technical education as COE, if GCT's management system (Output 1), TMC (Output 2), and placement support (Output 3) are strengthened and dissemination exercises (Output 4) are done.</li> <li>TEVTA has issued a notification to restrain transfer of trainers developed and upgraded by the Project.</li> </ul>
(3) Efficiency	Achievement level of outputs	<p>Have the Outputs been produced as planned? (Comparison between actual and targets/planned)</p> <p>Are there any contributing/hampering factors to achieve Outputs?</p>	<p>See 1. Performance</p> <p>Information on contributing/hampering factors</p> <p>Verification of logics between activities and Outputs</p> <p>See 1. Performance</p>	<p>See 2. Implementation Process</p> <ul style="list-style-type: none"> <li>Strong commitment and support from top authority of TEVTA as well as strong ownership of concerned C/Ps personnel will continue to be contributing factors.</li> <li>Frequent changes of C/Ps together with recruitment and deployment of trainers (short staffing, transfer and workload) may be hampering factors.</li> </ul> <p>See 1. Performance</p> <ul style="list-style-type: none"> <li>Overall, outputs have been produced as planned for Output 1 and 2. Activities will be implemented to achieve Output 3 and 4 in the 2<sup>nd</sup> half of the project.</li> </ul> <p>See 1. Performance and 2. Implementation Process</p> <ul style="list-style-type: none"> <li>Strong commitment and support from top authority of TEVTA as well as strong ownership of concerned C/Ps personnel will continue to be contributing factors.</li> <li>Frequent changes of C/Ps together with recruitment and deployment of trainers (short staffing, transfer and workload) may be hampering factors.</li> </ul> <p>It is logical in the modified PDM.</p> <p>See 1. Performance</p> <ul style="list-style-type: none"> <li>Overall, inputs have been sufficient both from Japan and Pakistani sides.</li> </ul>



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<p>to achieving Outputs)</p>	<p>Are the important assumptions on the achievement of Outputs still valid /whether there are any influence? Important Assumptions: 1) Equipment will be purchased, delivered, and installed as planned. 2) Counterpart of the Project will allocate in GCT Railway Road/TEVTA Panjab Province.</p>	<p>See 1. Performance and 2. Implementation Process</p>	<p>See 1. Performance and 2. Implementation Process</p> <ul style="list-style-type: none"> <li>Important assumptions are still valid.</li> <li>Possible concerns are 1) tax for purchasing equipment importing through local agents, 2) maintenance costs for facilities and equipment.</li> <li>Areas for further improvement will be 1) Workshop with facilities for equipment installation, 2) accelerated budget implementation.</li> </ul>
<p>Quantity, quality and timing of inputs</p>	<p>Have inputs from Japan and Pakistan been appropriate in terms of quantity, quality and timing? How have problems of inputs in terms of quantity, quality and timing been coped with?</p>	<p>See 1. Performance and 2. Implementation Process</p> <ul style="list-style-type: none"> <li>Appropriateness of Japanese Inputs (Experts, equipment, C/P training, operational costs) in terms of quantity, quality and timing, and any problems and how to cope with them</li> <li>Appropriateness of Pakistani Inputs (C/PS, office and facilities, operational costs) in terms of quantity, quality and timing, and any problems and how to cope with them</li> </ul>	<p>See 1. Performance and 2. Implementation Process</p> <ul style="list-style-type: none"> <li>Inputs from Japan have been mostly appropriate except for delay in fielding Japanese experts</li> <li>Inputs from Pakistan have been mostly appropriate except for frequent changes of C/PS (particularly PD and PM) including those who participated in C/P training in Japan</li> </ul>

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(4) Impact (prospect)	Prospect of achievement of Overall Goal	Is Overall Goal likely to be achieved in about 3 years time after the project? Overall Goal-modified: Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is applied into other institutes Mechanical and Architecture) in Punjab.	See 1. Performance	See 1. Performance <ul style="list-style-type: none"> <li>It is likely to be achieved.</li> <li>In fact, revised curriculum (1<sup>st</sup> year Mechanical) has already been introduced to other institutes since last year. For subsequent introduction of 2<sup>nd</sup> and 3<sup>rd</sup> year revised curriculum, TEVTA has already initiated to make a concrete plan of actions with budget requirements.</li> <li>Currently, there is no other GCT providing Architecture DAE course in Panjab. However, there is a good possibility of applying a part of revised curriculum into other institutions having civil engineering department as basic subjects are common. In addition, Architecture department is willingly sharing their revised curriculum with other institutions (Government College of Technology for Women, Lyton Road, Lahore, and GCT Raiwind Road Lahore) upon their request.</li> <li>Not Identified concretely as yet.</li> </ul>
	Causal relationship	Are there any hampering factors to achieve Overall Goal? Is Project Purpose contributing to the likely achievement of Overall Goal? Is the important assumption on the achievement of Project Purpose still valid /whether it is going to be fulfilled? Important Assumption: Economic development and labor demand for the middle level technical personnel will be continued.	<ul style="list-style-type: none"> <li>Information on hampering factors</li> <li>Verification of logic model</li> </ul>	<p><u>PDI</u>-modified</p> <ul style="list-style-type: none"> <li>It is logical. If GCT R.R. is developed as COE, it is certainly expected to disseminate the best practices, if not all but possible portions with necessary arrangements, to other institutions in Panjab.</li> </ul> <p>See (1) Relevance- Necessity</p> <ul style="list-style-type: none"> <li>Still valid and remain unchanged</li> </ul>

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	<ul style="list-style-type: none"> <li>• There is no negative impact identified nor envisaged.</li> <li>• Positive impact is on gender issues. First ever admission of female students in Architecture department in GCT R.R. took place. In 2009, the 1<sup>st</sup> batch of female students entered GCT R.R. and the 2nd batch will be recruited this year as well. This was made possible with strong commitment and support from TEVTA and GCT, R.R. Although in private and higher educational institutions, co-education is common in Panjab and Pakistan there was not opportunity for females to enter government college like GCT R.R. where they can study at a reasonable cost (fees are much lower than those in private) with good educational environment which opens up their future opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Influence on the development of policy, legislation, standards</li> <li>• Influence on social and cultural aspects (eg. gender, human rights, poverty)</li> <li>• Influence on the economy of the society in question, stakeholders of the project and beneficiaries</li> <li>• Others</li> </ul>	<p>Is there any impact (positive/negative) other than the Overall Goal/Is there any measurement for minimizing negative impact?</p>	<p>Ripple effects</p>
	<p>See (1) Relevance- Necessity</p> <ul style="list-style-type: none"> <li>• Policy environment/institutional settings are likely to continue, which is all conducive to the project.</li> </ul>	<p>See (1) Relevance - Necessity</p>	<p>Are policy/institutional settings likely to continue in the following:</p> <ol style="list-style-type: none"> <li>1) National development policy</li> <li>2) Industrial and labor policy</li> <li>3) TVET policy</li> </ol>	<p>Policy and institutional environment</p>
<p>(5) Sustainability (prospect)</p>	<ul style="list-style-type: none"> <li>• For sustained project effects, the following legislative/institutional aspects may need to get more attentions:</li> <li>1) Recruitment and deployment policy of instructors: Newly recruited instructors are contract basis for long time and this situation may affect negatively on the motivation of instructors compared to those of permanent bases. Transfer system following grading scales may also restrict the retaining trained instructors in GCT R.R.</li> <li>2) 2 shift teaching system: Like other government colleges, GCT R.R. is also adopting 2 shift teaching system which causes a quite heavy burden on instructors. As they have to teach in 2 shifts, they do not have enough time for improving quality of their teaching as instructors of COE (eg. Preparing for lesson, material development, research work and so forth).</li> </ul>	<ul style="list-style-type: none"> <li>• Status of industrial and labour legislations toward sustainability</li> <li>• Status of TVET-related legislations toward sustainability</li> </ul>	<p>Whether the relevant regulations and legislations have been/will be established</p>	
	<p>See 1. Performance and 2. Implementation Process</p> <ul style="list-style-type: none"> <li>• Development of human resources has been steadily progressing in the project and expected to continue to do so even after the project to reach an appropriate level to disseminate in the future by C/P organizations.</li> </ul>	<ul style="list-style-type: none"> <li>• Status of human resource development of C/P organizations</li> </ul>	<p>Have human resources been developed to continue/scale-up/disseminate the approach and outputs/effects of the project after the Project ends?</p>	<p>Organizational and financial aspects</p>

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	<p>Do C/Ps organizations and personnel have a sufficient sense of ownership of the Project Do C/Ps organizations and personnel have a sufficient sense of ownership of the Project ??</p> <p>Have C/Ps organizations undertaken measures to secure sufficient funds for continuing/scaling-up/disseminating the project approach and outputs/effects?</p> <p>Have the methods of technical assistance been accepted (appropriateness of technical level, social/behavioral aspects)?</p> <p>Whether maintenance of equipment is done properly/Will C/Ps be able to do so independently?</p> <p>Can C/Ps be technically independent and implement/sustain the project approach after the Project ?</p>	<ul style="list-style-type: none"> <li>Ownership at GCT level</li> <li>Ownership at Provincial level (TEVTA)</li> <li>Ownership at Federation level (NAFTEC)</li> </ul> <ul style="list-style-type: none"> <li>Status of present budget allocation</li> <li>Prospects for budget allocation including recurrent costs</li> </ul> <ul style="list-style-type: none"> <li>Status of ability, technical capacity of C/P</li> <li>Actual performances of activities</li> </ul> <ul style="list-style-type: none"> <li>Status of ability, technical capacity of C/P</li> <li>Actual performances of activities</li> </ul> <ul style="list-style-type: none"> <li>Status of ability, technical capacity of C/P</li> <li>Actual performances of activities</li> </ul> <ul style="list-style-type: none"> <li>Status of ability, technical capacity of C/P</li> <li>Actual performances of activities</li> </ul> <ul style="list-style-type: none"> <li>Whether C/Ps have commitment to disseminate it</li> </ul>	<ul style="list-style-type: none"> <li>C/Ps organizations and personnel of TEVTA and GCT R.R. have a strong sense of ownership as directly executing role in the project implementation.</li> </ul> <ul style="list-style-type: none"> <li>TEVTA's next year budget is approximately 2.25 billion Rs for development budget and 4.5 billion for non-development budget for the year 2011-12, this is the same level as this year.</li> <li>GCT is likely to cover the costs that have been borne by the project but need to be met by themselves</li> </ul> <p>See 2. Implementation process</p> <ul style="list-style-type: none"> <li>The methods of technical assistance have been well accepted and appropriate.</li> </ul> <ul style="list-style-type: none"> <li>There is a concern whether GCT R.R. can systematically and organizationally execute maintenance work including budget appropriation because more equipment requires more budget to maintenance.</li> </ul> <ul style="list-style-type: none"> <li>For Mechanical department, 10 out of 19 subjects are revised that require new skills and knowledge. For these 10 subjects, at this moment, there are 3 potential master trainers and rest (up to 10 at least) will need to be trained.</li> <li>For Architecture department, there are 10 instructors including newly recruited, and female instructors, who have a good knowledge and skill, as well as well motivated so that they will be able to perform as mater trainers.</li> <li>Overall commitment of C/Ps, both GCT R.R. and TEVTA demonstrate very well and dissemination exercise will be in place if required financial, time-wise conditions are met, and a concrete plan for moving forward is developed by TEVTA.</li> </ul>
<p>Technical aspect</p>			

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	Dissemination/replication	Whether dissemination mechanism is embedded in the Project	<ul style="list-style-type: none"> <li>Mechanism to disseminate to other courses in GCT</li> <li>Mechanism to disseminate to other TVET institutions in the region</li> <li>Possibility of dissemination at federal level (mechanism, restricting factors, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Dissemination in GCT: Since Principal oversees all the project activities as PM, basis for dissemination within GCT is already in place. Strengthening management system (Output 1), TMC (Output 2), placement support (Output 3) are all possible aspects of dissemination to other departments. Sharing exercises will be undertaken in the 2<sup>nd</sup> half of the project.</li> <li>Dissemination into other institutions in Panjab: This is primarily the TEVTA's responsibility and TEVTA already initiated to disseminate revised curriculum and continue to do so by preparing a plan of actions with budget requirements. The project will also start, other than the public relations work (Newsletters and Website), holding seminars after completing the one cycle of TMC in the 2<sup>nd</sup> half of the project.</li> <li>Dissemination at Federal level: This is beyond project purview and Pakistan side will take care.</li> <li>No possibilities identified and envisaged.</li> </ul>
Social, cultural and environmental aspects	Are there any possibilities hampering sustained effects due to the lack of considerations for females, poor, socially disadvantaged groups?	Status of present situation and prospects		

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Form 1: Questionnaire for Japanese Experts (日本人専門家)

添付資料2-1

「パキスタン国技術教育改善プロジェクト」中間レビュー調査にかかる質問票をお送りいたします。  
 お忙しいところ大変恐縮ですが、ご協力のほど宜しくお願い申し上げます。

- ◆本質問票は、「実施プロセス」5項目(妥当性、有効性、効率性、インパクト、自立発展性)の領域から構成されています。
- ◆選択肢を示している設問につきましては、該当欄を一か所選択(塗りつぶし、網掛け等)してください。
- ◆なお、1-4の選択肢では、以下のような4段階スケールを意味します。
  1. 全くそうでない (=Not at all)、2. あまりそうでない (Not much/A little)、3. まあそうである (Some/More or less so)、4. 十分そうである (Very much so)
- ◆記述回答を求めている設問につきましては具体的に説明いただけますようお願いいたします。
- ◆質問の意味が不明な場合、回答不可能な場合、現地インタビュー時に説明することが適当な場合は、その旨をお書きください。
- ◆チームアドバイザーにおかれては、「ご担当業務」にかかる回答の際は「ご担当業務を含み、プロジェクト全体」を念頭に回答願います。

お名前: \_\_\_\_\_  
 ご担当分野: \_\_\_\_\_

0. 実施プロセス (Implementation Process)						
評価設問 (大項目)	評価設問 (小項目)	1	2	3	4	記述欄
1. 活動の進捗状況	1 プロジェクト開始以降これまでのご担当の活動は計画通りに実施されましたか？ 不十分 / 遅延している活動があれば、そのその内容・理由を記載願います。	1	2	3	4	理由:
	2 ご担当の活動を特に阻害した要因があればお答えください。	阻害要因:				
	3 ご担当の活動を特に促進した要因があればお答えください。	促進要因:				
	4 ご担当の活動計画で中間レビューを期に、内容・実施予定時期などで、特に変更したほうが良いと思う点があれば記載願います。	変更点:				
	5 (チームアドバイザーのみ) 短期専門家の活動は順調でしたか？ 順調でなかった場合にはその理由を記載願います。	1	2	3	4	理由:
2. 技術移転の方法の妥当性	6 技術移転の方法に問題がありましたか？ 問題があった場合はどのようなことが記載願います。	無		有		問題:
	7 問題があった場合、それに対してどのように工夫・対処されましたか？	工夫・対処:				
	8 技術移転の進捗状況は順調でしょうか？ 順調でない場合はその理由をお答えください。	1	2	3	4	理由:
3. プロジェクトモニタリングの仕組み	9 ご担当の活動のモニタリングの仕組みはどのようなものでしょうか？	仕組みの説明 (誰がどのような方法・頻度でモニタリングし、結果をフィードバックをするシステムか。):				
	10 ご担当の活動のモニタリングは定期的に行なわれていましたか？また、どれくらいの頻度で行っていましたか？	1	2	3	4	頻度:
	11 モニタリング結果のフィードバックは行なわれていましたか？そうでない場合はその理由をお答えください？	1	2	3	4	理由:
意思決定過程	12 プロジェクト運営に関する意思決定 (例: 計画修正、人員・予算配置、他) は円滑でしたか？困難なことがあれば、記載願います。	1	2	3	4	困難な点:
	13 プロジェクト運営に関し、日本とパキスタン側との合同での定期的な会議 (JCCなど) について、改善点があれば記載願います。	改善点:				

関係者間のコミュニケーション	14	JICA事務所とのコミュニケーションは円滑でしたか？(必要な対応は適切に行われましたか？)改善点があれば記載願います。	1	2	3	4	改善点：	
	15	JICA本部とのコミュニケーションは円滑でしたか？(必要な対応は適切に行われましたか？)改善点があれば記載願います。	1	2	3	4	改善点：	
	16	特に関連する主要ドナーはありますか？ある場合は、機関名と関連内容を記載してください。	無	有	機関・関連内容：			
	17	関連する主要ドナーがある場合、必要なコミュニケーションがとれていましたか？改善点があれば記載願います。	1	2	3	4	改善点：	
	18	日本人専門家間で十分なコミュニケーションがとれていたと思いますか？改善点があれば記載願います。	1	2	3	4	改善点：	
	19	GCTとは十分なコミュニケーションがとれていましたか？改善点があれば記載願います。	1	2	3	4	改善点：	
	20	TEVTAとは十分なコミュニケーションがとれていましたか？改善点があれば記載願います。	1	2	3	4	改善点：	
	21	NAVTECとは十分なコミュニケーションがとれていましたか？改善点があれば記載願います。	1	2	3	4	改善点：	
	22	C/Pとのコミュニケーションで語学上の問題はありましたか？その場合どのように対処されていましたか？	無	有	問題と対処：			
	23	パキスタン側のC/Ps / 機関の間では十分なコミュニケーションがとれていましたか？改善点があれば記載願います。	1	2	3	4	改善点：	
4. 相手国のオーナーシップ	24	GCTのプロジェクトに対する認識は高いと思いますか？回答の理由・事例を記載してください。	1	2	3	4	理由・事例：	
	25	TEVTAのプロジェクトに対する認識は高いと思いますか？回答の理由・事例を記載してください。	1	2	3	4	理由・事例：	
	26	NAVTECのプロジェクトに対する認識は高いと思いますか？回答の理由・事例を記載してください。	1	2	3	4	理由・事例：	
カウンターパート配置の適切性	27	ご自身のC/P(または担当部署)は、専門分野、組織における位置づけ(役割・職位)、能力などに関して適任だったと思いますか？適任でないと思われる場合はその理由を記載してください。	適任	不適任	理由：			
	28	ご自身のC/P(または担当部署)は適切な人数だったと思いますか？適切でないと思われる場合はその理由を記載してください。	適切	不適切	理由：			
	29	ご自身のC/P(または担当部署)は適切なタイミングで配置されたと思いますか？適切でないと思われる場合はその理由を記載してください。	適切	不適切	理由：			
プロジェクトへの参加度合い	30	GCTのプロジェクトへの参加度合いは高いですか？回答の理由や特に事例があれば記載してください。	1	2	3	4	理由・事例：	
	31	TEVTAのプロジェクトへの参加度合いは高いですか？回答の理由や特に事例があれば記載してください。	1	2	3	4	理由・事例：	
	32	NAVTECのプロジェクトへの参加度合いは高いですか？回答の理由や特に事例があれば記載してください。	1	2	3	4	理由・事例：	
予算負担	33	後述						

1. 妥当性 (Relevance)						
評価設問 (大項)	評価設問 (小項目)	1	2	3	4	記述欄
1. 必要性	34 ターゲットグループのニーズについて、計画時からの変化がありますか？有る場合は、説明願います。	有	無			変更点：
2. 手段としての適切性	35 プロジェクトの「アプローチ」とは、PDM初版によれば、「プロジェクトのアプローチ(訓練サイクル、就職支援の仕組みなど)」とありますが、この意味で宜しいでしょうか？他にあれば、ご説明願います。	よい	違う			「アプローチ」の意味・定義：
	36 プロジェクトの「アプローチ」は適切だと思いますか？そうでない場合は、適切でない理由を説明願います。	はい	いいえ			適切でない点：
	37 対象地域(パンジャブ州)は適切な選択だったと思いますか？適切でない点があれば記載願います。	はい	いいえ			適切でない点：
	38 対象校(GCT)の選定・規模は適切であったと思いますか？適切でない点があれば記載願います。	はい	いいえ			適切でない点：
	39 対象分野(機械・建築)の選定・規模は適切であったと思いますか？適切でない点があればその理由を記載願います。	はい	いいえ			適切でない点：
	40 その他のターゲット・グループ(TEVTA、NAVTEC、産業界、学生)の選定・規模は適切だったと思われますか？適切でない点があれば記載願います。	はい	いいえ			適切でない点：
	41 他ドナー支援との調整、連携・相乗効果はありますか？有る場合は説明願います。	無	有			説明：
	42 日本の他支援との調整、連携・相乗効果はありますか？有る場合は説明願います。	無	有			説明：
日本の技術の優位性	43 日本の技術や類似案件の経験を活用した指導をされていますか？それは特にどのような点でしょうか？	1	2	3	4	説明：
	44 日本の技術の優位性を十分に活かす際の阻害要因があれば記載してください。	阻害要因：				
2. 有効性 (Effectiveness) :						
評価設問 (大項)	評価設問 (小項目)	1	2	3	4	記述欄
1. プロジェクト目標の達成	45 プロジェクト終了時点でプロジェクト目標が達成される見込みは高いと思いますか？達成するのが困難と思われる場合、それは特にどのような点で、その理由/阻害要因は何ですか？	1	2	3	4	困難な点・理由/阻害要因：
	46 プロジェクト目標に至るまでの外部条件(「訓練を受けた教員がGCTで勤務し続ける」)は満たされそうですか？問題があれば説明願います。	はい	いいえ			問題点：
3. 効率性 (Efficiency) :						
評価設問 (大項)	評価設問 (小項目)	1	2	3	4	記述欄
1. 因果関係	47 活動から成果(アウトプット)に至る外部条件による影響はありましたか？有った場合はどのようなことが説明願います。 外部条件： ①「機材が計画通り購入・搬入・据え付けられる」 ②「プロジェクトのC/PsがGCTとTEVTAに配置される」	無	有			説明：
	48 ご自身の派遣期間は適切でしたか？適切でなかった場合その理由をお答えください。	1	2	3	4	理由：



質、 タイ ミン グ	専門家派遣	49	ご自身の派遣のタイミングは適切でしたか？ 適切でなかった場合その理由をお答えください。	1	2	3	4	理由：
		50	ご自身の派遣に関し改善すべき点があれば記載してください。	改善点：				
		51	ご自身以外の専門家の派遣期間は適切だと思いますか？ 適切でなかった場合、分野とその理由をお答えください。	1	2	3	4	分野・理由：
		52	ご自身以外の専門家の派遣のタイミングは適切だと思いますか？ 適切でなかった場合、分野とその理由をお答えください。	1	2	3	4	分野・理由：
		53	ご自身以外の専門家の派遣に関し改善すべき点があれば記載してください。	改善点：				
	機材供与	54	ご担当分野における供与機材の選定(種類や仕様)は適切でしたか？ 適切でなかった場合、それはどのような点で、どのように対処しましたか？	1	2	3	4	説明：
		55	上記機材の供与のタイミングは適切でしたか？ 適切でなかった場合、それはどのような点で、どのように対処しましたか？	1	2	3	4	説明：
		56	上記機材の数量は適切でしたか？ 適切でなかった場合それはどのような点で、どのように対処しましたか？	1	2	3	4	説明：
		57	上記機材のコスト(搬送、据え付け等含む)は妥当でしたか？ 妥当でなかった場合それはどのような点で、どのように対処しましたか？	1	2	3	4	説明：
	C/P研修	58	本邦C/P研修は有効でしたか？ また、改善すべき点があれば記載してください。	1	2	3	4	改善点：
	現地活動費	59	日本側負担の現地活動費の規模(金額)、支出タイミング等について問題はありますか？ 有る場合はご説明願います。	無	有	説明：		
	C/P配置	60	既出					
	施設・機材配備	61	先方が提供したプロジェクト事務所の施設環境は良好でしたか？ 良好でなかった場合、どのような問題がありましたか？	1	2	3	4	問題点：
	ローカルコスト負担	62	パキスタン側によるプロジェクト運営費の支出規模(金額)は、活動を実施するうえで適切でしたか？ 適切でなかった場合、どのような問題がありましたか？	1	2	3	4	問題点：
		63	パキスタン側によるプロジェクト運営費の支出タイミングは適切でしたか？ 適切でなかった場合、どのような問題がありましたか？	1	2	3	4	問題点：

4. インパクト (Impact)									
評価設問 (大項)		評価設問 (小項目)			1	2	3	4	記述欄
1. 上位目標達成の見込み	阻害要因	64	上位目標①：「産業界のニーズを踏まえた技術教育を提供するためのアプローチが、GCT内の他のコースに適用される。」 上記の(1)アプローチの具体的内容、(2)適用の意味(導入を指すのかなど)について、どのようなことを想定されているか説明願います。	説明：					
		65	上記の説明に基づく上位目標①の発現は見込めそうですか？(プロジェクト終了約3年後の事後評価において効果の検証ができるかという観点含む) 発現が見込めない場合はその理由(またはどのような条件が整ったら見込めるか)を記載願います。	はい	いいえ	見込めない理由 / 発現の条件：			
	因果関係	66	上位目標②(検討中)：「産業界のニーズを踏まえた技術教育を提供するためのアプローチが、パンジャブ州内の他校に適用される」 上記の(1)アプローチの具体的内容、(2)適用の意味(導入を指すのかなど)について、どのようなことを想定されているか説明願います。	説明：					
		67	上記の説明に基づく上位目標②の発現は見込めそうですか？(プロジェクト終了約3年後の事後評価において効果の検証ができるかという観点含む) 発現が見込めない場合はその理由(またはどのような条件が整ったら見込めるか)を記載願います。	はい	いいえ	見込めない理由 / 発現の条件：			
	68	プロジェクト目標から現行上位目標①に至るまでの外部条件(「経済開発と中間層の技術者へのニーズが継続して存在する。’)は満たされる可能性が高いと思われますか？また、回答の理由・根拠などがあれば記載してください。	1	2	3	4	理由：根拠：		
		69	上位目標②を追加する場合、外部条件を修正する必要があると思いますか？有る場合はどのような外部条件が考えられるでしょうか？	無	有	修正内容：			
2. 波及効果	正のインパクト	70	上位目標①②以外の効果・影響が想定されますか？ プラスの面について、もしあれば記載願います。	無	有	プラスの面：			
	負のインパクト	71	上位目標①②以外の効果・影響が想定されますか？ マイナスの面について、もしあれば記載願います。	無	有	マイナスの面：			

5. 自立発展性 (Sustainability) : プロジェクトの効果はプロジェクト終了後も持続・発展が見込めるか。											
評価設問 (大項)		評価設問 (小項目)				1	2	3	4	記述欄	
1. 政策・制度面	政策	72	既出								
	制度	73	プロジェクトの効果は持続・発展されるうえで、特に整備されるべき関連規制・法制度があるでしょうか？有る場合には、どのような内容でしょうか？				無	有			整備されるべき規制・法制度：
2. 組織・財政面		74	プロジェクト終了後も効果をあげていくための活動を実施するに足る人材育成は順調でしょうか？特に問題があれば、説明願います。				1	2	3	4	問題点：
		75	GCTのプロジェクトに対するオーナーシップは高いと思いますか？不十分である場合、特にどのような点がお答えください。				1	2	3	4	不十分な点：
		76	TEVTAのプロジェクトに対するオーナーシップは高いと思いますか？不十分である場合、特にどのような点がお答えください。				1	2	3	4	不十分な点：
		77	NAVTECのプロジェクトに対するオーナーシップは高いと思いますか？不十分である場合、特にどのような点がお答えください。				1	2	3	4	不十分な点：
		78	GCTはプロジェクトの成果を継続・拡大・普及してゆくにあたり、必要予算を十部に確保できると思われませんか？難しいと思われる場合、特にどのような面で不足すると思いませんか？				1	2	3	4	説明：
		79	TEVTAはプロジェクトの成果を継続・拡大・普及してゆくにあたり、必要予算を十部に確保できると思われませんか？難しいと思われる場合、特にどのような面で不足すると思いませんか？				1	2	3	4	説明：
		80	GCTはパンジャブ州のCOEとして中心的な役割を担っていきそうでしょうか？回答の理由もお答えください。				1	2	3	4	理由：
	3. 技術面		81	ご担当分野の業務は、プロジェクト終了までにC/Pが単独でできるようになると思われますか？そうでない場合、その理由をお答えください。				1	2	3	4
		82	移転された技術はGCT内部で定着してゆくと思われますか？そうでない場合、その理由をお答えください。				1	2	3	4	理由：
		83	移転された技術はTEVTA内部で定着してゆくと思われますか？そうでない場合、その理由をお答えください。				1	2	3	4	理由：
		84	資機材の維持管理は適切に行われていくと思われますか？そうでない場合、その理由をお答えください。				1	2	3	4	理由：
4. 普及		85	プロジェクトの効果がGCT内に普及してゆくメカニズムはプロジェクト構築されつつありますか？それはどのようなメカニズムですか？				1	2	3	4	普及メカニズム：
		86	プロジェクトの効果が、パンジャブ州内の他校にも普及してゆく可能性は高いですか？そうでない場合、その理由をお答えください。				1	2	3	4	理由：
		87	プロジェクトの効果が、連邦レベルで普及してゆくことが可能と思われますか？そうでない場合、その理由をお答えください。				1	2	3	4	理由：
5. 社会、文化、環境面		88	女性、貧困層、社会的弱者等への配慮不足により持続的効果を妨げる可能性はありそうですか？有る場合はどのようなことが説明願います。				無	有			阻害要因：

**6. その他コメント**

本プロジェクトに関し、また、中間レビュー調査に関してコメントがございましたら自由に記入願います。ご協力ありがとうございました。

**Form 2 : Questionnaire for Counterparts in NAVTEC**

This is a questionnaire for the counterparts of the **Project for Development of Centre of Excellence (CoE) for Technical Education in Pakistan** (Dec.2008-Nov. 2013) for the Mid Term Review.

The Project will be analyzed using the 5 Evaluation Criteria (1. Relevance, 2. Effectiveness, 3. Efficiency, 4. Impact and 5. Sustainability) based on the performances to date as planned in the PDM (Project Design Matrix).

The Review Team would appreciate it very much if you could provide your honest answers/opinions which will be used only for review purposes for further improving the Project.

Please provide the following basic information:

Your Name: \_\_\_\_\_

Your Designation in the Organization: \_\_\_\_\_

Please provide answers below:

- Note: a. Please select one option out of 4 scales, where corresponds.  
 ( 1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)  
 b. Please select either “No” or “Yes”, where corresponds

**0. IMPLEMENTATION PROCESS**

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Monitoring	1	Do you think that you have been well informed of the project implementation ?	1	2	3	4	If Not, please explain:
	2	Do you think that the project has been implemented without major delay/problems to date ?	1	2	3	4	If Not, please explain:
Decision Making	3	Do you think that decision making mechanism such as Joint Coordination Committee (JCC) has functioned properly and necessary decisions (eg. Revising plans, personnel/budgets allocations etc.) have been made timely ?	1	2	3	4	If Not, please explain:

**1. RELEVANCE**

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	No	Yes	Explanations
Necessity	4	Are there any changes in policy and priority area of the Pakistan government on human resources development since 2008 ?	No	Yes	If Yes, please explain:
	5	Have there been any changes noticed in economic development and labor demand for the middle level technical personnel since	No	Yes	If Yes, please explain:

Mid Term Review: The Project for Development of Centre of Excellence (CoE) for Technical Education in Pakistan

		2008 ?					
	6	Do you agree that the project has been exactly meeting the needs of the region ?	1	2	3	4	If Not, please explain:
	7	Do you think that the project is meeting the needs of industry ?	1	2	3	4	If Not, please explain:
Priority	8	Do you agree that the project is quite relevant to the present industrial and TVET policies in Pakistan ?	1	2	3	4	If Not, please explain:
Appropriate ness of the strategy	9	What do you think are distinct features of the project ? What do you most appreciate about the project ?	Please explain:				
	10	Are there any aspects that need to be reoriented in the project design in the middle of the project period ?	No	Yes	If Yes, please explain:		
	11	How are the progress of other TVET institutions selected as COEs in Pakistan ?	Please explain:				
	12	Are there any major developments of other development partners' assistance to the TVET sector since 2008 ?	No	Yes	If Yes, please explain:		

## 2. EFFECTIVENESS

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Prospect of the Project Purpose	13	Do you agree that Project Purpose is like to be achieved by the end of the project ?  <u>Project Purpose:</u> Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as COE.	1	2	3	4	If Not, please explain:

## 3. EFFICIENCY

No related questions.

#### 4. IMPACT

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Likelihood of achieving Overall Goal	14	Do you think that Overall Goal is likely to be achieved in about 3 years after the Project ends ?  <b>Overall Goal:</b> Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other courses in GCT.</u>	1	2	3	4	If Not, please explain:
	15	How far do you see it feasible that acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other institutions in Panjab ?</u>	1	2	3	4	If Not, please explain:

#### 5. SUSTAINABILITY

Questions	SI	Sub-Questions			Explanations
Policy / Institutional aspects	16	Are there any laws/regulations or institutional arrangements required for the project effects will sustain and grow after the project ends ?	No	Yes	If Yes, please explain:
Dissemination mechanism	17	How far do you see it feasible that acquired knowledge of the project, which provides technical education to fulfill industrial needs, is disseminated widely to other TVET institutions <u>outside of Panjab?</u>	No	Yes	If Yes, please explain:

#### 6. OTHERS

If you have any further comments/opinions on the Project, please feel free to write below:

*Thank you very much for your kind cooperation.*

**Form 3 : Questionnaire for Counterparts in TEVTA**

This is a questionnaire for the counterparts of the **Project for Development of Centre of Excellence (CoE) for Technical Education in Pakistan** (Dec.2008-Nov. 2013) for the Mid Term Review.

The Project will be analyzed using the 5 Evaluation Criteria (1. Relevance, 2. Effectiveness, 3. Efficiency, 4. Impact and 5. Sustainability) based on the performances to date as planned in the PDM (Project Design Matrix).

The Review Team would appreciate it very much if you could provide your honest answers/opinions which will be used only for review purposes for further improving the Project.

Please provide the following basic information:

Your Name: \_\_\_\_\_

Your Designation in the Organization: \_\_\_\_\_

Please provide answers below:

- Note: a. Please select one option out of 4 scales, where corresponds.  
( 1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)  
b. Please select either "No or "Yes", where corresponds

**0. IMPLEMENTATION PROCESS**

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	Sl	Sub-Questions	1	2	3	4	Explanations
Progress of Activities	1	As for activities you are responsible for, do you think that planned activities have been carried out without serious delays nor problems ?	1	2	3	4	If Not, please explain:
Technical assistance	2	Are you satisfied with the technical assistance/advice from the Japanese Experts in terms of contents, levels, methods, time devoted and so forth ?	1	2	3	4	If Not, please explain:
Monitoring	3	Do you think that monitoring of the Project has been properly conducted to date ?	1	2	3	4	If Not, please explain:
Decision Making	4	Do you think that decision making mechanism has functioned properly and necessary decisions (eg. Revising plans, personnel/budgets allocations etc.) have been made timely ?	1	2	3	4	If Not, please explain:
Communication	5	Do you think that you have maintained a good/sufficient communication with JICA Experts ?	1	2	3	4	If Not, please explain:
	6	Do you think that there has been a good/sufficient communication among the GCT, TEVTA, NAVTEC counterparts ?	1	2	3	4	If Not, please explain:
Ownership	7	Do you think that counterpart-organizations (GCT,	1	2	3	4	If Not, please explain:



		TEVTA, NAVTEC) have taken initiatives to implement the project, when necessary ?				
Hampering factors	8	Other than the above points, are there any factors affecting <u>negatively</u> in the process of project implementation so far ?	No	Yes	If Yes, please explain:	
Contributing factors	9	Other than the above points, are there any factors affecting <u>positively</u> in the process of project implementation so far ?	No	Yes	If Yes, please explain:	

## 1. RELEVANCE

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Necessity	10	Do you agree that the project has been exactly meeting the needs of <u>your organization</u> ?	1	2	3	4	If Not, please explain:
	11	Do you agree that the project has been exactly meeting the needs of <u>GCT Railway</u> ?	1	2	3	4	If Not, please explain:
	12	Do you agree that the project has been exactly meeting the needs of <u>industry</u> in your region ?	1	2	3	4	If Not, please explain:
	13	Do you agree that the project has been exactly meeting the needs of <u>students</u> in your region ?	1	2	3	4	If Not, please explain:
Priority	14	Do you agree that the project is quite relevant to the present industrial and TVET policies in your region ?	1	2	3	4	If Not, please explain:
Appropriateness of the strategy	15	Do you agree that mechanical and architecture courses are appropriate as targets of the project ?	1	2	3	4	If Not, please explain:
	16	Are there any aspects that need to be reoriented in the project design in the middle of the project period ?	No	Yes	If Yes, please explain:		

## 2. EFFECTIVENESS

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Prospect of the Project Purpose	17	Do you agree that Project Purpose is like to be achieved by the end of the project ?  <u>Project Purpose:</u>	1	2	3	4	If Not, please explain:

		Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as COE.					
	18	Do you perceive that potential industry/employers of Mechanical and Architecture courses are showing more interests positively as before ?	1	2	3	4	If Not, please explain:
	19	Do you perceive that students of Mechanical and Architecture courses are more satisfied with the courses as before ?	1	2	3	4	If Not, please explain:
Causal relationship	20	Do you agree that trained staff is likely to remain working for GCT after the project period ?	1	2	3	4	If Not, please explain:
	21	Are there any factors affecting negatively in achieving the Project Purpose ?	No	Yes			If Yes, please explain:

### 3. EFFICIENCY

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Achievements of Outputs		Please answer the question(s) on Output(s) that you are responsible for/engaged in. For Project Director, please answer all the questions on Output 1 - Output 4					
	22	Do you agree that following Output has been produced as planned to date, and will continue to do so ?  <b>Output 1:</b> Management system of GCT is strengthened as a CoE which can offer technical education relevant to industrial needs.	1	2	3	4	If Not, please explain:
	23	Do you agree that following Output has been produced as planned to date, and will continue to do so?  <b>Output 2:</b> Training management cycle of Mechanical and Architecture courses is strengthened.	1	2	3	4	If Not, please explain:
	24	Do you agree that following Output has been produced as	1	2	3	4	If Not, please explain:

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		planned to date, and will continue to do so ?  <b>Output 3 :</b> Placement support of GCT is strengthened.					
	25	Do you agree that following Output has been produced as planned to date and will continue to do so ?  <b>Output 4:</b> Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.	1	2	3	4	If Not, please explain:
Important assumptions	26	Do you agree that equipment has been purchased, delivered and installed as planned?	1	2	3	4	If Not, please explain:
		Do you agree that services of JICA Experts have been appropriate in terms of:					
JICA Experts Team	27	Numbers	1	2	3	4	If Not, please explain:
	28	Timing	1	2	3	4	If Not, please explain:
	29	Length	1	2	3	4	If Not, please explain:
	30	Quality (eg. technical expertise, communication skills etc.)	1	2	3	4	If Not, please explain:
		Do you agree that equipment items provided by Japan have been appropriate in terms of:					
Equipment provided by Japan	31	Numbers (quantity)	1	2	3	4	If Not, please explain:
	32	Timing	1	2	3	4	If Not, please explain:
	33	Quality, type and kind	1	2	3	4	If Not, please explain:
C/P Allocation by Pakistan side	34	Were there any difficulties/problems in allocating necessary counterparts ?	No	Yes			If Yes, please explain:
Local Costs by Pakistan side	35	Were there any difficulties/problems in allocating necessary funds for meeting the local costs for the Project ?	No	Yes			If Yes, please explain:

#### 4. IMPACT

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Likelihood of achieving Overall Goal	36	Do you think that Overall Goal is likely to be achieved in about 3 years after the Project ends ?  <b>Overall Goal:</b> Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other courses in GCT.</u>	1	2	3	4	If Not, please explain:
	37	How far do you see it feasible that acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other institutions in Panjab ?</u>	1	2	3	4	If Not, please explain:
Ripple effects	38	Do you foresee any other unplanned effects positively or negatively ?	No	Yes			If Yes, please explain:

#### 5. SUSTAINABILITY

Questions	SI	Sub-Questions	1	2	3	4	Explanations
In view of sustainability of the project effects after the JICA support ends, do you have any concerns in terms of:							
Policy / Institutional aspects	39	Any laws/regulations or institutional arrangements	No	Yes			If Yes, please explain:
Organizational aspect	40	Human resources in your organizations	No	Yes			If Yes, please explain:
Financial sustainability	41	Financial aspect of your organization.	No	Yes			If Yes, please explain:
Technical sustainability (technical capacity)	42	Technical capacity of your organization	No	Yes			If Yes, please explain:
Dissemination mechanism	43	Dissemination mechanism at national level	No	Yes			If Yes, please explain:

#### 6. OTHERS

If you have any further comments/opinions on the Project, please feel free to write below:

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*Thank you very much for your kind cooperation.*

**Form 4 : Questionnaire for Counterparts in GCT Railway**

This is a questionnaire for the counterparts of the **Project for Development of Centre of Excellence (CoE) for Technical Education in Pakistan** (Dec.2008-Nov. 2013) for the Mid Term Review.

The Project will be analyzed using the 5 Evaluation Criteria (1. Relevance, 2. Effectiveness, 3. Efficiency, 4. Impact and 5. Sustainability) based on the performances to date as planned in the PDM (Project Design Matrix).

The Review Team would appreciate it very much if you could provide your honest answers/opinions which will be used only for review purposes for further improving the Project.

Please provide the following basic information:

Your Name: \_\_\_\_\_

Your Designation in the Organization: \_\_\_\_\_

Please provide answers below:

- Note: a. Please select one option out of 4 scales, where corresponds.  
( 1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)  
b. Please select either "No" or "Yes", where corresponds

**0. IMPLEMENTATION PROCESS**

( 1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	Sl	Sub-Questions	1	2	3	4	Explanations
Progress of Activities	1	As for activities you are responsible for, do you think that planned activities have been carried out without serious delays nor problems ?	1	2	3	4	If Not, please explain:
Technical assistance	2	Are you satisfied with the technical assistance/advice from the Japanese Experts in terms of contents, levels, methods, time devoted and so forth ?	1	2	3	4	If Not, please explain:
Monitoring	3	Do you think that monitoring of the Project has been properly conducted to date ?	1	2	3	4	If Not, please explain:
Decision Making	4	Do you think that decision making mechanism has functioned properly and necessary decisions (eg. Revising plans, personnel/budgets allocations etc.) have been made timely ?	1	2	3	4	If Not, please explain:
Communication	5	Do you think that you have maintained a good/sufficient communication with JICA Experts ?	1	2	3	4	If Not, please explain:
	6	Do you think that there has been a good/sufficient communication among the GCT, TEVTA, NAVTEC counterparts ?	1	2	3	4	If Not, please explain:
Ownership	7	Do you think that counterpart-organizations (GCT,	1	2	3	4	If Not, please explain:

		TEVTA, NAVTEC) have taken initiatives to implement the project, when necessary ?				
Hampering factors	8	Other than the above points, are there any factors affecting <u>negatively</u> in the process of project implementation so far ?	No	Yes	If Yes, please explain:	
Contributing factors	9	Other than the above points, are there any factors affecting <u>positively</u> in the process of project implementation so far ?	No	Yes	If Yes, please explain:	

## 1. RELEVANCE

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Necessity	10	Do you agree that the project has been exactly meeting the needs of <u>your organization</u> ?	1	2	3	4	If Not, please explain:
	11	Do you agree that the project has been exactly meeting the needs of <u>TEVTA</u> in your region ?	1	2	3	4	If Not, please explain:
	12	Do you agree that the project has been exactly meeting the needs of <u>industry</u> in your region ?	1	2	3	4	If Not, please explain:
	13	Do you agree that the project has been exactly meeting the needs of <u>your students</u> in GCT Railway ?	1	2	3	4	If Not, please explain:
Priority	14	Do you agree that the project has been on track with the present industrial and TVET policies in your region ?	1	2	3	4	If Not, please explain:
Appropriateness of the strategy	15	Do you agree that mechanical and architecture courses are appropriate as targets of the project ?	1	2	3	4	If Not, please explain:
	16	Are there any aspects that need to be reoriented in the project design in the middle of the project period ?	No	Yes			If Yes, please explain:

## 2. EFFECTIVENESS

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Prospect of the Project Purpose	17	Do you agree that Project Purpose is like to be achieved by the end of the project ?	1	2	3	4	If Not, please explain:

		<u>Project Purpose:</u> Mechanical and Architecture courses of GCT provide quality in technical education based on industrial needs as COE.					
	18	Do you perceive that potential industry/employers of Mechanical and Architecture courses are showing more interests positively as before ?	1	2	3	4	If Not, please explain:
	19	Do you perceive that students of Mechanical and Architecture courses are more satisfied with the courses as before ?	1	2	3	4	If Not, please explain:
Causal relationship	20	Do you agree that trained staff is likely to remain working for GCT after the project period ?	1	2	3	4	If Not, please explain:
	21	Are there any factors affecting negatively in achieving the Project Purpose ?	No	Yes			If Yes, please explain:

### 3. EFFICIENCY

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Achievements of Outputs		Please answer the question(s) on Output(s) that you are responsible for/engaged in. For Principal/Project Manager, please answer all the questions on Output 1 - Output 4					
	22	Do you agree that following Output has been produced as planned to date, and will continue to do so ?  <b>Output 1:</b> Management system of GCT is strengthened as a CoE which can offer technical education relevant to industrial needs.	1	2	3	4	If Not, please explain:
	23	Do you agree that following Output has been produced as planned to date, and will continue to do so?  <b>Output 2:</b> Training management cycle of Mechanical and Architecture courses is strengthened.	1	2	3	4	If Not, please explain:



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	24	Do you agree that following Output has been produced as planned to date, and will continue to do so ?  <b>Output 3 :</b> Placement support of GCT is strengthened.	1	2	3	4	If Not, please explain:
	25	Do you agree that following Output has been produced as planned to date and will continue to do so ?  <b>Output 4:</b> Knowledge and experience of GCT is shared with other courses in GCT and other TVET institutes.	1	2	3	4	If Not, please explain:
Important assumptions	26	Do you agree that equipment has been purchased, delivered and installed as planned?	1	2	3	4	If Not, please explain:
JICA Experts Team	Do you agree that services of JICA Experts have been appropriate in terms of:						
	27	Numbers	1	2	3	4	If Not, please explain:
	28	Timing	1	2	3	4	If Not, please explain:
	29	Length	1	2	3	4	If Not, please explain:
	30	Quality (eg. technical expertise, communication skills etc.)	1	2	3	4	If Not, please explain:
Equipment provided by Japan	Do you agree that equipment items provided by Japan have been appropriate in terms of:						
	31	Numbers (quantity)	1	2	3	4	If Not, please explain:
	32	Timing	1	2	3	4	If Not, please explain:
	33	Quality, type and kind	1	2	3	4	If Not, please explain:
C/P Allocation by Pakistan side	34	Were there any difficulties/problems in allocating necessary counterparts ?	No	Yes	If Yes, please explain:		
Local Costs by Pakistan side	35	Were there any difficulties/problems in allocating necessary funds for meeting the local costs for the	No	Yes	If Yes, please explain:		

		Project ?			
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#### 4. IMPACT

(1= Not at all, 2= Not much/A little, 3= Some/More or less so, 4= Very much so)

Questions	SI	Sub-Questions	1	2	3	4	Explanations
Likelihood of achieving Overall Goal	36	Do you think that Overall Goal is likely to be achieved in about 3 years after the Project ends ?  <b>Overall Goal:</b> Acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other courses in GCT.</u>	1	2	3	4	If Not, please explain:
	37	How far do you see it feasible that acquired knowledge of the project, which provides technical education to fulfill industrial needs, is <u>applied into other institutions in Panjab ?</u>	1	2	3	4	If Not, please explain:
Ripple effects	38	Do you foresee any other unplanned effects positively or negatively ?	No	Yes			If Yes, please explain:

#### 5. SUSTAINABILITY

Questions	SI	Sub-Questions	1	2	3	4	Explanations
In view of sustainability of the project effects after the JICA support ends, do you have any concerns in terms of:							
Policy / Institutional aspects	39	Any laws/regulations or institutional arrangements	No	Yes			If Yes, please explain:
Organizational aspect	40	Human resources in your organizations	No	Yes			If Yes, please explain:
Financial sustainability	41	Financial aspect of your organization.	No	Yes			If Yes, please explain:
Technical sustainability (technical capacity)	42	Technical capacity of your organization	No	Yes			If Yes, please explain:
Dissemination mechanism	43	Dissemination mechanism at national level	No	Yes			If Yes, please explain:

#### 6. OTHERS

If you have any further comments/opinions on the Project, please feel free to write below:

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*Thank you very much for your kind cooperation.*

**Form 5 : Interview Questions for Students in GCT Railway**

*This is a sheet of Interview Questions for Students in GCT Railway under the **Project for Development of Centre of Excellence (CoE) for Technical Education in Pakistan** (Dec.2008-Nov. 2013) for the Mid Term Review.*

0. Are you aware of the project supported by JICA ?

**A. Output 1**

1. The project has been making GCT more relevant to industrial needs through various ways. Have you noticed or participated in the following events ? If yes, how useful do you feel and what do you suggest for further improvements?

- a. Inviting firms to workshops organized by GCT
- b. Lectures given by lecturers from industry
- c. Internship programmes
- d. Inviting firms to Skill competitions
- e. Inviting firms to exhibitions of students products

2. Do you think that GCT Railway maintains a good quality of technical education as a COE ? What do you think about GCT as a COE in terms of teacher quality, facility and equipment, curriculum and teaching materials and others ?

**B. Output 3**

3. GCT Railway has been providing placement support in many ways. Have you utilized or been benefitted from the followings?

- a. Database (computerized data) on job information and job seeking ?
- b. Career counseling services
- c. any other placement support

**C. Project Purpose**

4. Have you noticed any other improvements which may be brought by the project intervention for the last 2.5 years of project implementation?

5. Do you think that you will be in a better position in securing jobs after completing GCT courses, compared to ones in other similar institutions in the region ?

6. What kind of jobs do you expect to get ? Do you think there is a good potential in the job market that you are interested in ?

7. How far are you satisfied with the course contents as useful for future work expected?

8. What are the prospects for future demands for DAE graduates of your major (either Mechanics or Architecture) in general, and for female GCT-DAE graduates of your major in particular ?

9. Any other comments.

*Thank you very much for your kind cooperation.*

