



## WORKSHOP REPORT

# Institutional Capacity Building Needs for Better Rural Infrastructure Development

7-8 April 2005

Institute of Technology of Cambodia  
Phnom Penh, Cambodia



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## EXECUTIVE SUMMARY

The Greater Mekong Subregion Academic and Research Network (GMSARN), an alliance of eleven top ranking educational institutions in the GMS, and AIT<sup>1</sup> Extension are undertaking a project consisting of a series of eight workshops being conducted over a one year period. The workshops are directly responding to short and medium term human resources development and capacity building needs in Cambodia, Laos, Myanmar and Vietnam (CLMV) in the areas of environmental management, information technology and infrastructure management. Additionally, the project aims at strengthening collaboration, networking and solidarity in the CLMV countries. The project has been supported by the GMSARN, AIT Extension and the ASEAN Foundation.

Under this initiative, the Institute of Technology of Cambodia (ITC), Phnom Penh hosted a two-day workshop on ***Institutional Capacity Building Needs for Better Rural Infrastructure Development*** on 7 and 8 April 2005.

The workshop was attended by approximately 70 participants, comprising presenters, senior students, academics, staff of ITC and client organisations for the graduates of infrastructure and engineering courses.

This document describes the presentations, discussions and outcomes of the workshop.

Ten presentations were provided by experts in infrastructure and human resource development issues which stimulated the workshop working groups to identify areas for expansion or improvement of academic service delivery, and suggested follow up initiatives.

The introduction and background to the workshop is provided in Section 1 of this document. The presentations are described in Section 2. Section 3 outlines the Working Group activities and Section 4 describes their outputs. Appendices include supporting documentation and the presentations.

The workshop highlighted the need for improved coordination between the ITC, Ministry of Education and the client organizations that employ the engineering and infrastructure graduates. Other stakeholders and agencies can also contribute substantially to improved capacity building and educational service delivery, including expanding and updating course modules to meet the continually changing sector needs.

The workshop was rated as very successful in the participants' post workshop evaluation.

This document has been compiled by Patricia Petts of Intech Cambodia with cooperation provided by the South East Asia Community Access Programme (SEACAP) supported by DFID.

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<sup>1</sup> AIT Asian Institute of Technology, Bangkok.

## 1.0 FORMAL OPENING OF WORKSHOP AND INTRODUCTIONS



Photograph from left to right: Ms. Men Nareth, Dr. Om Romny, Dr. Teresita C. del Rosario, H.E. Sous Kong, Mr. Ludovic Protin, Mr. Doekle Wielinga and Mr. Māk Ngoy.

**Ms. Men Nareth** Head of Department of Rural Engineering at ITC introduced:

**1.1 Dr. Teresita C. del Rosario**, GMSARN Secretary General, office of the secretariat A.I.T. who welcomed all delegates and participants. The AIT Extension facility for continuing education for capacity building was introduced (See Appendix 3).

**1.2 Keynote Speech** - Welcome address by, **Professor Ludovic Protin** Chef de Projet I.T.C., Advisor of Director of Institute of Technology of Cambodia for the workshop organized by GMSARN.

“Doctor Teresita Del Rosario General secretary of GMSARN,  
Distinguished Guests,  
Ladies and Gentlemen.

First I would like to apologize for the Director of ITC Mrs Sackona Phoeurng who is actually in France and cannot be among us to day.

Second, this is a great honour for me to have the opportunity to officially welcome all the participants of this important training workshop on **"the Institutional Capacity Building Needs for Better Rural Infrastructure"** that is now happening in the Institute of Technology of Cambodia under the cooperation with the (Greater Mekong Sub region Academic and Research Network) GMSARN and funded by the Asean Foundation.

ITC is a Cambodian Higher School Institution, which trains Engineers in French language for five years and which, also trains higher technicians for three years in French and Khmer language. All students also learn English and can study for Masters and PhD in Asean and English speaking countries' institutions.

ITC has received funds from France since 1993 and this bilateral cooperation has been replaced since last September by a multilateral cooperation.

ITC is now a Cambodian institution with Cambodian teachers and Cambodian administration. We can say now that ITC has a regional and international reputation of excellence.

GMSARN is a real network of Universities that wants to develop academic and research common programmes. We must remember that AIT has been a leader to develop this regional network GMSARN and I would like to thank Ms Doctor Teresita Del Rosario, who is in charge of this programme in AIT, for the important relations developed between the academic institutions of GMSARN and between the professors and students of these institutions. It is now necessary to work in networks if we want to progress. GMSARN increases the network created by AUN/SEED NET programs.

At ITC, we think that regional cooperation is very important and in the last two years, this regional cooperation has been increased with ASEAN institutions.

This workshop, where many representative persons of GMSARN Institutions are present, confirms this important objective to create links between academic people.

Now what about the field of this workshop? It's a very important subject for the development of towns and countries especially for Cambodia. Training and discussions on subjects like transport sector, water resources, modeling of urban drainage, infrastructure management, rural development and their associated human resources are so important for solutions to real actual problems of towns and countries.

ITC and GMSARN offer to us the opportunity for such training, discussion and sharing an experience. So I am sure you will develop very good work during these two days of meeting and I would also express my sincere thanks to speakers for spending their busy time to share ideas and experiences during this workshop

Lastly, I would like to welcome all of you and I would like to wish you to have also a pleasant stay in Phnom Penh.

Thank you again for coming to ITC.”

**1.3** Ms. Men Nareth then invited **H.E. Sous Kong** Secretary of State Ministry of Rural Development to formally open the Training Workshop;

“Excellencies, Lecturers, Ladies and Gentlemen,  
National and International Distinguished Guests.

Ph.D Teresita C. Del Rosario, the Secretary General of GMSARN and the ED of AIT.

I on behalf of the MRD and the Royal Government of



Cambodia would like to show my warmest welcome and heartfelt thanks to Excellencies, ladies, gentlemen, distinguished guests, orators and all those who are present in the opening session of the workshop on “Institutional Capacity Building Needs for Better Rural Infrastructure Development.

In this occasion, I would like to express my sincere thank you to the ASEAN Foundation who have made this workshop possible through financial support with the cooperation from the AIT and ITC. Let me take this opportunity to give my special thanks to PH.D Teresita C. Del Rosario, the representative from GMSARN and the ED of AIT and all her colleagues who have been working very hard to make this workshop possible in Cambodia. My thanks also go to all the participants and colleagues for spending your valuable time to participate and share your ideas in this workshop. PH.D Teresita C. Del Rosario will also give presentations.

The great presence of all the distinguished guests, orators, lecturers and students in this workshop show the strong support and attention in participation in this human resource development in all institutions, as at the moment, the government pays more attention in restoring/promoting the development of construction and infrastructure in the rural areas and in the remote areas to meet the needs/requirements of the people of Cambodia.

Excellencies, Ladies and Gentlemen,

This workshop aims to build capacity among all the participants on research and understanding on the existing activities in rural development throughout the country. This workshop is also a very significant occasion to strengthen the cooperation and relationship between lecturers and government officials from different institutions. I hope all the participants will learn a lot of new experiences, skills and techniques from different international organisations and national organisations and institutions out of this meaningful two-day workshop and they will all become more skilful and capable in social development.

Finally, I would like to appreciate the presence of Excellencies, Lecturers, Ladies and Gentlemen for sparing your valuable time from your respective work to participate and to share your experience and opinions in this workshop. I would like to wish all of you the four Buddha blessings: Long Life, Happiness, Good Health and Prosperity.

I sincerely wish all of you a fruitful and meaningful workshop.

Thank you.”

**Ms. Men Nareth** thanked H.E. Sous Kong Secretary of State Ministry of Rural Development.

## 2.0 PRESENTATIONS

**Ms. Men Nareth** Head of Department of Rural Engineering introduced and welcomed the presenters.



**2.1 Dr. Teresita C. del Rosario**, GMSARN Secretary General, Office of the secretariat A.I.T.

Teresita then presented an overview on **GMSARN – ASEAN Foundation**. The workshop background and objectives, the process and expected outcomes were also presented.

See Appendix 3 for the PowerPoint presentation.



**2.2 Mr Andreas Beusch** of Intech Beusch & Co. Switzerland, addressed and thanked all those present. Andreas presented **“Human Resource Development Issues in the Transport Sector.”**

See Appendix 3 for the PowerPoint presentation.



**2.3 Mr. Thach Sovanna** of the Ministry of Water Resources and Meteorology presented **“Training and Human Resource Development on Water Resources Management.”**

See Appendix 3 for the PowerPoint presentation.



**2.4 Mr Robert Petts** Director of Intech Cambodia presented **“Transport Knowledge sharing initiatives for ASEAN Engineers - Getting research & knowledge into policy and practice.”**

See Appendix 3 for the PowerPoint presentation.



**2.5 Mr. Teav Ratanak** (Civil Engineer & Master in Development Management) of the Bureau of Urban Affairs, Municipality of Phnom Penh presented **“Modelling of Urban Drainage & Sewerage Networks Improvement.”**

See Appendix 3 for the PowerPoint presentation.



**2.6 Mr Oung Ponnaka** GTZ Infrastructure Advisor for The Community Based Rural Development Project (CBRDP) in Kampong Thom and Kampot presented **“Involvement of a Local Technical Committee in Infrastructure Management.”**

See Appendix 3 for the PowerPoint presentation.



**2.7 Mr Leonardo Romeo**, Senior Technical Advisor, United Nations Capital Development Fund (UNCDF) presented **“Local Government Initiative: Pro-Poor Infrastructure & Service Delivery in Rural Areas Decentralization Reforms and Commune-Level Services Delivery in Cambodia.”**

See Appendix 3 for the PowerPoint presentation.



**Questions to Mr Leonardo Romeo**, Senior Technical Advisor, United Nations Capital Development Fund (UNCDF).

**Question: Mr. Va Synarong** International Labour Organization

“If we compare with the commune fund, one commune gets around US\$8,000. How to obtain 32% of the commune’s priorities?”

**Answer** The commune fund will have overall US\$8,000 000, or about US\$ 8,000 per commune. That money is nothing to do with the 32% figure. When the commune prepares its own plans, they then meet with the Provincial centres. They try to sell all their projects for approval. Only 32% of responses during the workshops were accepted for implementation.

**Question: Mr. Teav Ratanak** (Civil Engineer & Master in Development Management) of the Bureau of Urban Affairs, Municipality of Phnom Penh. “Based on experiences, you mentioned bottom-up planning is successfully implemented in some cases of provincial towns in Thailand in terms of decentralisation. How to clarify bottom-up planning and top-down approach in implementing financial resource allocation?”

**Answer:** “Based on Cambodian experiences some argued that top-down approach is used rather than bottom-up planning, because it has commitment from the government and policy

decision makers concerned. However, some argued both approaches demanded good governance and transparent implementation.”

**Question:** “Are the contract arrangements cost-effective?”

**Answer:** “All this infrastructure works is implemented through contracts. Costs of contracts are compared. Management costs are considered, taking into account lower management costs in the communes. There is a suspicion these contracts cost less, because in order to win the contract, the bidders make offers assuming that they can cut corners. They presume that there will not be strong supervision, and the contractors take that into account. Nobody really checks. I suggest we need to strengthen agents at Provincial Level. TSS act as their engineers for design, contract award and supervision. Collusion has been noticed between TSS and contractors.”

**Question: Oung Ponnaka** GTZ Infrastructure Advisor for The Community Based Rural Development Project (CBRDP) in Kampong Thom and Kampot

“At the moment, we know that each commune has about US\$8,000 available. In the future, there will be increased funds available through the commune councils. However the technical staff are still not yet qualified. What do you think about improvement in techniques and better supervision?”

**Answer:** I rather favour private consulting services; people working in the countryside who would provide the consulting services to replace the TSS. The communes should be able to pay for the consulting services that they would get from the private sector. There is no choice at the moment, whether services are good or bad. There is no way of protesting. There should be a change to demand driven provision of these services. Where communes have a choice, young engineering or small consulting firms can be used.

**Question. Mr Heng Kackada** Director Intech Cambodia:

“Your presentation compares the efficiency of the contract work through the commune council, that are generally 6% - 29% cheaper than the standard MRD. Are these comparisons including the management costs, i.e. secretariat who support the commune council?”

**Answer:**

“In my view we have to go beyond the role of the authority which plans and finances. The essence of planning is the allocating of staff resources. When the commune goes to the workshop it is almost like a wish list. They should have done their own planning and then know which resources to allocate.”

The Presenter then showed a matrix for suggested Institutional Arrangements for local Public Services such as Domestic Water Supply (See Appendices).

**2.8 Mr Heng Kackada** Director Intech Cambodia presented “**Appropriate Engineering Design and Appraisal of Rural Road Investment.**”

See Appendix 3 for the PowerPoint presentation.



**2.9 Mr Julian Abrams** Program Adviser to Seila Program/UNDP presented “**Tools and Systems for Rural Infrastructure Development and Management.**”



See Appendix 3 for the PowerPoint presentation.

**Questions to Julian Abrams**

**Question 1. from Dr Om Romney**, Deputy Director Institute of Technology of Cambodia.

“Regarding the long term responsibilities of the roads, in the countryside, MRD & MPWT are separate Ministries, how will control be allocated with problems of decentralisation, problems of human resource development, problems of people being under-educated?”

**1. Answer:** “Seila does not build roads directly. Seila is a Government programme to mobilise resources and technical assistance; to help government to implement decentralisation.

There is not transfer as Commune funds belong to the Commune. Seila is scheduled to finish at end of 2005. Commune funds will not end then, nor will the councils. Reference has been made to a lot of new roads being built; this is not strictly true. In most cases the projects are rehabilitation of existing roads being used now by oxcarts etc. With respect to commune councils addressing the old maintenance problem; most of the money is going into capital expenditures, it is not going into routine maintenance. This must be changed; the bulk of spending over future years should be allocated with less money on capital projects and more money to be spent on systematic maintenance. This will ultimately be to a point at which no money or little will go to capital, but all to go on maintenance. If all the money went into maintenance tasks, then approx US\$ 8,million per year for commune councils would need to be provided for rural road network maintenance.

There is clearly a major problem with the large infrastructure network. Just to manage infrastructure the commune council has only 6 or 7 people of limited education. They are struggling. There is a concentration on building capacity through a training programme organised by the Ministry of Interior. It helps commune councillors to provide some basic capacity. Maybe they went to school for only few years. Just taking them to a training programme for 3 days will have limited impact. Maybe they will learn only 40% of needs; it is necessary to repeat training again. Clearly that human resource capacity building takes some time. We have to develop systems to match the limited capacity of existing resources.”

**Question 2: Mr. Va Synarong**, International Labour Organization.

“Do you think that your project will plan to support the rural road maintenance system?”

**Answer:** “We will not be able to fund all of the estimated network of 28,000 km of rural roads. 4-6,000km have been rehabilitated already with support by MRD, ILO, ADB. Beyond that WFP oxcart tracks have never been properly developed. We expect ultimately that commune councils will be responsible, through a district level system and the provincial department. Other stakeholders may assist using e.g. IRAP. Then roads will have an inventory to identify and designate them to each commune council. We will need to work with MRD to develop such an inventory.”

**Question 3: Ham Kim Kong**, DES/RUPP

“What is your role/responsibility which influences/changes the programme that you mentioned (in the presentation) in order to achieve improvements?”

**Answer:** “I think that in Seila the decentralised programme has been a great success; a great deal has been achieved. In terms of institution building, 1260 commune councils have been assisted. Do not underestimate this achievement. Other countries can learn from this model. Seila is fundamentally a success. We talk about problems openly. Yes there is corruption, but there is corruption in every activity in other programmes. Talking about it is the first step to finding the solution. The recent workshop was not about the continuation of SEILA, but about a continuing reform programme; a government reform programme, and the ILO project etc to continue.”

**Question 4: Poev Vathana**, 4<sup>th</sup> year student in Civil Engineering

“Lack of human resources is still a problem of rural road project implementation. So what are the approaches at the present time to prevent engineers or contractors from abusing the project?”

**4. Answer:** SEILA uses clear designs. Supervision will determine who was responsible for taking any wrong decision. The Commune is responsible for the work, not the engineer. But using the specifications anyone can see with his/her own eyes if they pay for substandard works. There should be transparency and clarity. Persons should be held to account if they took the wrong decision.

**2.10 Dr. Om Romny**, Deputy Director, Institute of Technology of Cambodia, presented:

**“Higher Education, Engineering Education in Cambodia, Institute of Technology of Cambodia.”**

See Appendix 3 for the PowerPoint presentation.



### 3.0 WORK GROUP DISCUSSIONS

After the presentations and questions requesting further information and clarification by the participants, the workshop programme proceeded to working group activities. A work group discussion checklist was issued to the four groups to stimulate, facilitate and guide the group's consideration of particular issues relevant to the workshop focus.

#### WORK GROUPS

1. Civil Engineering students
2. Rural Infrastructure students
3. ITC staff/lecturers
4. Client organisations (for graduates)

Work Group exercises:

#### QUESTION 1:

Students: From the workshop presentations and your experience do you feel that your course equips you with the necessary knowledge and skills for your professional career?

Clients and ITC staff: From the workshop presentations and your experience do you feel that the ITC courses equips the students with the necessary knowledge and skills for their professional careers?

#### POSSIBLE COURSE TOPICS FOR CONSIDERATION

- a. Information Technology skills, computer skills, internet and knowledge "harvesting"
- b. GIS and mapping
- c. Planning infrastructure
- d. Design of infrastructure in a resource constrained environment
- e. Standards and specifications relevant to your national environment
- f. Costing
- g. Investment appraisal (e.g. cost benefit analysis)
- h. Construction techniques
- i. Local resource based methods (use of local labour, materials etc.)
- j. Construction management, including roles and responsibilities of each party
- k. Contract documentation, conditions of contract etc.
- l. Testing and Quality Control
- m. Maintenance of assets
- n. Community participation in infrastructure construction and maintenance
- o. Social issues
- p. Environmental assessment
- q. Funding of infrastructure and maintenance
- r. Report writing and documentation preparation
- s. Administration and business practices

Are there any other topics you think should be included? What?

#### QUESTION 2:

- a. What needs to be done to improve the situation?
- b. Who should initiate or "champion" this?
- c. Who should implement the proposals?
- d. How will it be paid for?

The photographs following indicate the enthusiasm, serious debate, hard work and deep deliberations of the topics to be considered by the Work Groups:



**Dr. Teresita C. del Rosario**, GMSARN Secretary General, Office of the secretariat A.I.T Addressed the workshop and directed the 4 No. **WORK GROUPS** to convene separately and to be guided by a group leader.

The groups were asked to consult the Work Group Discussion Checklist (Section 3) and address firstly question 1. They were asked from the list of possible course topics (a – s) to then **prioritise 5 No. only** topics. The Groups were also asked to address Question 2., which they should then discuss, debate, record and deliver for presentation to the whole assembled workshop.

#### 4.0 PRESENTATIONS FROM WORK SHOP GROUP LEADERS

##### 4.1 RURAL ENGINEERING STUDENTS

**QUESTION 1.** Rural Engineering students

**From the workshop presentations and your experience do you feel that your course equips you with the necessary knowledge and skills for your professional career?**

Presented by Miss DOK Atitkagna

Miss Atitkagna thanked all those present the VIPS and distinguished guests. She then introduced herself.

“Yes of course, but it is not enough. We need more; some topics are to be proposed for the programme.”

The five topics chosen for presentation (see Appendix 3 for their PowerPoint presentation) were:

**c. Planning Infrastructure.**

“As we are engineers we need to plan our projects; how can we put our projects into works?”

**d. Design of infrastructure in a resource constrained environment**

“After the planning process we need to design, because our country is still in developing phase and we have limited money. We need to know how to use locally made products to ensure success.”

**e. Standards and specifications relevant to your national environment**

“We do learn about international standards, however we also need to know about our national standards e.g. we even learn about snow conditions, which are not relevant to Cambodia. We therefore need to consider and sum up our own conditions.”

**f. Costing .**

“If we have a plan, how can we put it into operation and to estimate costs? It is essential for the economic assessment. We cannot be successful in our careers without this knowledge.”

**I. Testing and Quality Control**

“If we design and cost projects, do we really know/understand our plan fully? Will the contractor do what we want them to do? We must have ability to assess and test quality.”



**QUESTION 2:**

**a. What needs to be done to improve the situation?**

"We propose that our 5 choices are submitted to the Council of I.T.C. If this is not possible, then contact the line ministries, NGOs, and other institutions. If possible give a short course or workshop on the topics."

**b. Who should initiate or "champion" this?**

"ITC because we are ITC students, we should propose this to ITC."

**c. Who should implement the proposals?**

"ITC because ITC is the controller of all students, also the Ministry of Education."

**d. How will it be paid for?**

"The important persons to pay for this are the Government + ITC also International donors (WB, ADB, IMF, UNDP and others)."

**Questions were asked of the Rural Engineering Students:**

Question from Dr Om Romney, Deputy Director Institute of Technology of Cambodia commented, concerning part of Question 2 "who should implement the proposals? the group's suggestion was ITC because ITC is the controller of all students and also the Ministry of Education. However the ITC graduates may be employed as private sector staff and will no longer be an ITC student. Therefore what should be done, how to get your proposal processed?"

Miss Atitkagna answered:

"I would suggest that even they should process the proposals through ITC and Ministry of Education."

Question from the floor:

"Regarding the 5 topics prioritised by yourselves, do you want ITC to conduct training courses for yourselves or the next generation of students?"

Miss Atitkagna replied:

"These topics should be on the curriculum for us and the future students. The topics are significant for future job performance, we will become more capable in performing our work."

## 4.2 CIVIL ENGINEERING STUDENTS

**QUESTION 1.** Civil Engineering students

**From the workshop presentations and your experience do you feel that your course equips you with the necessary knowledge and skills for your professional career?**

Presented by Poev Vathana.

"Thanks to all and good afternoon, before I introduce myself, I am a 4th year student here at ITC. My name is Poev Vathana. According to the workshop presentation and our experience, we feel that our present courses do generally provide us necessary knowledge and skills for our professional career. However, there's still lack of some technical courses in our college programs. That's why we require some additional courses in our schedule."



The five topics chosen for presentation were (see Appendix 3 for their PowerPoint presentation) as follows:

**j. Construction management including roles and responsibilities of each party.**

“The group emphasised that the students realised it was very important to understand fully, time and management costing. For students it is very important to appreciate time management and cost effectiveness.”

**c. Planning Infrastructure.**

“The group confirmed the need to provide knowledge on how to establish building plans with regard to the public services.”

**s. Administration and business practice.**

“The group was curious to know about running construction companies themselves, they realized the need for greater knowledge on business practices.”

**m. Maintenance of Assets.**

“The group identified that maintenance was an important component of the construction considerations, and that the cost implications should be considered. When we construct, we need follow up maintenance to be arranged to ensure success of the project.”

**g. Investment appraisal.**

“The group reported that before they actually implemented a project that they needed to analyse the investment requirements, to prioritise the project and to analyse the cost benefit before final selection and approval of the project.”

**QUESTION 2:**

**a). What needs to be done to improve the situation?**

- Strengthening cooperation with donors
- Building capacity of human resources: scholarship for both staff and students, exchange programs, short additional courses, workshops about experiences of local and regional expertise.
- Documentations

**b) Who should initiate or “champion” this?**

- ITC and other stakeholders with cooperation of other NGOs.

**c). Who should implement the proposals?**

- ITC and partners

**d) How will it be paid for?**

“As described above in answer (a), including training and seminars. Suggest approaching the Asean Foundation.”

Finally Poev Vathana and the civil engineering students said “Thank you for your attention!” and wished all a “Happy Khmer New Year”.

Questions were asked of the Civil Engineering Students

**Question 1.** from Dr. Teresita C. del Rosario asked – “I noticed in your list significant differences compared to the Rural Engineering Students. Whereas the first group selected 4 different issues e.g. specification requirements concerning the environment, your group focused their requirements in the field of business. Are you therefore being trained in civil engineering to look at this as a precursor to a business and the rural students as development engineers being more concerned about the course content?”

Poev Vathana **Answered** for the Civil Engineering group:

“When we are referring to business, economics are important and will help our country and these issues are related to its development.”

Dr Romney Om, Deputy Director Institute of Technology of Cambodia added, “I will explain about the differences between the two courses. Firstly regarding methodology, some subjects are very common, e.g. the building of roads, bridges, irrigation etc. however the Civil Engineering course covers costing, geology and water engineering. Some topics are very close, however other topics are course specific.”

**Question 2.** from Mr Heng Kackada asked, “If the group could choose other topics (other than the 10 considered) within their course, what would they choose?”

Poev Vathana **answered** for the group, “Social issues and environmental assets were not finally included. When we started work we discussed these other 2 topics. Social issues and environmental assets were later left out. In our careers we will need to address these 2 topics.”

### 4.3 ITC STAFF/LECTURERS

#### **QUESTION 1. ITC STAFF:**

**From the workshop presentations and your experience do you feel that the ITC courses equips the students with the necessary knowledge and skills for their professional careers?**



Ms. MEN Nareth presented the group discussion results. The six topics chosen for presentation were (see Appendix 3) as follows:

“Both Rural Eng. Dept. and Civil Eng. Dept. already have courses, which include components of the selected topics, however some further development is desirable and there are some comments to be made:

**a. IT Skills**

**b. GIS and mapping**

“Available for students within the Rural Engineering Department and are becoming more and more popular amongst the students themselves. Students are in high demand by external sectors, who more and more demand this expertise.”

**e. Standards and specifications** relevant to our national environment

“We do have this topic available in the Rural Engineering Department, however we need more aid/ workshops by GMSARN, if they have studies and specifications for rural and civil engineering students.”

**h. Construction techniques**

**i. Local resource based methods (local labour, materials ...)**

“This course is available with cooperation with both AIT the ILO IRAP component, MRD and INTECH Cambodia are also involved and we appreciate this.”

**l. Testing and Quality Control**

“This is not presented as a main subject but is included within other topic courses. However if we had a specific course this would be welcomed.”

**p. Environmental assessment**

“See above for the same answer, it would be good to have a specific course.”

“These skills are applicable all over the world; these skills are crucial for students even in their first year. They need to prepare their thesis from the lectures; they therefore need to know these skills.”

#### **QUESTION 2:**

**a) What needs to be done to improve the situation?**

“Ask for a strong cooperation and relationship from all line ministries and NGOs so that we are well aware of the job market demand in which ITC itself will work hard to supply the demand;

All line ministries and NGOs help disseminate all existing activities of ITC;

All line ministries and NGOs to offer short training courses or workshops to both ITC students and staff/lecturers.”

**b) Who should initiate or “champion” this?**

“Both the government, NGOs and stakeholders. We are the implementers therefore direction comes from the top.”

**c). Who should implement the proposals?**

“ITC can take the lead in writing the proposals;

Strengthen the qualities of students.”

**d) How will it be paid for?**

“Upon the project proposal and planning.

As you may know, ITC does not have a budget for these proposals.”

**Finally the ITC staff/lecturers group presented a Conclusion:**

Required actions:-

- Sponsors for lecturer training,
- More workshops at ITC,
- Upgrade equipment for the laboratories in ITC,
- Exchange programme,
- Expand collaboration links with national/international institutions as well as with key ministries, NGOs and stakeholders, etc.,
- Develop Perspectives: future needs and goals.

“If GMSARN has 1 or 2 week courses we would be grateful for that.”

**Question from the floor:** “this is my response to Question 1.”

“The courses you mentioned are available, however if you can also include contract documentation and conditions, these are very significant for both rural and civil engineering experts. We (clients) have to hire experts and spend too much on this. It would be great if the students learned these skills. We would then have no need to hire in staff just to write these contracts.”

**Answer:** “These topics already exist but they are a part of other courses.”

**Mr Heng Kackada** then asked a Question, “Should it not be Cambodia itself which conducts these courses? And consultations with the MRD as to what requirements are needed for future employees? Refer to Mr Robert Petts Intech Cambodia presentation with regards to some of those requirements.”

**Answer from Ms. MEN Nareth:**

“Somebody already mentioned this, we do have collaboration with the line ministries. We have many students who have these skills and want to share their knowledge, but due to financial constraints we are not able to organise this workshop in order to share these skills.”

**A response was received from Mr Heng Kackada.**

“The core problem is with demand and supply. ITC have plenty of cooperation with Asian and other international organisations and institutions, however more cooperation is needed with our own Ministries. ITC should have a strategy to approach these government institutions and NGOs.”

**Ms. MEN Nareth then responded:**

“Normally we have conducted an annual exhibition held during May to show activities from each of the departments. This is an opportunity for recruitment and when comments can be made and to show the public about our activities.”

**Another comment** was received from the floor:

“In relation to rural development standards and specifications, guidelines do not exist, they are not standardised. If the government wants us to provide these, we are able to do this with time and a budget confirmed.”

**Another comment from the floor was received from Lecturer Pen Kemora:**

“Regarding lack of local standards being incorporated within ITC, there is also lack of standards with regard to water engineering.”

#### 4.4 CLIENT ORGANISATIONS (FOR GRADUATES)

##### QUESTION 1. CLIENTS –

**From the workshop presentations and your experience do you feel that the ITC courses equip the students with the necessary knowledge and skills for their professional careers?**

Presented by **Mr TEAV Rattak (MPP)** who commented:

“the more knowledge you gain the better you will be; we are in a competitive climate. You will need to gain an advantage in your organisation”. Mr TEAV Rattak commented that he was fortunate to have a lot of experience both in social and technical aspects. He also presented the case for knowledge sharing.



The five topics chosen for presentation were (see Appendix 3) as follows:

##### **b. GIS and Mapping**

- Accurate and Speedy Works
- Position and Specific Location
- Data Based Information
- Easy to control and Update
- Global networks communication

Mr TEAV Rattak commented that in many countries for both urban for rural development the use of GIS is common. Use GIS specification by satellite that is easy to control and update global networks, communication, and IT skills

##### **h. Construction Techniques**

- Appropriate Methods and Technology
- Available Local Techniques

“We are still not achieving high standards compared to neighbouring countries in the teaching of research and development. There is a need to apply locally appropriate techniques.”

##### **i. Local Resources Based Methods**

- Promote local products
- Reduce cost
- Increase use of low cost manual workforces
- Sustainable working environment

“Sometimes the imports are not applicable in our country. E.g. a kerb stone using sophisticated materials. We are a relatively poor country we need to try to avoid constructing using imported materials. We need to research and produce our own local products. However, if we have local products we must use our local resources. It is a fact that most products are imported.”

#### **j. Construction Management**

- Organization structures
- Human resource management
- Strategic planning
- Total quality control (TQC)
- Consulting services
- Evaluation and assessment

“Sometimes technical skills are of prime importance, however, communication skills are also very important. These should be inserted in the programmes. Where is our evaluation of the projects carried out? We need to appreciate that what we learn in the school may be different from reality in the workplace.”

#### **n. Community Participation in Infrastructure Construction and Maintenance**

- Stakeholders
- Local beneficiaries in decision-making
- Partnerships
- Participation of beneficiaries in Operations and Maintenance
- Governmental body-facilitator

“You may be a manager and social issues are important, however you have to compromise and adapt to the societies needs. Projects can fail through lack of community participation. We need to have transparent participation in projects.”

#### **QUESTION 2:**

##### **a) What needs to be done to improve the situation?**

- Strengthen local human resources (ITC)
- Collaboration with clients (all institutions concerned)
- Exchange technology programmes
- Promote supply and demand
- Facilities and materials

##### **b) Who should initiate or “champion” this?**

- Lecturers (ITC staff) – all levels
- Intervention from Ministry of Education
- Educational expertise

“For all levels lower, middle and top levels. Educational expertise. Please come to help, not only ITC but also other lecturers and other universities.”

##### **c) Who should implement the proposals?**

- Governmental institutions
- ITC organization
- Stakeholders
- Undergraduates from ITC

##### **d) How will it be paid for?**

- Budget proposal and Planning
- Strategic planning

“Thank you and for your ideas.”

#### **Question from the floor:**

“You mentioned the experiences are different from when you were a young engineer. I would like to ask were you capable when you first graduated?”

Answer: “Being an engineer, it means those who put knowledge into practical scientific solutions. What I mentioned was the working environment, because academic theory and the practical application is often quite different.”

Comment from the floor: “Within the Department of Engineering you may be working in the field. You and I have to be aware of the social environment. Participation from the community is very important too. Please bring this topic and be aware about that. I left school in 1992. I am a graduate. Sorry to say that in Cambodian society maybe qualified persons look down on un-qualified persons. This is wrong. I did not previously have enough experience. With the competition we learn more and take courses in many countries, share experiences with you. You cannot know all, but must adopt and adapt.”

Response:

“A few words of advice for new or first year students, when we become experts or work in the private sector: be positive, learn a lot from your work do not be negative. Think about the work you will have in the future. We learn from our mistakes.”

A question from Mr. Va Synarong of International Labour Organization concerning collaboration:

“Why do we have a linkage only with other technical universities, here it should be with the client as well, not only universities, we need to cooperate with Agricultural and Private universities. Programmes can change our course syllabus, as it is not always to a high standard.”

Mr Va Synarong also proposed to ITC to add contract documentation as a topic.

**Dr. Om Romny**, Deputy Director, Institute of Technology of Cambodia, responded to the presentation from **CLIENT ORGANISATIONS** and explained with the aid of a comprehensive presentation (Higher Education, Engineering Education in Cambodia, Institute of Technology of Cambodia) the current available activities at ITC and which demonstrates the existing collaboration with the key Ministries and also shows activities in the last year with links both in the private and government sectors (See Appendix 3).

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**5.0 CONCLUDING REMARKS by Dr. Teresita C. del Rosario**, GMSARN Secretary General, office of the secretariat A.I.T. addressed the workshop:

“It is very good to hear dialogue between all the stakeholders. It is a dialogue between generations; the next generation have a real commitment in this country and while we can teach you, you have time to learn from our generation and learn from our mistakes.

I hope it is good a personal experience. My father was called after World War 2 to go to the rural areas with a lot of things he learnt from the communities. I look back on his experiences. Engineering is an important technology. It is important, but the people are the most important resource. Thank you for this dialogue, we acknowledge that some things we do in other countries are not always relevant to our own needs. You the future engineers will contribute and learn from not only this country, but from the region.

Many things we can learn from the past. Another workshop will be held in July. Continuing the collaboration, I want to thank you for arranging this workshop in this new building. Good luck to the students and for your future careers. “

Certificates were handed out to the workshop participants.

Finally, at the closing of the workshop, a speech was made by **Dr. Romny OM**, Deputy-Director, Institute of Technology of Cambodia (See the following page).

**CLOSING ADDRESS by Dr. Romny OM, Deputy-Director,  
Institute of Technology of Cambodia**

- Dr. Teresita C. del Rosario, GMSARN Secretary General, Acting Dean, AIT Extension
- Distinguished National and International Guests !
- Ladies and Gentlemen !

It is a great honour and privilege to give a conclusion and comment for the two day training workshop in ITC. Despite the great work accomplished within two day training I am impressed and pleased about seeing many key speakers and participants who came together from different places to meet in ITC with the objective to share experiences and discuss the **Institutional Capacity Building Needs for Better Rural Infrastructure** and their interest for Cambodia's development.

A total of 31 students from the Institute of Technology of Cambodia 13 staff and 30 key speakers and guests attended this meeting.

You have been discussing for two days, sometimes in a passionate way, about how to best improve the activities of research/implementation and their other needs. Somehow, you have paved the way for us, to better realize the needs of capacity building for serving in the field of rural development and how much it is required for Cambodia's development in diversity.

As stated the previous day, Cambodia has made it's remarkable progress in economic development over the past years and there are many achievements made by the Royal Government in the recent development. However, our human and economic resources are too limited to waste on un-coordinated schemes and we need to improve equitable access to education services, improving the quality and efficiency of education, strengthening and developing the institutional capacity for decentralization of the education system.

I am appreciating and hope that the training programme within two days in ITC will be a strong network for attendees to share a common interest in the development of capacity building. The ITC is a global partnership, engaging institutions, other higher education institutions, environment and development community, ministries, NGOs to build the capacity of professionals to meet the demand for sustainable development for the country's development goals.

In doing so, and with the help from GMSARN, Asean Foundation, keys speakers from different Ministries, NGO's and international organisations, this training has been completed successfully. It has positive results in building bridges between people, experiences in their works and students who are in step to start their work in the near future, and other participants coming from different institutions under different management.

This is an exciting achievement for Cambodian development. Moreover, on behalf of co-organizers of this training workshop, I would like to thank you the delegation from AIT-GMSARN and from friendly sponsor agencies and keys speakers for their support and continuing support to ITC.

The most important wish is, I would like to thank you very much to our supporters **Ms. Sirinthip Pongsuvinaï and Ms. Sorat Phuttha Phithak** for their support and suggestions, and also to the organizer **Mme. Men Nareth, Mr. Chhouk Chhay Horng, Mr. Phat Boné, Mr. Kaing Sao Serey, Mr. Noun Seila, and also to Mr. Soy Ty, Mr. Pen Khemora, Mr. Chorn Mongkul, and Miss. Meas Veasna** for their support and help. Without their involvement and support this training workshop could not have been successful.

Thank you very much for your contribution to this workshop and participation.

May I wish you a good luck and success in your works during the Khmer New Year 2005!

Thank you very much !

and I declare this training workshop is closed !



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