Multiplier Training System

Vocational Teacher and Trainer Development

Lao PDR

Analysis, Challenges and Perspectives

Final Report

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Lao-German Development Cooperation

Presented by:

Lao-German Development Consulting
Teamwork for sustainable Technical and Vocational Education and Training

Unit 24, Syvilay Village, Xaythany District, Vientiane Capital
Phone: 021-710507
Fax: 021-711324
Leuthvisay Keola: leuthvisay_keola@yahoo.de
Mobile: 020 5652 9619
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List of Abbreviations

DCT Dual-cooperative Training
DVTE Department of Vocational Teacher Education
DVTET Department of Vocational and Technical Education and Training
ESDF Education Sector Development Framework
FoA Field of Action
FoE Faculty of Engineering
GIZ Gesellschaft für Internationale Zusammenarbeit
HRDME Human Resources development for a Market Economy
ICTT In-company Trainer and Tutors
IVET Integrated Vocational Education and Training
JMP Junior Multiplier
Lao PDR Lao People’s Democratic Republic
LGDC Lao-German Development Consulting
LNCCI Lao National Chamber of Commerce and Industry
MoE Ministry of Education
MoES Ministry of Education and Sports
MTS Multiplier Training System
PES Provincial Education Service
SMP Senior Multiplier
TVET Technical and Vocational Education and Training
VEDC Vocational Education Development Center
VETSA Vocational Education and Training System Advisory (project)
VIP Vocational Information Point
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Executive Summary

(1) MTS was established in Lao PDR by 2003 with the training of a total of 43 Senior (SMP) and 104 Junior Multipliers (JMP). Until 2012 they trained a total 1,800 participants. At the time of the survey 12 SMPs were still available for trainings, but just one at central level (organising and supervising MTS trainings). All 104 JMPs were still available. The survey revealed that MTS fulfilled its task as bridging qualification scheme in pedagogics and didactics for teachers and trainers in TVET. Trainings are considered important and relevant for this target group and the qualification of the multipliers appropriate.

(2) The check of the relevance, effectiveness and significance of the MTS was founded on the assumption that MTS was planned and introduced as a system for training and further training for teachers and trainers in vocational education and training in a situation when no adequate general training opportunities for vocational trainers/teachers existed.

(3) MTS concept offers not only the content of the vocational pedagogical subjects but also the methodical approach “how to deliver and how to transfer the content” of the subject to the applicants. Special intention has been given to the multiplier effect – which contents on the assumption that teachers and trainers trained by MTS became capable to act as “multipliers” within their work environment (schools, enterprises) and to hand on their knowledge to other less qualified and experienced trainers.

(4) The MTS concept further aimed to become a delivery system of further training for all vocational teachers and trainers by providing knowledge and practical guidance about new developments in TVET.

(5) On the other hand the responsible institution in charge of MTS (VEDC) did not achieve to further develop the legal framework and the content of this important instrument as no new subjects were introduced, no legal basic has been established and no additional multipliers have been trained. Furthermore the whole system was not sufficiently integrated into the comprehensive vocational teacher training system of MoES and relied heavily on financing from outside, especially the GIZ.

(6) Having in mind the increasing demand for vocational teachers/trainers and the current status of vocational teacher training the survey also resulted in proposals to further expand MTS by including new subjects and prepare more multipliers The consultants support this view but also suggest to include MTS better in the system of training and further training of vocational teachers/trainers by respective legally binding decisions of MoES addressing also the issue of financing of MTS.

(7) Some special recommendations are important in order to improve relevance, quality and reliability of MTS:

1. **Train key personal of MTS** (building up a pool of at least 25 SMPs and about 50 JMPs)
Review MTS trainer capacities and organize a screening process to select JMPs or – where available – vocational teachers at higher diploma and bachelor level able to be trained and work as SMP,

- Revise the structure and content of the training program (as mentioned above),
- Train new SMPs in a geographically balanced manner (North, South, Centre),
- Re-install (re-vitalise) the MTS Task Force under direct responsibility of teacher training division in DTVET.

2. **Revise and extend contents and establish a new shape of MTS** (multi-layer approach)

- General recapitulation of the structure and the target groups as well as a review of the content of the whole program by adding new pedagogical fields of action (FoA) to the already existing fields of action not only to extent the pedagogical knowledge but also to be aware about new developments in TVET like IVET, DCT and CBT (please see 3.2.2)

3. **Train In-company Trainers and Tutors (ICTT)**

- Based on new training demands resulting from large investments and economic developments especially in the mining and energy sectors in Laos the consultants highly recommend to pay more attention for the ICTT program. Therefore it should be important to provide special training and upgrading programs for those kinds of trainers and tutors which will be confronted with DCT and CBT at the work place.

(8) The assessment shows furthermore that MTS has still not been officially recognised as part of the teacher training system under MoES and no assessment structures have been created by the involved institutions, neither by the VEDC and nor by the superior institution MoES. In order to formalize and to ensure sustainability of MTS, a MTS-Task Force (originally established at the VEDC, but disappeared over the years) has to be re-established with the mandate (at least decree by Minister of Education and Sports) to steer and to monitor MTS programs in an appropriate manner.

(9) Quality management and control (QMA) of MTS-deliveries are part of the MTS Task Force in close cooperation with the principal providers (DTVET/VEDC/GIZ ?)). It should be strongly recommend to introduce and to follow up the internal quality management by special instruments (compare point 3). For external quality control we suggest to refer to the existing Quality Manual of TVET, introduced by the Quality Assurance Centre of MoES in 2010. We suggest to use the existing quality manual in close cooperation with the mentioned department.

(10) Financing is an integral part of the success and sustainable development of MTS. A brief calculation seems to be needed to understand that the upgrading of MTS to a higher level further training tool will be not a minor thing in terms to provide appropriate personal and financial resources. There are several costs to deal with: Training costs for teachers and trainers, costs to expand the pool of SMP/JMP, cost for further expansion of new courses and contents etc. A first raw estimation is around 200 to 300,000 Euro or 3 Billion LAK for the comprehensive re-establishment of MTS (compare point 3.4).

(11) In terms to ensure relevance, ownership and sustainability of MTS new commitments from the partner side should be evident (e.g. legally, organizationally and financially). The conditions
for further supporting MTS by GIZ programs and projects should be newly discussed in the broader context of the establishment of Vocational Teacher Education System in Lao PDR with MoES / DTVET/ including VEDC and FoE-VTTD as two main partners of “Lao-German Teacher and Trainer Education Project” (TTEP). Major questions should be:

- Financing scheme / Income generation (e.g. In-company trainers training for big companies, MMG, Phubia Mining etc.)
- Support from the beneficiary institution like TVET schools (even small but voluntarily),
- Usage of output (Multiplier impact),
- Budget allocation (public expenditures) for further training of
- Allocation of other funds (sponsoring) for teachers and trainers upgrading.

In conclusion there is a strong need to clarify the financial scheme for MTS and to allocate appropriate budgets from the MoE and other interested public and private providers (MoLSW, ) so far they will be involved, to support participative to this crucial aspect of teaching staff development within the on-going reform process of TVET in Laos.

1. Introduction

Establishing and implementing “Multiplier Training System" (MTS), the subject of this assessment, has been integral part of the so called Vocational Education and Training System Advisory project (VETSA) at the MoE from 1999 to 2005. The MTS subject has been located at the centre of the quality improvement and teacher training policy of this common Lao-German project with a. MTS has been introduced under the supervision of the Ministry of Education (MoE) and implemented by the performed MTS-task force of the Vocational Education Development Centre (VEDC) in all public TVET centres and later on other private institutions (e.g. Lao Handicraft Association etc.) with big expectations. MTS has been financed explicitly by Lao German -TC over the last ten years. Until now there are more than 1.800 participants trained by this program. Over a period of nearly 10 years there have been no other training possibilities for TVET teachers and trainers in Lao PDR. On 9th April 2003 the closing ceremony of a series of MTS (Multiplier Training System) seminars took place at Vocational Information Point (VIP) at VEDC. This date can be considered as a starting point in the establishment and implementation a multiplier training system in Lao PDR.

In this time the Ministry of Education assigned the Vocational Education Development Center (VEDC) to be the responsible institution. In order to establish the system four main tasks have been realised:
1. Development of the appropriate concept for the Lao P.D.R
2. Institutionalisation of the MTS system at VEDC/VIP (forming a MTS Task Force),
3. Adaptation of the training programme to the Lao TVET-background and translation into the Lao language
4. Training of teachers and trainers as multipliers and serving training to teaching staff in a 3-level approach (hierarchy)
Now nine years later the Lao-German HRDME Programme commissioned a study to the Lao-German Development Consulting (LGDC) to check the relevance, effectiveness and significance of the MTS scheme for the further qualification of vocational teachers in Lao PDR.

**Objective and scope of work**
This study has the objective to take stock of the current status of the MTS and to develop recommendations for further improving the system, especially in regard to new challenges in the field of TVET. The analytical work is focused on following components:
- Efficiency and effectiveness of MTS-Program
- Quantity and quality of senior and junior multipliers
- Needs for further improvement
The objective of this study, is as follows: “Collect relevant data’s from teaching staff of TVET institutions that have been participated in MTS-programs and assess efficiency and impacts of this program for quality improvement of TVET in Lao PDR”

The services include administering survey to a sample of TVET teachers, junior and senior trainers and collecting institutional information from selected TVET, especially IVET schools.

The scope of work includes:
1) Conduct survey questionnaire to a sample of TVET teachers, MTS trainers who has been participate in MTS-courses.
2) Conduct survey questionnaire to a sample of management personnel who has been non-participate in MTS-courses of TVET institutions.
3) Analyze efficiency and effectiveness of existing MTS
4) Summarize results and condense findings.

The consultant has organized discussions with superior institutions and technical schools in the field in order to collected feedbacks whit the intention to reach at least between 300-400 TVET teachers from 12 TVET/ IVET institutions, meaning approximately 30-40 teachers/school (a representative sample should be determined based on number of teachers). Furthermore the consultant has contacted management staff of TVET/IVET institutions in order to discuss relevance of MTS for the improvement of teaching staff at their institutions in order to be able to deliver expectations and suggestions for further MTS training programs in TVET/IVET schools.

**Acknowledgments**
The LGDC consultant would like to express its thanks to GIZ and DTVET /MoES for the fruitful discussion about the subject. Furthermore the experts of LGDC would like to thank representatives as well as to all involved and contacted persons, which supported the mission and provided relevant information and recommendations.
2. Definition of the Project

2.1 Method and Fieldwork

In order to “Collect relevant data’s from teaching staff of TVET institutions that have been participated in MTS-programs and assess efficiency and impacts of this program for quality improvement of TVET in Lao PDR” a comprehensive study among practitioners in MTS has been conducted (for a detailed description of the task see Annex 3: Terms of Reference). The survey was realized in two main parts:

1. Interviews with TVET teachers, junior and senior multipliers of the MTS at TVET institutions, especially IVET schools have been conducted based on a questionnaire prepared for this purpose,
2. Structured interviews were held with senior management of TVET institutions, especially IVET schools.

In preparation to the actual fieldwork the questionnaire has been developed and the draft questionnaire was pre-tested in Vientiane and updated after the pre-test. The finally adopted questionnaire included:

- Personal Information
- Performance of MTS Trainers
- Performance of MTS task force
- Seminar and/or workshop conditions
- Quality of MTS program contents
- Understanding of MTS program contents
- Time frame for modules
- General recommendations

The survey team selected in cooperation with the Department of TVET at MoES target schools. In cooperation with DTVET directors or other management officers of the selected schools have been briefed about the objective and implementation of the survey.

The following schools have been selected for the study:
### Table 1: List of TVET institutions

<table>
<thead>
<tr>
<th>No.</th>
<th>Institutions</th>
<th>Contact persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IVET Xiengkhouang</td>
<td>Mr. Bounkhong</td>
</tr>
<tr>
<td>2</td>
<td>IVET Houaphan</td>
<td>Mr. Komkeo</td>
</tr>
<tr>
<td>3</td>
<td>IVET Luang Namtha</td>
<td>Mr. Singsavan</td>
</tr>
<tr>
<td>4</td>
<td>IVET Oudomxay</td>
<td>Mr. Sengkham</td>
</tr>
<tr>
<td>5</td>
<td>TC Luang Prabang</td>
<td>Mr. Thongchan</td>
</tr>
<tr>
<td>6</td>
<td>IVET Xayabouly</td>
<td>Mr. Somxay</td>
</tr>
<tr>
<td>7</td>
<td>IVET Attapeu</td>
<td>Mr. Phouvang</td>
</tr>
<tr>
<td>8</td>
<td>IVET Sekong</td>
<td>Mr. Bounthieng</td>
</tr>
<tr>
<td>9</td>
<td>IVET Salavan</td>
<td>Mr. Sidhideth</td>
</tr>
<tr>
<td>10</td>
<td>TC Pakpasack</td>
<td>Mr. Khammany</td>
</tr>
<tr>
<td>11</td>
<td>ATS Dongkhamxang</td>
<td>Mr. Bounma</td>
</tr>
<tr>
<td>12</td>
<td>TC Vientiane Province</td>
<td>Mr. Vilasath</td>
</tr>
</tbody>
</table>

Data Collection took place in September and October 2012. For data collection LGDC established 3 working groups: one for the North, one for central and one for the southern provinces.
The schedule for data collection looks as follows:

### Table 2: Schedule for data collection

<table>
<thead>
<tr>
<th>No.</th>
<th>Institutions</th>
<th>Date</th>
<th>No. of interviewees</th>
<th>No. of teachers</th>
<th>No. of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IVET Xiengkhouang</td>
<td>25.09.12</td>
<td>27</td>
<td>30</td>
<td>49</td>
</tr>
<tr>
<td>2</td>
<td>IVET Houaphan</td>
<td>27.09.12</td>
<td>37</td>
<td>56</td>
<td>63</td>
</tr>
<tr>
<td>3</td>
<td>IVET</td>
<td>01.10.12</td>
<td>39</td>
<td>57</td>
<td>78</td>
</tr>
</tbody>
</table>
2.2 Major Findings

2.2.1 General Data
A total of 441 persons in 12 IVET/TVET institutions in Vientiane Capital and 9 provinces, including both managers and teachers of TVET institutions have been interviewed. The majority of the interviewees are vocational teachers, a small number of interviewees are general subject teacher (e.g. math, physic) or TVET managers.
297 out of 441 interviewees stated to be male, 121 to be female, 23 did not answer this question. More than half of the interviewed persons belong to the age group 21-30 years, followed by 31-40 years.

As asked about their profession the vast majority of 94% stated to work as teacher. Interestingly the number of theory teachers (72%) is significantly higher than the number of practice teachers. As a constant number of 36 persons did not answer the questions about what they are teaching it can be concluded that they are not involved in actual teaching activities.
Asked about their teaching experience almost half of the interviewed persons stated to have practical experience in teaching for less than 5 years. The second largest group was for less than 10 year in teaching bringing the total of teachers with less than 10 years of teaching experience to more than two thirds of the sample.

2.2.2 Availability of multipliers

In the original setup of the MTS a total of 43 persons have been trained as Senior Multipliers i.e. passed successfully all three levels of training courses.
During the time since 2003 a great number of SMPs has been either moved to other positions or totally left service bringing the total number of available SMPs down to 12. In this regard it is of special importance that from originally six only one SMP is left at VEDC thereby reducing the Task Force to just one person and also jeopardizing the possibilities for further training of multipliers. SMPs have been found in some provinces but in different levels of activity. It was found that in Savannakhet one of the originally trained SMPs is still active and providing trainings on his own. In most other TVET institutions still having SMPs in their schools the multipliers are getting only involved in MTS at their respective schools if courses are organized by central level. On the other hand a number of provinces, above all the economically very important province of Champasak, do not have any SMPs left or never had any.

The majority of originally 104 certified Junior Multipliers is still in vocational training and could be mobilized for training activities or upgrade to SMP level.

2.2.3 Assessment of Competency of Multipliers

The interviewees were asked to rate the understanding and major skills of Senior and Junior Multipliers accordingly. One of the interesting findings in this regards is that the interviewees rate the understanding of MTS contents among Junior Multipliers higher as among Senior Multipliers. On the other end of the rating also more JMPs than SMPs perform poor which obviously has to be attributed to individual qualities of particular multipliers.
For Senior Multipliers the general knowledge as well as skills in main areas have been rated as shown in figure 6. In general high ratings of skills the illustration skills perform lowest.

The same rating for Junior Multipliers produces almost identical results with the highest number of poor performance in illustration skills as well.


2.2.4 Evaluation of MTS Taskforce

The next group of questions deals with the competencies of the MTS task force. This task force has been set up in 2002 as the managing body for all MTS activities in Lao PDR. The task force has originally been composed of four assigned staff of VEDC. In fact out of these four persons only one is still working at VEDC and involved in MTS. This person is trying to keep the system going, to manage, coordinate and document all activities. Therefore it seems to be very commendable that the rating for the responsibility of the task force is very positive showing more than 99% of very good and good ratings.

The individual fields of responsibility of the task force are also being rated high, showing a slightly less positive picture for planning and coordination between the MTS Task Force and TVET institutions than for advisory services in preparation and organisation of MTS trainings.
2.2.5 Changes requested by TVET institutions

When asked about what changes should occur at level of MTS Task Force to make the MTS fitting the needs of the TVET institution even better the interviewees clearly focused on two areas. More than 40% of the answers asked for extended time of training and one third of the answers requested an improved curriculum of the scheme. All other mentioned areas for change remained well below 10%.
2.2.6 Rating of training facilities of MTS

Regarding the training facilities the interviewees provided a very positive feedback with more than 90% of very good and good ratings in all four categories. The absolute zero response for very poor underlines the good level of training facilities.

![Figure 12: Training Facilities](image)

2.2.7 Evaluation of MTS Contents in general

In general the interviewees rated the content of MTS very positive with a total average of more than 90% very good and good ratings throughout all 19 modules in four main topics. The single most negative rating was given to Module IV/1 “Planning of training in workshops” with a poor rating of 11% (no very poor).
Figure 13: Quality of MTS content

As asked how they understood the content of the different modules, interviewees also provided a very positive picture. With an average of 93%, interviewed vocational teachers claimed to have understood the content of the different MTS modules very good or good. About 5% of the interviewees stated to have difficulties understanding the modules I/1 (pedagogics in vocational training) and II/3 (Identification of objectives and contents) each.

Figure 14: Understanding of MTS Content

As asked about the time allocated to each module, the average statement was also very positive (89% very good and good). The highest rates of dissatisfaction were expressed for time allocation to module IV/1 “Planning of training in workshop” with 15% followed by module IV/3 “Project Work” (13%) and module I/1 “Pedagogics in vocational training” (12%). In general the
number of *poor* ratings for time allocation concentrate on chapter IV where the interviewees stated that three out of five modules did get not enough time.

**Figure 15: Rating of Time Allocation for Modules**

In an open question participants have been asked what content they would like to have added to the existing MTS. The three most often proposed areas were teaching practice, the use of modern media and vocational training for target groups in rural areas.

**Figure 16: Proposed new topics for MTS**

2.3 Comparing MTS intentions with existing situations

The Multiplier Training System has been installed in Lao PDR in reaction to the shortcomings of general qualifications of vocational teachers and trainers. This was due to the fact that in the
late 1990-ies no systematic qualification system for vocational teachers existed. Further education of teachers was also done in an ad-hoc approach leaving especially pedagogical knowledge and skills of vocational teachers and trainers at a desolate level. The introduction of MTS was meant to gap the time until the introduction of a formal teacher training system, usually realised at universities and planned to be established in the Lao PDR at that time. MTS second objective was to become a recognized permanent system for further qualification of vocational teachers and trainers.

In 2000 an urgent need of pedagogic and didactic training for more than 1.000 vocational teachers had been identified. Since than a total of 1.850 vocational teachers and trainers participated at MTS training courses. During that time the system itself did not get any further development. No new multipliers have been trained or upgraded, no refreshment courses took place and also the content of training remained unchanged. Also the intended multiplier effect in the sense that trained junior multiplier would in their TVET institution setting actively spread their knowledge to other vocational teachers/trainers could at least not be confirmed by the current study. In general the approach is rather waiting for initiative from higher levels. So teacher/trainer upgrading did not find its way into individual school development plans. So far no ministerial decisions about the general status of MTS within the system of vocational teacher/trainer qualification and further qualification have been made leaving the organisation of MTS courses on an ad hoc basis. In general courses took only place when financial support from GIZ was available.

The system provided essential pedagogical and didactical knowledge to vocational teachers and trainers thereby contributing to a substantial general improvement of vocational training delivery. The survey confirms the high relevance of the system and the high level of satisfaction of the vocational trainers with the content and quality of training. However, in term of quantity since its beginning in 2003 the Multiplier Training System trained more than 100% of the original target group of about 1.000 vocational teachers/trainers. Having in mind that the total number of vocational teachers/trainers increased to 3.236 in 2011 and the vocational teacher training at diploma and higher levels just started to produce graduates the absolute number of vocational teachers/trainers in need for the training provided by MTS increased substantially. The MoES plans to further increase the number of teachers and trainers in vocational education and training by three-digit numbers yearly means that the need for contents as delivered by MTS will even further increase.

### 2.3.1 Concept and content

MTS concept offers not only the content of the vocational pedagogical subjects but also the methodical approach “how to deliver and how to transfer the content” of the subject to the applicants. Special intention has been given to the multiplier effect – which contents on the assumption that teachers and trainers trained by MTS became capable to act as “multipliers” within their work environment (schools, enterprises) and to hand on their knowledge to other

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less qualified and experienced trainers. That’s why MTS is well known as model of a 3-level training:

Figure 17: Three levels of MTS training

First: experienced teachers will be trained and prepared as senior multiplier (master trainer) which will train less experienced teachers as junior multipliers foreseen to assist SMP’s and to also to act independently as JMP, at the second step. After being trained and certified as multipliers they will train the teachers and trainers around the TVET institutions based on the content of the established MTS concept (see below). This model has been set in motion in 2003 and has shown its success in the first three to four years of its implementation. Currently they are still 4 pedagogical areas in use with a total of up to 19 modules: (see figure 18 below, list of modules see Annex):
The content covers all basic pedagogical subjects in a solid manner. Practical teaching exercises are completing the process of incorporating basic vocational teaching skills and knowledge by newcomers. But this is not a sufficient basis for teachers and trainers with teaching experiences and/or teachers teaching sophisticated technical subjects. To cope with the real and new teaching demands, whether at the classroom or at the training workshop, there must be more pedagogical and methodological content offered and differentiated training possibilities (multi-layer approach) are needed. Looking to the situation to promote professional careers of teachers and trainers it should be recommendable to take more attention to the institutional aspect by setting up officially recognised MTS courses and certificates by superior institutions. This important fact should be under critical review of the effectiveness and evidence of still on-going MTS activities financed by GIZ (please refer to point: 3.2.1).

On the other hand the MTS in its current shape does not cover all required topics yet. This was also confirmed by the survey when interviewees proposed a number of additional topics to be included into the scheme. During the past 12 years pedagogics and didactics themselves made further progress thereby requesting an overhaul of the existing system.

2.3.2 Relevance of MTS

There are a number of training programmes available on the international market, mostly developed in industrialised countries and focussed to deliver knowledge, normally quite appropriate to common teacher training. But the combination of content and methodology, organised in a comprehensive programme and broken down in easy manageable units is hard to find. The most valuable aspect of MTS is the relatively easy transferable pedagogical content.
(basic knowledge for beginners and also advanced levels) which makes pedagogically inexperienced people becoming better trainers and teachers with at relatively moderate cost.

The survey shows that MTS is still relevant to qualify teaching personal at all levels of TVET institutions. The demand is still increasing for non-graduated as well as graduated young teachers and trainers. One reason for that is that until now there is no further training program in place in Lao PDR. Furthermore recruitments of new teaching personal are increasing due to the fact of significant extensions of TVET in Laos PDR. New teachers and trainers often have no other choice to incorporate and to practices pedagogical knowledge than MTS in order to become able to teach and train as needed.

The survey shows furthermore that MTS courses mostly delivered by VEDC and financed through GIZ are used to be a vocational pedagogical course program to upgrade unqualified teaching staff rather than to follow up the multiplier approach and principles which aim to spread pedagogical knowledge to other colleagues – by using the capacities already trained with own resources from TVET schools or from superior institutions (e.g.: PES).

Nevertheless it has to be underlined that MTS in its original shape has been designed as an tool and bridging program with two major objectives:

- First, to improve quality of training at the existing TVET institutions by producing relatively quickly qualified teachers and trainers and to upgrade existing teaching personal needed in the growing and modernised public and private TVET sector;
- Second, to use empirical evidence from the MTS experience to establish step by step a systematic further training system for teaching personal nationwide, with highly qualified master trainers, officially recognised programs and with government approved certifications.

It is obvious that the currently used MTS is still not able to raise up to the objective to become a comprehensive and systemized concept of further training serving all kind or levels of vocational teaching and training demand. MTS became rather a stopgap or substitute for the still missing further training system, also in light of missing budgets to fill the gap of qualified teaching personal in Lao PDR.

The still missing decision regarding the establishment of an systematically functioning further training system for TVET teachers and trainers in Lao PDR is not depending on the introduction of the MTS system but rather a problem of the TVET management at central level in dealing with the demand and supply of the still growing TVET sector which depends on clear policies and budgets.

Lao-German TC should continue with its approach to support demand oriented TVET policy and strategy development combined with action oriented implementation activities, like IVET, DCT, MTS and teacher training development (TTD)

---

2 Final Report about MTS in Lao PDR: Frank Wenghöfer, IBC Berlin
2.4 Conclusions and recommendations

Based on the findings of the survey and additional general information about MTS the major conclusions are as follows:

1. The Multiplier Training system in its current shape is a useful and highly appropriate tool to provide essential knowledge about pedagogics and didactics in vocational education and training. It partially served its original objective of bridging the gap in providing pedagogical knowledge and skills to vocational teachers and trainers until graduates from teacher training at university become available but the system could not keep pace with the increasing demand.

2. The quality and skills of the Senior and Junior Multipliers in general are rated very positive indicating that the preparation of multipliers was adequate. However the survey revealed major problems connected to the availability especially of Senior Multipliers. Of originally 43 Senior Multipliers only 12 are still involved in vocational training. The current situation for Junior Multipliers seems to look much better.

3. Even the rating of responsibility and activities of the Task Force was very positive this can’t hide the fact that the Task Force in fact does not exist anymore. Out of originally four members only one person is still working for this job. This also means that the reduced Task Force is only able to fulfil administrative and organizational task and is not able to deal with the comprehensive development of the system, including formation of new multipliers and development of the MTS content.
4. The survey also revealed that training modules related to theoretical basics of pedagogics and practical workshop training are not as good understood as other modules of the system.
3. Marking needs and expectations of TVET-institutions

3.1 Quantitative needs development

A functioning vocational training system for skilled workers is the key for the future of Laos with its very young population in a phase of rapid modernisation. Therefore the Lao Government has integrated HRD with a special attention to TVET into the National Socio-Economic Development and Poverty Eradication Plan. For the implementation, in order to achieve these ambitious goals, the Ministry of Education and Sport has developed the TVET strategy and Master Plan, which is comprised of 3 mains areas:

- Expansion of TVET access,
- Improvement of TVET quality and competitiveness, and
- Improvement of TVET Management and Financing.

Regarding to expansion of TVET access following targets have been set:

- 60% of school leavers entering into TVET (50,000 per year),
- Extension of existing TVET-institutions and establishment of new TVET/IVET institutions,

In order to provide an acceptable teaching-learning condition the TVET sector will need:

- Up to 12,000 teachers, trainers and instructors in all vocational disciplines,
- more than 6,000 new TVET teachers have to be trained until 2020 (regarding to ESDF), and
- Up to 20,000 persons-time further training. (average 3 time per teacher)

The training will be in pedagogical subjects as well as technical or technological subjects. In the light of the above mentioned situation, MTS system, as it has been composed and implemented in the past as well as it is verified useful up to today can play a essential part to cover a big portion of the increasing teacher training demand. But the central question will be how the TVET administration will be organized and financially prepared to deliver to the different demands and expectations (compare annex 1: figure 18).

3.2 Qualitative needs development (including new contents)

It is widely acknowledged that the quality of teachers and trainers greatly influences the effectiveness of technical and vocational education and training (TVET) institutes in generating qualified and skilled workers. Furthermore the TVET reform has lead, in nearly all cases, to the redefinition, diversification and expansion of teacher functions. In modern TVET systems, teachers’ roles are no longer just to teach but also to counsel students, to guide them in their educational choices, to perform administrative and management tasks, to plan, conduct research, and cooperate with external partners (outside institutions, companies, public authorities, parents, etc.).

Due to the facts shown above it is strongly recommend to revise the existing MTS concept and to add new contents/modules. The following existing modules should be updated:

- Develop a program goal and objective,
- Determine needs and interests of students,
- Develop a lesson plan.
A number of additional topics and/or new modules should be added:
- Prepare teacher made instruction materials,
- Direct student laboratory experiences,
- Direct student in applying problem-solving techniques,
- Provide instruction for slower and more capable techniques (IVET),
- Assist students in developing self-discipline,
- Establish guidelines for cooperative vocational program (DCT),
- Manage the attendance, transfers and terminations of co-op students (DCT)
- Teaching practice,
- Curriculum analysis,
- Communication and ITC.

### 3.3 Incentives and other success factors to improve attitudes of teachers and trainers (MTS)

In the beginning of 2012 the GoL has introduced the new statute and incentive measures for teachers which include also TVET teachers. The main contents can be highlighted as follows:

- Significantly increasing of teachers salary (double to triple of the former amount),
- Reducing teacher-student-ratio,
- Reducing obligatory minimum teaching hour,
- Performance-based incentive measures,
- Improving teaching-learning environment.

It can be said that the Lao government has made a very good decision in order to try to improve the quality and competitiveness of Lao TVET. Now it will be the turn of TVET teachers to show their readiness for change and improve themselves and finally enhance the effectiveness and efficiency of their teaching work. In order to quarantine the success of this transition following activities should be done:

- Speed up the standard setting process and curriculum development,
- Creating new teacher education and training approach,
- Strengthening teacher training institutions,
- Exchanging experiences with other country,
- Developing and offering training and upgrading courses for teachers in all levels,
- Developing mechanism and instruments for a fairness evaluation and assessment of teachers.

Finally, the Ministry of Education and Sport and other responsible institutions should consistently work on the implementation of performance based incentives for teaching staff in order to increase interest in systematic further training, especially MTS, of teachers and trainers.
4. Final recommendations to further enhance and support MTS

4.1 General recommendations

Given the above described situation it is recommendable to further apply and develop MTS based on a flexible strategy by GIZ which uses advantages of the system and opens opportunities to further serve the needs of TVET schools in enhancing the performance of teachers and trainers (in the short run). This approach should also include a development program to extend the system in the mid and long run to finally transferring it into a well-functioning and sustainable further training system.

The following measures (milestones?) should be taken under consideration (in a broader sense as a road map) to further develop quality of teaching and learning in TVET-institutions.

In the short run:

- Further support MTS courses based on approved demands from TVET schools – with more and better qualified SMPs and JMs, recognized certificates, monitored by a competent MTS-task force and supervised by DTVET and GIZ,
- Identify demands and provide budgets (e.g. use of MTS for IVET teachers and trainers but also refer to differentiated contents as for example in non-formal training),
- Further enhance the “multiplier effect” of MTS courses by strengthening the methodological approach– (which builds on the assumption that teachers and trainers trained by MTS became capable to act as “multiplier”),
- Introduce new pedagogical subjects (increase from currently 4 to 9 pedagogical subjects) for more sophisticated teaching and managerial demands,
- Support short term training of In-company Trainers and Tutors (ICTT) in close cooperation with LNCCI and employers,
- Clarify financial implications of MTS and allocate budgets from the MoE and other training providers,

In a mid-term perspective:

- Further discuss contents and structures of the transition into a further training system and find solutions to finally transfer MTS into a officially recognized and financed by state-budget further training program for all teachers and trainers in public institutions (as well as for teaching personal financed by private users),
- Introduce “further training” as important subject into the new law of TVET as right and duty for all TVET teachers and trainers,
- Introduce training of In-company Trainers and Tutors (ICTT) to support the process of “dualisation” of vocational training (DCT),
- Support VEDC and FoE (DVTE) to qualify and/or extend capacities and facilities for further training and getting the mandate from the MoES as certified further training provider.
In the long run:
- Elaborating and implementing rules and regulations regarding the conditions of the respective Law on TVET,
- Establishing financial budgets for all kind of vocational further training measures,
- Institutionalisation of the system,

4.2 Special recommendations

4.2.1 Train key personal of MTS

The quality and reliability of MTS depends on competent teaching personal like MTS master trainers (SMP and JMP). As a precondition responsibility for MTS should be revised and probably put under direct supervision of the teacher training division in DVTET. Requests to deliver MTS courses from TVET schools, should not be agreed before a pool of at least 25 SMPs and about 50 JMPs are newly trained and certified.

Competent personal is as well urgently needed to ensure quality and relevance of MTS courses and to serve to the needs of TVET/IVET institutions in good quality and with the guarantee to ensure certain “multiplier impacts”.

In this sense we recommend:
- First: Review MTS trainer capacities and organize a screening process to select JMPs or – where available – vocational teachers at higher diploma and bachelor level able to be trained and work as SMP,
- Second: Revise the structure and content of the training program (as mentioned above),
- Third: Train new SMPs in a geographically balanced manner (North, South, Centre),
- Fourth: Re-install (re-vitalise) the MTS Task Force under direct responsibility of teacher training division in DTVET.

The whole package should be guided by at least one international expert. This can be organised and carried out under the supervision of LGDC in a well determined time frame.

4.2.2 Revise and extend contents (multi-layer approach) and establish a new shape of MTS in the frame of VTE in Laos

As described above the existing content structure of MTS shall be actualised and further developed (expanded) as described under point 2.2.

From the perspective of public and private TVET providers we suggest a general recapitulation of the structure and the target groups as well as a review of the content of the whole program by adding new pedagogical fields of action (FoA) to the already existing fields of action (FoA 1-4) as follows:

FoA 5: Elaboration and usage of learning materials and modern teaching aids,
FoA 6: Curricula assessment and planning of instruction (and actualization),
FoA 7: ICT (internet based teaching methods),
FoA 8: Learning assessments, tests and examination.

Based on the assumption that TVET will become more demand oriented and DCT will be broadly introduced as foreseen in collaboration with key companies and LNCCI, than it comes to more practice oriented teaching demand which should be delivered to all teachers and trainers. This should be as follows:

FoA 9: IVET-related formal and non-formal pedagogical knowledge as well as specific principles, rules and regulations,
FoA 10: Work process oriented dual training in companies or at the work place (DCT)
FoA 11: CBT related specific professional and organizational rules and regulations.

The new and more comprehensive content structure of MTS will in total offer 11 fields of action (FoA), which should be delivered in a three layer approach. Based on that we suggest to offer three levels of training or further training courses:

First Layer: for beginners – receiving MTS-Basic Certificate 1,
Second Layer: for advanced teachers and trainers, getting MTS- Advanced Certificate 2
Third Layer: for teachers and trainers involved in IVET, DCT or CBT measures, receiving MTS-Special Certificate 3.

In order to formulize MTS (with the orientation to establish and support a recognized further training system for TVET-personal) training courses and programs as well as different certificates for providers and users should be recognized by superior institutions (MoES, MLSW, LNCCI) and their institutional recognition should be guaranteed. Furthermore the recognition of credit points to support professional carriers and to engage envisaged further training measures and upgrading of teachers and trainers on academic and non-academic level must be clearly ensured by legal conditions and respective information.

4.2.3 Train In-company Trainers and Tutors (ICTT)

The assessment of ICTT–training program as part of MTS has not been part of this study. We voluntarily take this opportunity to refer to this important part of the comprehensive MTS system as it has been designed to serve mostly training providers from the private sector (compare figure 17).

Based on new training demands resulting from big investments and economic developments especially in the mining and energy sectors in Laos we highly recommend to pay more attention for the ICTT program. Furthermore we should take into account that the part of work process related training or DCT will be increase in the coming years. Therefore it should be important to provide special training for those kinds of trainers and tutors.

The Training is based on the following topics:

- **Module 1**: Introduction,
- **Module 2**: Identifying personal duties in training,
- **Module 3**: Preparing a simple training plan,
- **Module 4**: Introducing new entrants in the working environment,
• **Module 5:** Conducting instructions on work safety,
• **Module 6:** Conducting instructions on job tasks,
• **Module 7:** Conducting practical demonstration,
• **Module 8:** Environmental Protection,
• **Module 9:** Monitoring and evaluation skills and behaviour of trainees.

In-company trainers and tutors will be trained according to the real demand of companies at the work place or organized in close cooperation with the Lao National Chamber of Commerce and Industry (LNCCI).

### 4.2.4 Organization and formalization aspects MTS

MTS as well as all other further training measures needs to be established in accordance with requirements and in line with the development of the TVET system. Therefore the organising bodies should be supported to timely respond to emerging situations and to manage the demand carefully. The most important official body, here the Ministry of Education and Sports, should be responsible the whole policy and to provide respective special rules and regulations to support MTS as part of the further training scheme for TVET-teachers and trainers.

The assessment shows also that MTS has still not been officially recognised as part of the teacher training system under MoES and no assessment structures have been created by the involved institutions, neither by the VEDC and nor by the superior institution MoES. The MTS task force originally established at the VEDC with the mandate to steer and to monitor MTS in an appropriate manner disappeared over the years.

What kind of organisational issues should be reflected and implemented to further support MTS or other further training measures in a right manner? A couple of ideas:

- Getting or renew mandate from MoES (suggested to be under direct responsibility of teacher training division in DTVET),
- Ensuring institutional evidence and demand orientation (MoES decree/ task force/ steering and monitoring),
- Recognize and certify MTS by superior institutions like the DTVET/MoES
- Ensure availability of MTS-master trainers in appropriate quality and quantity (to train SMP and to follow up quality assurance),
- Actualise contents and programs (additional pedagogical areas and modules),
- Ensure appropriate quantity of qualified SMP and JMP nationwide and provide,
- Ensure financing of the system.

The formalisation of MTS and the development of a formal further training system for teachers and trainers is of great importance for the development of the whole TVET system. We recommend to continue the discussion with MoES to agree on development needs and conditions to finally fulfil the institutionalisation aspect of MTS, which leads to establish a systematic and officially recognized further training system for all teachers and trainers.
4.3 Quality assurance and management

Quality management and control of MTS-deliveries are part of the MTS Task Force in close cooperation with the principals (GIZ/DTVET). It should be strongly recommend to introduce and to follow up the internal quality management by the following instruments:

- Regularly using and interpreting assessments (using assessment sheets and reports) after each training course,
- Continuous and unheralded assessments of MTS courses,
- Organising discussions (workshops) with PES, directors of TVET schools, the task-force as well as SMPs and JMPs,
- Giving feedbacks and orientations and to impose conditions if necessary.

For the external quality control we suggest to refer to the existing quality manual of TVET, introduced by the quality assurance centre of MoES in 2010. We suggest to make use of the existing quality manual in close cooperation with the mentioned department.

4.4 Financing of further improvement and training of MTS

Financing is an integral part of the success and sustainable development of MTS. A brief calculation seems to be needed to understand that the upgrading of MTS to a higher level further training tool will be not a minor thing in terms to provide appropriate personal and financial resources.

A rough estimation shall give an initial idea of related costs:

1. **Training costs:**
   We emanate that the cost for one course with up to 25 participants will be around 50 million LAK (ca. 5.000 Euro) all included. Consequentially there are up to 100.000 Euro needed to train about 500 teachers and trainers (25 courses per year as a realistic number) which is a realistic number compared by the demand.

2. **Training of SMP/JMP:**
   The training of new SMP (up to 25) and JMP (up to 50) as mentioned above will be calculated with per person up to 10 million LAK (1.000 Euro/Participant) which up to 75.000 Euro. The cost for international expert is not included. Together with an international expert (2 expert-months) there are up to 125.000 Euro needed.

3. **Further expansion of contents:**
   The actualization of existing FoA will be calculated up to 2.000 € per field of action and elaboration of 6 new contents and materials is estimated to cost up to 10.000 € per new FoA.
   In total we estimate that up to 80.000 Euro should be needed to upgrade the whole MTS program from current 4 to 10 FoAs.

4. **Total cost:**
The raw estimation is around 300.000 Euro or 3 billion LAK!

**Ensuring ownership and sustainability**

Even as we have learned from the assessment that MoES can't provide enough budget for this kind of activities we opt for a strong participative and income oriented financial scheme. Furthermore it has to be underlined that not all depends from the budget provision alone. Other things have to be under consideration. As for example quality, effectiveness (multiplier impact) and result based monitoring.

In terms to ensure relevance, ownership and sustainability of MTS new commitments from the partner side should be evident (e.g. legally, organizationally and financially). The conditions for further supporting MTS by GIZ programs and projects should be newly discussed in the broader context of the establishment of Vocational Teacher Education System in Lao PDR with MoES / DTVET/ including VEDC and FoE-VTTD as two main partners of “Lao-German Teacher and Trainer Education Project” (TTEP). Major questions should be:

- Financing scheme / Income generation (e.g. In-company trainers training for big companies, MMG, Phubia Mining etc.)
- Support from the beneficiary institution like TVET schools (even small but voluntarily),
- Usage of output (Multiplier impact),
- Budget allocation (public expenditures) for further training of
- Allocation of other funds (sponsoring) for teachers and trainers upgrading.

In conclusion there is a strong need to clarify the organizational and financial scheme for MTS and to allocate appropriate budgets from the MoE. Other interested public and private providers (MoLSW, LNCCI etc.) so far they will be involved in vocational training, should be involved to support the participative approach of teaching staff development in Lao PDR.

The survey shows furthermore that all financed MTS activities without any recognition or financial and administrative support from the MoES will be not sustainable at the end of the day. In conclusion there is a strong need to clarify major concerns, already written down in the MoU between MPI, MoES and GIZ regarding the implementation of “Lao-German Teacher and Trainer Education Project” (TTEP) for the time period of 2012-2014. In this way we can see that the upcoming engagements and investments from Lao-German Technical Cooperation will becomes more effective and finally sustainable to support the ongoing Education Reform Process in Lao PDR in a appropriate manner.
Annex 1: Additional Employment Opportunities and Need for Trainers/Teachers

<table>
<thead>
<tr>
<th>TVET capacity</th>
<th>Additional Employment</th>
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<tbody>
<tr>
<td>50.000/year (38%)</td>
<td>130.000/year</td>
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<td>Source: TVET Master Plan</td>
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<tr>
<td>Agriculture = 21.110/year x 2 years</td>
<td>73% Agriculture = 94.900</td>
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<tr>
<td>By ratio 1:20 = 2.111 teachers are needed</td>
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<tr>
<td>Industry = 10.700/year x 2 years</td>
<td>10% Industry = 13.000</td>
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<tr>
<td>By ratio 1:10 = 2.140 teachers are needed</td>
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<tr>
<td>By ratio 1:5 = 4.280</td>
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<tr>
<td>Service = 18.190/year x 2 years</td>
<td>17% Service = 22.100</td>
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<tr>
<td>By ratio 1:20 = 1.819 teachers are needed</td>
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<td>7th SEDP (2011-2015)</td>
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Non-formal/informal/OJT capacity
57.000/year (44%) majority employment is in agriculture sector

Higher Education capacity
23.000/year (18%) NSEDPA
### Annex 2: Vocational Teacher Competency Profile/Performance Based Teacher Education

**Figure 21: Vocational Teacher Competency Profile (SEAMEO-VOCTEC)**

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<tr>
<td>31. Present Information with Chalkboard and Flipchart</td>
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<tr>
<td>7. Assist Students in Developing Self-Discipline</td>
<td>8. Organize the Vocational Laboratory</td>
<td>9. Manage the Vocational Laboratory</td>
<td>10. Combat Problems of Students Chemical Use</td>
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<tr>
<td>G. School-Community Relation (10 Units)</td>
<td>Community Relation Plan for Your Vocational Program</td>
<td>Promote Your Occupational Program</td>
<td>Promote Your Vocational Program</td>
<td>Promote Your Vocational Program</td>
<td>and Articles Concerning Your Vocational Program</td>
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<tr>
<td>7. Conduct an Open House</td>
<td>8. Work with Member of the Community</td>
<td>9. Work with State and Local Educators</td>
<td>10. Obtain Feedback about Your Vocational Program</td>
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<tr>
<td>M. Assisting Students in Improving Their Basic Skills (6 Units)</td>
<td>1. Assist Students in Achieving Basic Reading Skills</td>
<td>2. Assist Students in Developing Technical Reading Skills</td>
<td>3. Assist Students in Improving Their Writing Skills</td>
<td>4. Assist Students in Improving Their Oral Communication Skills</td>
<td>5. Assist Students in Improving Their Math. Skills</td>
</tr>
</tbody>
</table>
Annex 3: Terms of Reference

Terms of Reference for Lao-German Development Consortium

1.1 Project objective and target groups

The Lao-German HRDME Program/GIZ is conducting a comprehensive analysis that will provide relevant information about the MTS implementation in Lao PDR. The analytical work will focus on following components:

1) Efficiency and effectiveness of MTS-Program
2) Quantity and quality of senior and junior multipliers
3) Needs for further improvement

The objective for the field mission, in which this project of the GIZ Mission is included, is as follows:

“Collect relevant data’s from teaching staff of TVET institutions that have been participated in MTS-programs and assess efficiency and impacts of this program for quality improvement of TVET in Lao PDR”

The services include administering survey to a sample of TVET teachers, junior and senior trainers and collecting institutional information from selected TVET, especially IVET schools.

1.2 Scope of work

With regard to the above mentioned objectives four major outcomes will be delivered to the contractor GIZ:

1) Conduct survey questionnaire to a sample of TVET teachers, MTS trainers who has been participate in MTS-courses.

The consultant will undertake the following main activities:

A. Brief TVET Directors (and other TVET staff as necessary) on the purpose and value of the survey and their roles and responsibilities.
B. Collect contact data from sample TVET institutions as well as their teachers participated MTS program.
C. Organize a series of workshops/ interviews (1-2 days) at TVET institutions and inviting teachers, trainers and school managers complete the survey Questionnaire.
D. Data entry, screening and analysis regarding to the scope of this survey.
E. Compiling survey report

2) Conduct survey questionnaire to a sample of management personnel who has been non-participate in MTS-courses of TVET institutions.
The consultant will undertake the following main activities:

A. Translate English questionnaire into Lao
B. Collect information from selected TVET institutions according to the questionnaire. Consultant will visit TVET/IVET institutions and fill-out questionnaire based on information they obtained through staff interviews and institutional documents/materials.
C. Data entry, screening and analysis regarding to the scope of this survey.
D. Compiling survey report

3) Analyze efficiency and effectiveness of existing MTS

The consultant will undertake the following main activities:

A. Analyze efficiency and effectiveness based on the above mentioned surveys (course structure, content and organizational aspects)
B. Marking needs and expectations of TVET-institutions
C. Comparing MTS-program intentions with existing situations
D. Working out conclusions and recommendations

4) Summarize results and condense findings.

The consultant will undertake the following main activities:

A. Summarize the scope of this survey
B. Comparing requirements with existing delivery
C. Recommendations and proposals to update or to further develop MTS
D. Formulate conclusions and recommendations
E. Presenting and discussing findings
F. Drafting Final Report

The consultant will organize discussions with superior institutions and collecting feedbacks with the intention to

Targets

Target of the Survey (1): The consultant will aim to reach at least between 300-400 teachers from 12 TVET/IVET institutions, meaning approximately 30-40 teachers/school (a representative sample should be determined based on number of teachers). Target groups are TVET teachers and MTS trainers.

Target of survey (2): The consultant will contact management staff of TVET/IVET institutions in order to discuss relevance of MTS for the improvement of teaching staff at their institutions. Furthermore this survey will deliver expectations and suggestions for future further training programs in TVET/IVET schools.

Briefing superior and TVET/IVET institutions and ensuring transparency
The involvement of the Department of Technical and Vocational Education and Training (DTVET) of the Ministry of Education and the respective Provincial Education Departments (PES) will be indispensable. Furthermore a close cooperation with the MTS provider VEDC is needed to understand organizational and structural aspects of the MTS-program and the setting up of MTS-management. A formal letter of Technical and Vocational Education Department/ Ministry of Education and Sport (MoES) will be sent to the schools and VEDC informing them about the MTS-survey, purpose and time frame, their participation and commitment to support the mission successful.

**Organize workshop**

Based on the list of TVET/IVET Institutions for the survey the LGDC will closely work together with TVET Department and VEDC. The workshop will be held after the survey has been finished and respective first findings can be delivered by the consultants and discussed with the superior institutions and GIZ. (please compare 1.4: Tentative work plan)

**Compile data**

Data entry into the MS-Excel or SPSS software program will be done immediately after receiving of the completed questionnaire.
Annex 4: Questionnaire of MTS survey

Questionnaire for Evaluation of MTS

<table>
<thead>
<tr>
<th>Date / วันที่</th>
<th>Venue / สถานที่</th>
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<tbody>
<tr>
<td>To ensure an improvement on MTS we would like to have your personal opinion and assessment by answering the following questions...</td>
<td></td>
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</tbody>
</table>

A. ข้อมูลเกี่ยวกับบุคคล / Personal Information

ชื่อ นามสกุล / name and surname

อายุ / age .....................ปี / years ถ้าคุณเป็นครู / you are teacher? แน่ใจ / yes □ ไม่แน่ใจ / No □

ในกรณีที่คุณเป็นครู โปรดระบุรายละเอียดดังนี้ / in case you are teacher please specify:

- วิชาทั่วไป / general subjects □
- ทฤษฎีที่เกี่ยวข้องกับงาน / occupational related theory □
- ทักษะที่เกี่ยวข้องกับงาน / occupational related practice □

ประสบการณ์สอน / teaching experience ......ปี / years

สถานที่ / Institution

<table>
<thead>
<tr>
<th>Teaching performance of MTS Trainers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate your present opinion by marking in the 4 point scale below.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>+ +</th>
<th>+</th>
<th>-</th>
<th>- -</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ดีมาก / Very good</td>
<td>ดี / Good</td>
<td>ปานกลาง / Average</td>
<td>ไม่ดี / Poor</td>
</tr>
</tbody>
</table>
Teamwork for sustainable Technical and Vocational Education and Training

If you selected (3) and (4), please specify the reason(s)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>++</th>
<th>+</th>
<th>-</th>
<th>- -</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The SMP had good knowledge and practical understanding of the subject matters?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>The SMP was effective in communicating ideas and concepts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>The SMP was able to stimulate and maintain interest of the participants</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>The SMP used good illustrations, practical examples and case study to aid learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

C. metrical or qualitative task force / MTS Task Force

How do you assess the general responsibilities of task force group?

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>good</th>
<th>poor</th>
<th>very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. ການອາດລາເຄວ / How do you assess the quality of co-ordination and planning between Task Force and schools?  

ึกອາດ / Very good  □  ຊິ / good  □  ມີ / poor  □  ຝໝຍກາລາຍ / very poor □  

ໃນການອາດລາເຄວ / If your answer is poor /very poor, please specify the reason(s)...............................................................................................................................
..........................................................................................................................
...........................................................................
........................................................................
If your answer is poor /very poor, please specify the reason(s)

...........................................................................................................................
..........................................................................................................................
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2. อุปกรณ์และอุปกรณ์ใช้ในการจัดสื่อ / quality of facilities for visualisation (OHP, Pin boards etc...)

   ถิ่น.Quantity / Very good □   □/ good □   □/ อย่าง / poor □   □/ อย่างแย่ / very poor □

   ในที่ระดับ อย่า / อย่างมากจะมีการจัดเรียนเรียน / If your answer is poor /very poor, please specify the reason(s)

...........................................................................................................................
..........................................................................................................................
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.........................................................................

3. คุณสมบัติของนักเรียนและผู้สอน และภาพกล้องเทอมม / quality of preparation of handouts

   ถิ่น.Quantity / Very good □   □/ good □   □/ อย่าง / poor □   □/ อย่างแย่ / very poor □

   ในที่ระดับ อย่า / อย่างมากจะมีการจัดเรียนเรียน / If your answer is poor /very poor, please specify the reason(s)

...........................................................................................................................
..........................................................................................................................
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.........................................................................

4. กระบวนการจัดทำขั้นตอนในการจัดทำ และอื่น ๆ / preparations for coffee/tea break and other

   ถิ่น.Quantity / Very good □   □/ good □   □/ อย่าง / poor □   □/ อย่างแย่ / very poor □

   ในที่ระดับ อย่า / อย่างมากจะมีการจัดเรียนเรียน / If your answer is poor /very poor, please specify the reason(s)

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E. ที่ประชุมบันทึก / MTS - Program Folder

   ระบบสิทธิ์ของความคิดเห็นของอาจารย์ที่ได้สัมพันธ์ในที่ประชุมจะมีการประชุมในที่ประชุมบัน

   ถิ่น.Quantity / อย่างมากที่จะสัมพันธ์ในที่ประชุมชุดที่รวมความที่มีการประชุมอันใด / Please indicate your present opinion by marking in the 4 point scale below. For example, if you assess something as quite good, you should indicate this as follows:

   + + + - -
The evaluation criteria (3) and (4) also have specific reasons if you selected (3) and (4), please specify the reason(s).

1. How do you assess the quality of contents of individual modules as following?

<table>
<thead>
<tr>
<th>FoA</th>
<th>Module</th>
<th>++</th>
<th>+</th>
<th>-</th>
<th>-</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>M1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>M1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M5</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>M1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2</td>
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<td>M3</td>
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<tr>
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<td>M5</td>
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<tr>
<td></td>
<td>M6</td>
<td>1</td>
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<td>3</td>
<td>4</td>
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</tr>
<tr>
<td></td>
<td>M7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tr>
<tr>
<td>IV</td>
<td>M1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
2. How do you assess the level of understanding of the individual module for Teachers?

<table>
<thead>
<tr>
<th>FoA</th>
<th>numb / Module</th>
<th>++</th>
<th>+</th>
<th>-</th>
<th>-</th>
<th>หมายเหตุ / Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>M1  คำสำคัญการสอน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2  ความรู้การสอน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>M1  การเรียนรู้</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2  การสอน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tr>
<tr>
<td></td>
<td>M3  การประเมิน</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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</tr>
<tr>
<td></td>
<td>M4  การสื่อสาร</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M5  การอภิปราย</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>M1  การอธิบาย, การสอน และ การสอน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M2  การสอนวิทยานิพนธ์และตัวอย่างแสดงผลงาน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M3  การฝึกฝนและประเมิน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M4  การอธิบาย, การสอน และ การตัดสินใจ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M5  การประเมินการสอน</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M6  การตัดสินใจ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
3. How do you assess the fixed duration of time for the individual modules?

<table>
<thead>
<tr>
<th>FoA</th>
<th>Module</th>
<th>++</th>
<th>+</th>
<th>-</th>
<th>-</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>M1</td>
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<td>4</td>
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<td></td>
<td>M2</td>
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</tr>
<tr>
<td>II</td>
<td>M1</td>
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<tr>
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<td>M2</td>
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<td>M3</td>
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<td></td>
<td>M4</td>
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<td>4</td>
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</tr>
<tr>
<td></td>
<td>M5</td>
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<td>2</td>
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<td>4</td>
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</tr>
<tr>
<td>III</td>
<td>M1</td>
<td>1</td>
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</tr>
<tr>
<td></td>
<td>M2</td>
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<td>4</td>
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</tr>
<tr>
<td></td>
<td>M3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
### F. ການประเมินໂດຍວິຫານ/General Evaluation

1. ປະເພດທີ່ ຂອງທ່ານເດີມໃນ (ມິດຕິດ) ເທິແລກຂອງທາງແຫລ່ນຕໍ່ທີ່ນີ້ບໍ່?  
Do you propose to cut anything out of the MTS-program? If yes, what?

<table>
<thead>
<tr>
<th>M4</th>
<th>ນາງທັງໝາດການແບບນີ້ຈະການແບບມາຈັກປາກະນາປະເມນ</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5</td>
<td>ນາງໂຮງຮຽນການສະແດງ-ການແບບນາ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>M6</td>
<td>ນາງເຄົ້າການການແບບນາ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>M7</td>
<td>ນາງທີ່ສາດແລະເປົ່າການການແບບນາພາກທິ_estado</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. ໃນໂດຍລາຍງານນາງທັງໝາດເປົ່າການສະແດງນີ້ມີຄວາມດຽວງານຂອງທ່ານແຫລ່ນແລະຕໍ່ທີ່ນີ້ບໍ່?  
Does MTS-program fulfil your expectations? If yes, why, if no why not?

<table>
<thead>
<tr>
<th>IV M1</th>
<th>ນາງທັງໝາດການແບບເຮືອດານໃນໂດຍຄົນທີ່ອອກ</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td>ນາງໃຫ້ຕົ້ນການແບບນາຄໍາ 4 ການແບບນາ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>M3</td>
<td>ນາງໃຫ້ຕົ້ນການແບບນາຄໍາຕົ້ນການແບບນາ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>M4</td>
<td>ນາງໃຫ້ຕົ້ນການແບບນາຄໍາໃຫ້ການແບບນາ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>M5</td>
<td>ນາງທີ່ສາດແລະເປົ່າການການແບບນາພາກທິນານນານ</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
3. �能力 éléments d’Other(Other)

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G. ທ່ານຕັ້ງທ່ານຈະເຕັມສະໝັດຕັ້ງສຸດໃຍ້ຈະແມ່ນໄດ້ໃຫ້ ເພື່ອ ເພື່ອມືນ
What content and what kind of training assistance would you like to add to the existing
MTS-program?
1. ........................................................................................................................................
2. ........................................................................................................................................
3. ........................................................................................................................................
4. ........................................................................................................................................
5. ........................................................................................................................................

ຂໍ້ມູນໃຈ
Thank you