

(2) Maradana CoT

Maradana TC was established in 1893 as Ceylon Technical College, which was the government technical school. It was situated at close proximity to the Ceylon Government railway Terminal building at Maradana in Central Colombo. Prior to the establishment of the Ceylon Medical College, chemistry, physics, biology and science for medical students were conducted at Ceylon Technical College. Courses in science for school teachers were also provided by the college. The college continued to hold regular classes for the external degrees of the University of London, until the faculty of engineering at the University of Ceylon commenced in 1950. In 1953, the arts and crafts section of the college was transferred to the Government College of Fine arts, and in 1960 the full time technician courses were transferred to the newly established institute of practical technology at Katubbeda, which was later upgraded as University of Moratuwa. Therefore, the Maradana TC is one of the oldest institutions for technical education, and formed the basis of the Medical College and the University of Moratuwa.

There are three course categories, namely Engineering Technician & Craft Courses, Business Studies Courses and General Studies Courses. There are 24 kinds of courses under these categories. Most of them offer national certificates and three courses offer diplomas, namely jewellery design and manufacture, accountancy and marketing management.

Maradana TC will be upgraded and change its name as Maradana CoT which will provide trainings of NVQ levels 5 & 6 based on the policy of MSDVTE. However, the policy is in the process of obtaining cabinet approval and detail plan of operation for upgrading is not decided yet.

3-2. Analysis of the current situation and problem of the counterpart organizations

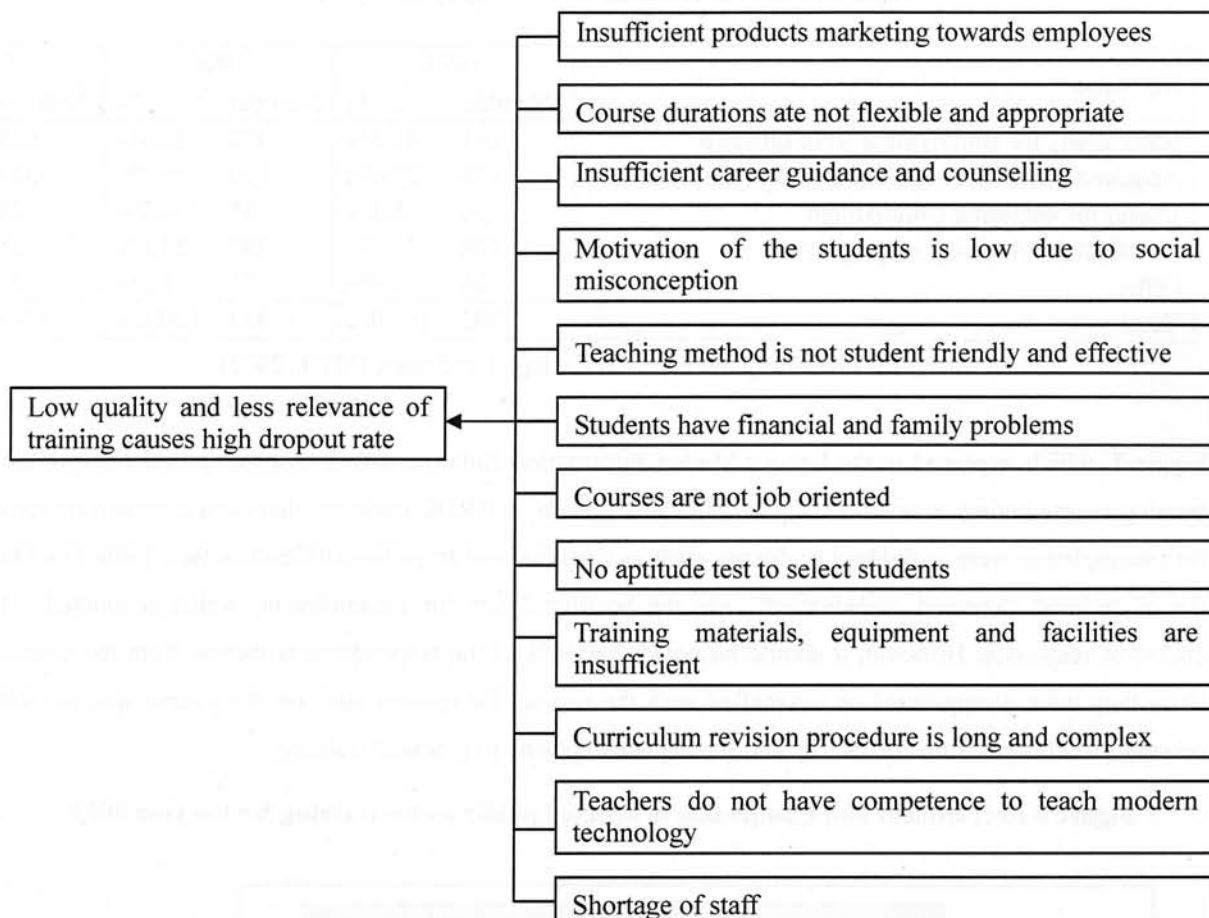
In the PCM workshop held in February 2005, the current situation of the DTET was analyzed and the below listed problems were identified as the most serious problems of the DTET:

- (1) Low quality and less relevance of training causes high dropout rate;
- (2) Level and quality of the training courses do not fulfil industry's needs;
- (3) Decision making process is hampered due to lack of sufficient information; and
- (4) Insufficient opportunity for further training courses for craftsmen and supervisory level persons.
- (5) Inefficient utilization of financial and human resource

- (1) Low quality and less relevance of training causes high dropout rates

For low quality and less relevance in training delivery¹, the following cause-effect relationships have been stated.

¹ Teaching and learning process



The recent study done by DTET with the sample of the TC graduates in 1995 and 1996 named, "Tracer Study of Technical College Graduates" is important as it clearly indicated the existing problem on quality and relevance of the training courses. For example, as shown in Table 7, more than 33% of the passed-out students² for year 1995/96, who responded to the questionnaire, were unemployed at the time of the study. Around 24% of the respondents stated that the training they have undergone had no effect on obtaining employment.

Table 9 Status of employment

Year of graduate	1995		1996		Total	
	Number	%	Number	%	Number	%
Wage employed	623	50.6%	725	48.3%	1,348	49.3%
Full-time self employed	79	6.4%	88	5.9%	167	6.1%
Unemployed	427	34.7%	499	33.2%	926	33.9%
Other	102	8.3%	189	12.6%	291	10.7%
Total	1,231	100.0%	1,501	100.0%	2,732	100.0%

(Source: Tracer Study of Technical College Graduates, DTET, 2002)

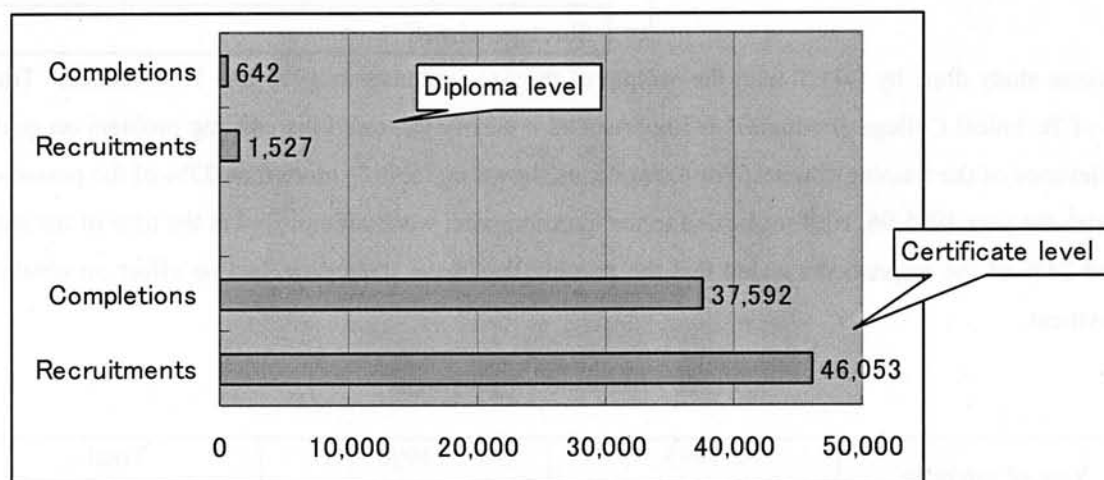
² In Sri Lanka, the words "passed-out students" are usually used instead of "graduate students" for those who completed the training courses". The word "graduate" is avoided to use in this case, since it gives an impression of "university graduates".

Table 10 Effect of training on obtaining employment

Response	1995		1996		Total	
	Number	%	Number	%	Number	%
Basic needs for employment were satisfied	291	41.5%	377	46.4%	668	44.1%
Acquired additional qualifications for employment	173	24.6%	160	19.7%	333	22.0%
Useful for obtaining employment	36	5.1%	38	4.7%	74	4.9%
No effect on obtaining employment	178	25.4%	187	23.0%	365	24.1%
Other	24	3.4%	51	6.3%	75	5.0%
Total	702	100.0%	813	100.0%	1515	100.0%

(Source: Tracer Study of Technical College Graduates, DTET, 2002)

Figure-8, which appeared in the Labour Market Information Bulletin, shows that many students quit the training course before completion. The recent study done by NHRDC indicates that most common reasons for incompleteness were individual problems, such as financial and travelling difficulties (see Table 11). On the other hand, "secured employment" was the positive factor for incompleteness, which accounted for 16.7% of responses. However, it should be noted that 10% of the respondents withdrew from the course since they were disappointed or unsatisfied with the course, for reasons such as, the course was not job oriented, teaching was unsatisfactory and inadequate exposure to practical training.

Figure 8 Recruitment and Completion in selected public sector training for the year 2003

(Source: Labour Market Information Bulletin, TVEC, Vol. 01/04 – June 2004)

Table 11 Reasons for incompleteness of the courses

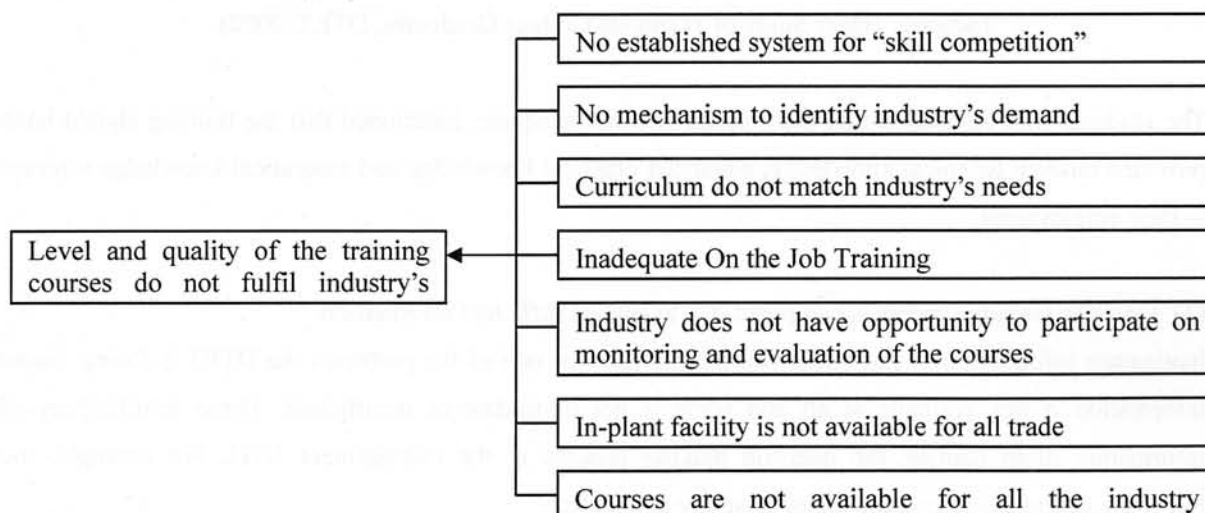
Reasons for leaving TC	No of answers	Percentage
1. Financial problems	235	36.5%
2. Traveling difficulties	166	23.3%
3. Secured employment	127	16.9%
4. Personal problems	113	14.8%
5. Indisposition	105	13.6%
6. Course not job oriented	85	10.7%
7. Teaching unsatisfactory	73	9.1%
8. Failure to meet expectations	72	8.9%
9. Inadequate exposure to practical	71	8.8%
10. Family problems	68	8.4%
11. Could not understand	63	7.7%
12. Facilities inadequate	62	7.6%
13. Losing interest in the course	34	4.0%
14. Marriage	18	2.1%
15. Problems with teachers	17	2.0%

(Note: Multiple answers. Total number of samples (students) was 878)

Study on the incidence of dropping out from courses conducted by technical colleges – some selected tables, by NHRDC (draft and unpublished)

(2) Level and quality of the training courses do not fulfil industry's needs

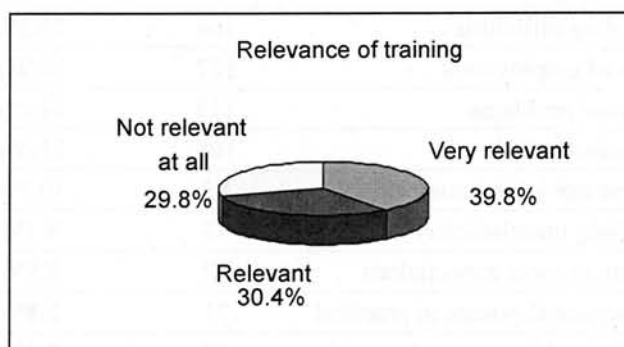
The participants of the PCM workshop identified the causes that the level and quality of the training courses do not fulfil industry's needs as:



The earlier mentioned tracer study done by DTET clearly indicates that the passed-out students had evaluated the training course they had received as not relevant and inadequate to competencies needed at work. Around 30% of the students responded that the training they had received was not relevant at all to

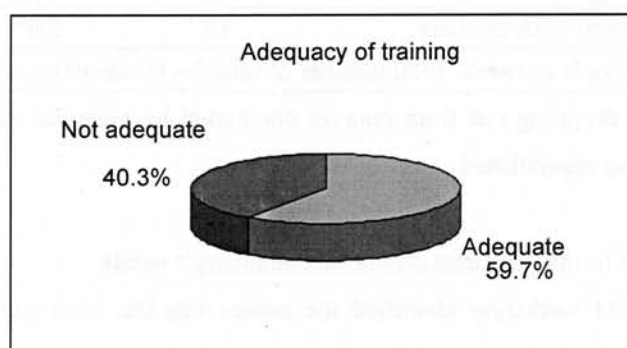
the competencies needed at work (see Figure 9), and around 40% of the students responded that the training they had received was not adequate to the competencies needed at work (see Figure 10).

Figure 9 Relevance of training to competencies needed at work 1995/96



(Source: Tracer Study of Technical College Graduates, DTET, 2002)

Figure 10 Adequacy of training received to competencies needed at work 1995/96



(Source: Tracer Study of Technical College Graduates, DTET, 2002)

The students who responded that the training was not adequate, mentioned that the training should have provided modern technical knowledge, advanced practical knowledge and theoretical knowledge relevant to their employment.

(3) Decision making process is hampered due to lack of sufficient information

Inadequate information management was suggested to be one of the problems the DTET is facing. Some information is not available at all and some is not up-to-date or insufficient. These insufficiency of information often hamper the decision making process at the management level. For example, the following essential information is not currently available:

① Labour market information

Labour market information is collected by TVEC quarterly mainly by analysing advertisements. The analysis of advertisements in the quarterly report gives general trends of labour force requirements by each trade, and levels of each profession. However, it is apparent that analysis of advertisements provides only a

part of labour market information. It was mentioned in the recent study done by ILO that only 1.3% of the youths obtain jobs successfully by responding to advertisements (School-to-work-transition of youth in Sri Lanka, ILO/IMCAP, final revised report, 2004). Moreover, it does not tell what the TC students are most interested in, i.e. employment demand for each specific subject that the students of the TC are following.

② Survey on Industry needs

The staff at management level of the TC do not have useful information to make decisions on what kinds and levels of training courses should be added in future to the TC. They do not have sufficient sources of information to decide how the existing training courses should be changed, according to the rapidly changing needs of the industry. Lack of close collaborations with industry is the main reason for the above.

③ Feedbacks of the passed out students

There are only few studies had done with regard to the feedbacks of the passed-out students. The annual statistical handbook of the DTET concentrated on numbers of students who applied, recruited, completed and passed the final exam, however, no record on employment status of the passed-out students, which is the most essential data to evaluate the relevance, adequacy and effectiveness of the training courses, was gathered.

(4) Insufficient opportunity for further training courses for craftsmen and supervisory level persons

① NVQ system has not been functioning

As mentioned earlier, there is shortage of middle level technicians to fill the demand of the industry. One of the reasons is that the craftsmen and supervisory level persons do not have sufficient opportunity for further training. The NVQ system has been introduced to solve this problem, so that even persons who do not have GCE O/L or A/L can be trained further up to NVQ level 7. However, the system is still in an introductory stage and has not been functioning.

② Insufficient numbers of alternative career paths for A/L dropouts : new diploma courses needed

There are several diploma courses for engineering and technical subjects, however, they require GCE A/L qualification for entrance. Therefore, students of the TC, who do not have A/L qualifications, are not qualified to apply for these courses. Introduction of new diploma courses is essential to solve this problem.

③ Training systems do not allow multiple entry and exit for diploma level courses

There are very limited opportunity for the working people to study further especially for diploma level, since the present training system does not allow multiple entry and exit for diploma level courses. Module based curricula and weekend courses should be fully introduced to solve this problem.

(5) Inefficient utilization of financial and human resources

It was suggested that DTET does not utilize financial and human resources efficiently. The causes of this problem are:

① Social rate of return on investment is not available

DTET does not have ways and means to evaluate and measure the outputs/ impacts created by what they have invested. Therefore, they are not in a position to identify in the efficiency of the investment, i.e. training provision. Furthermore, since they do not know the degree of the outputs, social rate of return is

not available, with which they can justify and insist the necessity of the fund.

② No performance based appraisal system for staff

Staffs of the DTET have not been appraised based on their performance. Therefore, some of the staff do not have much incentive to work hard or to improve their skills. DTET had recognized the problem and has developed a manual for performance based appraisal; however, it has not been introduced yet.

③ DTET does not have provision to utilize self-generated income

DTET is allowed to carry out income generating activities; however it should send the generated income back to the Treasury, and can not use it for the development of the TC, as it does not have provision to do so. This regulation discourages TC to implement income generation activities effectively.

The above mentioned main problems of DTET are the causes of the following negative effects;

- TC students do not fully contribute economic advancement of the country;
- Some courses in TC are not attractive and popular;
- Shortage of middle level technicians; and
- Inefficiency in overall management of the DTET.

And finally, these negative effects are the causes of “youth unemployment/ underemployment” and “youth unrest” in Sri Lanka. The relationship between youth unemployment and youth unrest was already explained in the Chapter 2.

The participants of the PCM workshop stated that DTET should solve the above mentioned problems and attain the below listed situations:

- High quality and relevance of training and low dropout rates;
 - Level and quality of the training courses fulfil industry’s needs;
 - Decision making process is facilitated by proper information management system;
 - Sufficient opportunity for further training courses for craftsmen and supervisory level persons;
- and
- Efficient utilization of financial and human resources.

4. Project Strategy

4-1. Project Strategy

4-1-1. Selection of Approach

As discussed above, problems in TVET sector are clearly identified by Sri Lanka Government and many reforms are undergoing. At the PCM workshop held during JICA Preparatory Study, following problems are identified; (1) Low quality and less relevance of training causes high dropout rate, (2) Level and quality of the training courses do not fulfil industry’s needs, (3) Decision making process is hampered due to lack of sufficient information, (4) Insufficient opportunity for further training courses for workers in craftsmen level and supervisory level persons, (5) Inefficient utilization of financial and human resource.

This project contributes mainly to solve the problems (1), (2) and (4). Problem (1) would be solved by implementation of training courses with adequate practical classes and efficient management that assures course-related employment of passed out students. Japanese TVET system has an advantage for the technical transfer on this issue. As for problem (2), Technical Committee will be established for each model course to build strong connection between industries and training providers. CoT, which is the main target of the Project, is intended to train middle level technicians thus contribute to resolve the mismatch of demand and supply in Sri Lankan labour market (related to problem (4)). Information management, pointed out at problem (3), covers information management in various levels. The Project will deal with information management related to job seeking process, such as career guidance or tracer studies of passed-out students. Problem (5) is not identified as an output in the Project as the matter directly concerns with human and financial management of Sri Lankan Government. However, Japanese system and experience can be provided by the Japanese experts when technical advice is necessary.

4-1-2. Selecting a Model College of Technology

Sri Lankan government has a strategy to train middle class technicians by upgrading nine Technical Colleges (TCs) to Colleges of Technology (CoTs) in each province. In Maradana TC, as a model CoT, new training courses in NVQ level 5 & 6 will be implemented and some experimental management of training delivery will be tested.

Maradana TC now provides 24 training courses in nine fields. JICA has a difficulty to cover all these nine fields under the Project because of budget constraint, possibility of recruitment of Japanese experts, and technical advantages of Japan. Therefore the Project takes responsibility to introduce courses of NVQ level 5&6 in the field of Information and Communication Technology, Mechatronics and Metal Work, which are priority fields in Sri Lankan industries. The Project will establish a “Model” course of NVQ level 5&6 by transferring know-how of training management, from preparation of training courses to employment of passed-out students. The established “Model” will be disseminated to other training courses in Maradana CoT and other TC/CoT.

To strengthen the relationship between industries and training providers, “Technical Committee” represented by representatives from industries and training providers will be established for each model course. Both representatives will discuss on the contents of training, including facilitation of in-plant training for students. Information on job opportunities will be also shared in the committee.

4-1-3. Establishing a system in “Model” sharing

The “Model” established in Maradana CoT should be shared among TC/CoT and other TVET institutions. Improvement of managerial and technical capacity of DTET is necessary, for DTET is responsible for the management of all TC/CoT in Sri Lanka. DTET will closely monitor every activity of the Project so that DTET itself finally be able to introduce new training courses all over the country. The outcome of the Project will then have bigger impact.

4-1-4. Coordination with other institutions/ donors

Skills Development Project (SDP) initiated by ADB covers almost all TVET sector. Phase I is expected to be completed by October 2006 and Phase II is now under preparation. Under the Phase II of SDP, cooperation at the level of CoT is considered. The close coordination and alignment with ADB's cooperation is very important for the Project.

Keeping coherency with Sri Lankan policy is indispensable and new model courses should be implemented according to new Sri Lankan NVQ and competency-based curriculum. Coordination with other Departments in MSDVTE, especially TVEC which is responsible for overall NVQ Framework, NAITA, which is responsible for National Skill Standards, and NITESL which is responsible for Competency-based curriculum.

4-2. Implementation Arrangement

4-2-1. Counterpart Organization

The organisation chart for the Project is shown in Annex- 3. The key organizations of the Project are; Department of Technical Education and Training (DTET), Maradana College of Technology and Joint Coordinating Committee (JCC). DTET is now in charge of 36TCs and one of the major departments in Sri Lankan TVET sector. DTET is also responsible for the establishment of nine CoTs. JICA has been dispatched experts to DTET as a Technical Education Advisor since 1996. The experts introduced some activities for the improvement of training delivery, such as production of teaching materials and implementation of skills competitions. To assure the continuation of the expert's activities, DTET will keep playing an important role in the Project, especially in the field of management in training delivery and establishment of model course dissemination system. DTET is also responsible in sharing the experience of Maradana CoT with other TC/CoT in implementation model courses and trial of new training delivery. Each activities in Maradana CoT should be traced and monitored by the staff of DTET and should be documented. The Chief Advisor and Coordinator of the Project will have an office in DTET.

Maradana CoT will be the first CoT which offers courses of NVQ level 5 & 6 along with new management in training delivery and establishment of Technical Committee to have active participation from industries. The experts in each field will be based in Maradana CoT and transfer technologies mainly to teaching staff of Maradana CoT. As the new model courses are launched, the experts will make some advice in organizing seminars or short term courses for teaching staff in other TC/CoT. Maradana CoT is very suitable for the project site, as it is directly connected with DTET building. The close relationship with DTET is thus expected as a "Model" College of technology.

The Joint Coordination Committee will meet at least once a year and whenever necessity arises to review the project outputs and discuss on activities for the next coming year according to the Plan of Operation. The member of JCC are; Director General of TVEC, Chairman of NAITA, Director General of NITESL, Chairman of VTA and representatives from industries, Representative from Department of External Resources, and Resident Representative of JICA.

4-2-2. Budget allocation

The total budget of DTET for the year 2004 is Rs. 569.30 million. The one for Maradana TC is Rs. 23 million. When the Project starts, the recurrent cost of Maradana CoT is expected to increase, because of increase of students, new assignment of teaching staffs or running cost of equipment and machinery. Budget allocation from Sri Lankan Government with no delay is necessary. The Project will consider the sustainability of budget management of CoT. At the beginning stage of the Project, JICA makes some financial support and gradually shifts to Sri Lankan budget. The discussion on cost sharing between Japanese and Sri Lankan sides will be held when necessary.

5. Project Design

5-1. Project Purpose

The Project Purpose is “DTET gains managerial and technical capacity to establish CoTs in each province by introducing model courses of NVQ level 5&6 in Maradana CoT to train middle level technicians”. Although the establishment of the CoT is the policy of the Sri Lankan government, this has not yet been achieved. Therefore, the Project activities for the Maradana TC will be the “pilot activities” which will be the model for DTET to establish other CoT in each Province. The Maradana TC was selected as the most suitable site for the model school, considering its geographical and demographical advantages. As it is located in the centre of Colombo city, which is the commercial capital of the country, it has access to a large population and a high number of qualified applicants, and appropriate opportunities for in-plant training.

In this regard, the indicators and milestones to be used for the project are as follows:

- (1) XX% of the students enrolled in the model courses, complete the courses and obtain a diploma;
- (2) XX% of the passed-out students of the model courses obtain expected level of course-related employment;
- (3) Youth applying for the model courses increase XX% annually;
- (4) Manuals developed in Maradana CoT are utilized in other CoT;
- (5) More curricula are available for NVQ level 5&6;
- (6) More teaching staff are qualified to teach NVQ level 5&6;
- (7) More courses are available for NVQ level 5&6;
- (8) Nine different corporate plans for each CoT are formulated.

The appropriate quantities in indicators need to be identified through base-line survey in the early stages of the project.

5-2. Overall Goal

Four overall goals of the Projects were identified as follows:

- (1) Quality of the trained manpower in TC/CoT meets the labour market demand;
- (2) DTET will utilize lessons and experience of Maradana COT in establishing proposed COTs in provincial basis.

These overall goals are closely related with the “Vision” of the DTET that aims at providing demand driven, cost efficient training, meeting with the changing socio-economic needs of the country. They are also closely related with the “Mission” of the DTET, which aims at being a forefront sustainable organization to provide training programmes of quality and relevance with the partnership of industry and business. The establishment of the CoT is the national policy on the Technical Education, to be achieved in the near future.

The indicators for the overall goals are listed below:

- (1) XX% of the students of the TC/CoT obtained course-related employment on/ after completion of the courses;
- (2)-1. Application of the youth to TC/CoT is increased by xx% annually;
- (2)-2. Every course obtains sufficient number of qualified students according to their seating capacity;
- (2)-3. Dropout rates of the students reduce from present 20% into 10%;
- (3) DTET produces 1000 technicians of NVQ level 5&6 annually; and
- (4) Nine CoT are established in each province

At the time of the preparatory study, the specific quantity in indicators (1), (2)-1. and (4) were not identified, due to lack of information. It is advised to fix the appropriate quantity for each indicator, in the early stages of the Project, so that they will be more measurable.

5-3. Outputs

The Outputs to be produced for attaining the Project Purpose are listed below:

- (1) NVQ level 5&6 model training courses are introduced and conducted effectively in Maradana CoT in the fields of Information and Communication Technology, Mechatronics, and Metal Work;
- (2) DTET establishes a system for the training courses to fulfil industry’s needs;
- (3) Management capacity of DTET on training delivery is improved; and
- (4) Accumulated know-how in Maradana CoT is shared among the TC/CoT, in the field of preparation of NVQ level 5&6 courses and improved methods on training delivery.

Output-(1) and (4) signify two stages. At the time of the preparatory study, three courses, i.e., Information and Communication Technology, Mechatronics, and Metal Work were already identified. On the other hand, during the series of discussion with DTET and JICA for the preparatory study, they both agreed that a few more courses in NVQ level 5&6 needed to be introduced in Maradana CoT, so that it would be more

complete “model” for other CoT. The development of new additional courses would be implemented under Output (4). It was also agreed that the subject of the courses, ways and means of assistance of JICA will be decided in due course, considering the progress of the Project, and the additional courses will be introduced with the initiative of DTET and facilitation of JICA, in which DTET will have a more leadership.

The three model courses to be introduced are chosen after the series of discussions held between DTET and JICA, and having several interviews with industry to ascertain their needs. First of all, at the time of Preparatory Study, the model school was chosen and the DTET had requested the cooperation of the Japanese government for the following courses:

- (1) Electronics/ Information and communication technology (hardware)
- (2) Mechanical technology/Computer control technology
- (3) Gem and jewellery making
- (4) Welding technology
- (5) Wood work technology
- (6) Refrigeration/Air condition technology
- (7) Pipe fitting
- (8) Electric technology
- (9) Tourism/Hotel service
- (10) Automobile repair/Small engine repair technology

JICA had taken industry needs, availability of Japanese experts, available cooperation period into considerations, and selected the above mentioned three courses. At the moment, DTET does not have any course on Information and Communication Technology, except a course for data entry and a software application study, such as MS Word or MS Excel as an introductory subject of the several courses. On the other hand, there are private computer classes in various levels everywhere in urban areas in Sri Lanka. Some schools are well established with cooperation of overseas technical schools which require expensive tuition fees, some schools teach mainly by using textbooks as they do not have enough numbers of computers. The target groups of these private schools are various from primary school students to A level students. These courses are aiming at providing training on how to operate applications and, sometimes,, training on programming. However, none of these courses teach subjects such as installation, maintenance of hardware. Non availability of such hardware-oriented class is because the initial investment cost like teaching equipment and machineries for such class is rather high. Therefore, private companies are reluctant to invest such a big amount of money considering the difficulty of cost recovery in a short term.

Therefore, there are acute shortages in numbers of skilled technician on computer hardware. According to the study done by the JICA Long term expert attached to DTET in 2004, most of the private companies and international institutions which have IT related facilities were complaining about the inadequate after sales service. On the other hand, Sri Lankan government emphasise development of IT under “E-Sri Lanka”

initiatives, of which intention is to introduce IT to government institutions and to promote IT education all over the country. Taking the above mentioned factors into considerations, JICA recognized that it was urgent and essential to introduce a model course on the subject.

There is no public neither private course on Mechatronics, except the courses in the universities, and at the moment, the private companies in this field have to provide on-the-job training for one or two years after recruitment in order to develop the skill of the newly recruited staff up to the required level. According to the interviews made by JICA Preparatory study team, private sector in Mechatronics field was in a view of appreciate on introducing the model course, as they badly require middle level skilled technicians who can contribute soon after recruitment. It was also suggested, by such as BOI and Ministry of Labour Relations and Foreign Employment, that human resource development on the subject may also encourage foreign investment to Sri Lanka.

At present, DTET and Sri Lanka Port Authority have training courses on Welding technology, however, it had been suggested that these courses are low in technical level and do not fulfil industry's needs. Therefore, considerable numbers of Indian metal work technicians are employed for the purpose of construction of harbours and power stations, to compensate the shortage of Sri Lankan technicians. For example, currently, 600 numbers of Indian welders are working for Colombo Dock Yard. 40 numbers and 20 numbers of Indian welders were employed for construction of Keranitissa and Ambilipitiya power stations respectively. Sri Lanka Welding Society, which consists of the representatives of the private companies on the subject, commented in the interview of the JICA Preparatory study team, that the skill level of the planned model course on metal work does match the current needs of the industry, and they had been waiting for introducing such a course.

It is expected that a Technical Committee to be established to play an important role in achieving Output-(2) (described in detail in the below mentioned "activities"). Output-(3), management capacity of the DTET on training delivery is expected to be improved through introducing various pilot activities in Maradana CoT, as well as in nationwide. Training on NVQ level 5&6 will be introduced firstly in the Project, and the know-how gained through the introduction should be adequately recorded and shared by other schools. Output-(4) is expected to be achieved by sharing manuals and holding workshops on the above know-how, as well as expanding the management improvement introduced in Maradana CoT to other schools.

5-4. Activities

The Project Activities to fulfil each Output are suggested in the following table. The detailed plan of operation shall be elaborated in course of the Project:

(1) NVQ level 5&6 model training courses are introduced and conducted effectively in Maradana

CoT in the fields of Information and Communication Technology, Mechatronics, and Metal Work.
<p>(1)-1. Develop syllabi and teaching materials for the model courses</p> <p>(1)-2. Install equipment for the courses</p> <p>(1)-3. Establish training infrastructure for the courses</p> <p>(1)-4. Update teaching staffs' technical skill and teaching method for the courses.</p> <p>(1)-5. Formulate weekly and monthly training schedule along with the time tables to allocate teaching staffs, equipment, and class rooms.</p> <p>(1)-6. Formulate list of training tools and equipment necessary for practical training</p> <p>(1)-7. Conduct courses</p> <p>(1)-8. Monitor and evaluate the courses periodically</p>
(2) DTET establishes a system for the training courses to fulfil industry's needs.
<p>(2)-1. Formulate functional Technical Committee for each model course to establish collaborative relationships between CoT and industry</p> <p>(2)-2. Promote in-plant training of the model courses by enhancing industrial relationship.</p> <p>(2)-3. Enhance public relations of Maradana CoT, including frequent implementation of short-term courses on model courses, periodical industrial placements by teaching staff, etc.</p>
(3) Management capacity of DTET on training delivery is improved
<p>(3)-1. Enhance capacity of DTET to conduct effective career guidance and counselling, including;</p> <ul style="list-style-type: none"> • Base-line survey on present situation of career guidance in Maradana CoT • Introduce a system to collect and update labour market information for the students in Maradana CoT. • Provide advice to the career guidance officers of Maradana CoT in the fields of; effective and continuous implementation of counselling and career guidance, communication with industry, etc. <p>(3)-2. Rationalize selection criteria of Maradana CoT, including introduction of aptitude tests.</p> <p>(3)-3. Support preparation for part-time diploma courses in Maradana CoT for those who are working in industry and who have completed NVQ level 4.</p> <p>(3)-4. Conduct periodical studies at Maradana CoT to ensure the relevance of the quality and level of the training, including;</p> <ul style="list-style-type: none"> • A survey on employment status of the passed-out students. • Evaluation of the training courses with the participation of the students • A survey on quality and skill level of the passed out students by inquiring industries they are working for. <p>(3)-5. Improve training materials including;</p> <ul style="list-style-type: none"> • Student handbooks • Audio-visual teaching tools

	<ul style="list-style-type: none"> • Teachers' guide, etc.
(3)-6.	Conduct and expand National Skill Competitions annually.
(4)	Accumulated know-how in Maradana CoT is shared among the TC/CoT, in the field of preparation of NVQ level 5&6 courses and improved methods on training delivery.
(4)-1.	Support formulation of additional NVQ level 5&6 courses in Maradana CoT with the initiative of DTET.
(4)-2.	Disseminate improved management skills to other TC/CoT, in the fields of; <ul style="list-style-type: none"> • Formulation of training courses of NVQ level 5&6 • Industry collaboration • Career guidance/counselling • Selection criteria • Formulation of part-time diploma courses • Studies to ensure the relevance of the courses
(4)-3.	Improve technical skills of the instructors engaging in teaching of similar subjects to the model courses.

5-5. Inputs

5-5-1. Inputs from Japanese Side

The following inputs from the Japanese will be needed for implementation of the Project:

- (1) JICA Long term experts including;
 - Chief Advisor.
 - Project Coordinator.
 - Information and Communication Technology.
 - Mechatronics.
 - Metal Work
- (2) JICA Short term experts in necessary fields;
- (3) Equipment (necessary for model courses) ; and
- (4) Counterpart training in Japan for;
 - Technical Education Administration
 - Operational management for TC/CoT.
 - Fostering of instructors

The period of assignment of the JICA long-term expert on Metal Work is expected to be two to three years. The new course for Metal Work is ready to start, and textbooks and teaching materials are already well prepared. Then, additional JICA short-term experts and other necessary inputs will be considered upon completion of the assignment on expert on Metal Work. The expertise of the short-time experts will be decided in due course, taking the progress and needs of the Project into consideration.

For Information and Communication Technology and Mechatronics, JICA will initially assign long-term expert. When new training courses are launched, and after some monitoring and completion of course evaluation, Japanese experts will gradually hand their tasks over to Sri Lankan counterpart. Japanese side will offer technical support by Japanese short-term experts.

5-5-2. Inputs from Sri Lankan Side

The following inputs from Sri Lankan side will be needed for implementation of the Project:

- (1) Counterparts including;
 - Director General of DTET.
 - Directors of DTET.
 - Director of Maradana CoT.
 - Teaching staff of the model courses.
 - Administrative personnel.
- (2) Necessary Infrastructure for the Project including;
 - Office facility equipped with office furniture, electricity supply and direct telephone line, for the Project team.
 - Classrooms and workshops for the model courses.
 - Basic facilities for the model courses like white board, desks, chairs and shelves.
- (3) Budget for the Project such as;
 - Expenses for the implementation of the model courses.
 - Construction expenses for the installation of the equipment for the model courses.

5-6. Important Assumptions and Risk Analysis

Important Assumptions for each level of the Narrative Summary of the PDM are as follows:

Levels	Important Assumptions
Overall goal	<ul style="list-style-type: none"> • Cease-fire agreement of the Sri Lankan government and LTTE will be continued
Project Purpose	<ul style="list-style-type: none"> • Economic development and labour demand for the middle level technical personnel will be continued. • Policy and priority area of the Sri Lankan government on human resource development will not be changed • Ministry's policy on establishing CoT will not be changed
Outputs	<ul style="list-style-type: none"> • Process of purchasing the equipment for the model course is not hampered. • Necessary infrastructure of the Project is offered timely. • Counterpart of the Project will continue working for TC/CoT.