

Country Report:

Strategy for Capacity Building of TVET Lecturers in Cambodia

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1. Introduction: Cambodia and Korea's Shared History of Resilience

Cambodia and Korea both have history of overcoming difficult times. In Cambodia, after Khmer Rouge regime (1975-1979), the country lose many skilled people, leading to big shortage in labor and expert. The country is working hard to rebuild education and human capital which are important for economic growth. Korea also had to rebuild after Korean War (1950-1953). But, by focus on education and vocational training, Korea become one of most advanced and rich countries in the world.

Both countries understand important of education and training for economic development. Korea success is good example for Cambodia. Now, Cambodia is working on Pentagonal Strategy to grow human capital and economy. Strong cooperation between two nation, especially through KOICA, help Cambodia develop technical and vocational education and training (TVET) system.

Korea's Support and KOICA's Cooperation

Korea has been big help to Cambodia in rebuilding education, especially vocational training. KOICA has helped improve technical skill, digital integration, and build capacity for TVET educator. This helps prepare Cambodia for Industry 4.0, the Digital Economy, and Green Economy.

KOICA working with Cambodia since early 1990s, support sector like infrastructure, education, and human resources. KOICA helps with technical and vocational training, ICT, and digital transformation. This cooperation plays a big role in helping Cambodia achieve its strategic goal in education and vocational training.

2. Current Status of TVET Lecturers in Cambodia

TVET is very important for Cambodia development, especially because of Industry 4.0, Digital Economy, and Green Economy. But Cambodian TVET lecturers face many challenge that make it hard for them to give high-quality education for modern industry needs.

"Industry 4.0 can be defined as the integration of intelligent digital technologies into manufacturing and industrial processes. It encompasses a set of technologies that include industrial IoT networks, AI, Big Data, robotics, and automation." -- <https://sap.com>

2.1. Key Challenges

- **Limited ICT Skills:** Many TVET lecturers have no enough digital skill, so they cannot use ICT in teaching. This problem is more in rural areas, where they don't have much technology or training.
- **Outdated Teaching Methods:** Lecturers still use old style of teaching, mostly theory-based. But now more hands-on, practical learning is needed. Many lecturers do not get a chance to learn new teaching method, like project-based learning.
- **Not Enough Professional Development:** Professional development is very important but limited. Many lecturer not get regular training in new technology or updated teaching techniques. So, they not ready for modern workforce.
- **Weak Industry Links:** Lecturers do not have enough connection with industry, so curriculum is old and not match the labor market needs.
- **Urban-Rural Disparities:** There are big difference in resources and training between urban and rural TVET institutions. Rural lecturer face more problem to get modern teaching material and professional development.

2.2. Government and International Efforts

The Cambodian government and partner like KOICA are working to solve these challenges. Important efforts include:

- **ICT Integration:** KOICA helping by giving digital infrastructure and training for TVET lecturer, to improve digital literacy and use e-learning tools.
- **Professional Development:** Government support "train-the-trainer" program. Some TVET educator get advanced training in modern teaching, then share with others.
- **Curriculum Reform:** Ministry of Labour and Vocational Training (MLVT) updating TVET curriculum to add Industry 4.0 skill like IoT, automation and AI.
- **Public-Private Partnerships:** KOICA making partnership between TVET and industries so lecturer can learn about industry practice and new technology.

3. Importance of ICT Integration in Cambodian TVET

Cambodia need to modernize economy and respond to Industry 4.0, Digital Economy, and Green Economy. So, integration of Information and Communication Technology (ICT) in TVET is now very important. ICT not only improve education quality but also prepare student for modern job market. It is a key for success in Cambodia's economic strategy.

3.1. Bridging the Skills Gap

Cambodia have big skills gap, especially in industry that need digital and technical expertise. TVET institution are responsible to train student to fill this gap in sectors like manufacturing, IT, and engineering.

- **Digital Literacy:** Today, basic digital skill not enough. Cambodian workers need advance ICT skills like programming, data analysis, and automation. By adding ICT in TVET, student will learn skills needed for modern technology in industry.
- **Alignment with Industry Needs:** Industry using new technology like IoT, AI, robotics, big data. So, TVET need to prepare student to work with these tools. ICT integration make sure training stay relevant and student get job-ready skills.

3.2. Enhancing Teaching and Learning

ICT can improve both teaching and learning. TVET lecturers can use new method and students can enjoy more dynamic learning.

- **Interactive Learning:** Digital tools like e-learning platforms and virtual simulations make learning more interactive. It focus more on solving problem and practical learning which is important for vocational training.
- **Remote and Blended Learning:** ICT allow education beyond classroom. Especially in rural area, students can access learning material online. This is very useful for students who live far from school.
- **Teacher Support:** ICT help TVET educators with resources like lesson plans and professional development. Through online courses, teachers can keep learning and improve skill without leaving classroom.

4. Capacity Building Needs for Cambodian TVET Lecturers

For Cambodia to meet economic goals, TVET lecturer must have better skills. They need to help students get ready for workforce, especially in industries driven by digital technology and green energy. Right now, TVET lecturers have many limitations in skill, resources, and industry experience.

4.1. Enhancing Technical and Digital Competencies

Cambodia moving toward Industry 4.0, so TVET lecturers must have updated technical and digital skills. Industry need expert in fields like IoT, AI, robotics, and data analysis. Lecturers need to know these to prepare their students.

- **ICT and Digital Literacy:** Many TVET lecturer don't have enough digital literacy. They need training in ICT skills to use e-learning and digital tools in teaching.
- **Technical Skill Development:** Lecturers need regular training in new technologies like renewable energy and software development to stay current with industry trends.

4.2. Modernizing Pedagogical Approaches

Having technical skills important, but TVET lecturer also needs modern teaching methods. In many schools, traditional teaching still used, but vocational training need more practical learning.

- **Interactive and Experiential Learning:** Lecturers need training in interactive teaching, like project-based learning and problem-solving workshops. These methods help student apply what they learn in real world.
- **Competency-Based Training (CBT):** Lecturers should learn how to teach with CBT models, where students are tested on what they can do, not just what they know.

5. Strategies for Capacity Building

To solve the gap in skill, knowledge, and resource of TVET lecturers in Cambodia, we need strong and multi-step plan. The main goal is to make sure TVET educators not only good in their subject, but also ready to prepare students for modern industry, especially Industry 4.0, Digital Economy, and Green Economy. This part explains the key strategies for building capacity, like using international partnership, updating curriculum, working more with industry, and supporting continuous professional development.

5.1. Using International Partnership and Collaboration

Cambodia's TVET system get a lot of help from international partner like KOICA. This help very important for reforms and building capacity. It important to make these partnership stronger and bigger to keep building capacity.

- **KOICA's Role:** KOICA's program, like giving training in ICT and new teaching method, really help TVET lecturers. We should make more programs from this

cooperation, with more training in new technology, reforming curriculum, and making links with industry.

- **International Knowledge Exchange:** Cambodia can learn from countries that have strong TVET system like South Korea, Germany, and Singapore. Cambodian lecturer can join study tour, online exchanges, and internship abroad to see the latest teaching methods and industry trends.

5.2. Updating TVET Curriculum and Teaching Method

We need to align Cambodia's TVET curriculum with the skill needed for Industry 4.0 and Digital Economy to make it more useful for students. TVET lecturers should get training on modern teaching method and how to develop new curriculum.

- **Curriculum Reform:** MLVT should work with TVET schools to update the curriculum to include skill like automation, AI, robotics, and digital technologies. Lecturers should help develop the new curriculum and learn how to teach these topic well.
- **Using Digital Tools:** Digital tool like e-learning platforms and online resource should be part of the curriculum. Lecturers need training on how to use these tool to make learning interactive and fun for student.

5.3. Making Stronger Links with Industry

It important for TVET schools and industry to work together to make sure that the training programs are useful for the job market. Industry partnerships can give TVET lecturer real experience, new knowledge, and resource.

- **Industry and School Collaboration:** There should be regular meeting and cooperation between industries and TVET schools, with advisory boards, joint training program, and internships for lecturer. This will help lecturer stay updated with industry needs and teach relevant skill to students.
- **Internships and Externships for Lecturers:** A plan for TVET lecturer to do internship or short-term work in industries will help them understand the latest workplace technology and practice. This experience will help them teach in a way that match what job market need.

5.4. Continuous Professional Development (CPD)

Continuous Professional Development (CPD) is very important for TVET lecturers to keep up with new technology and industry changes. A well-planned CPD system, supported by national policy and international cooperation, will give lecturers regular chance to improve their skill.

- **Train-the-Trainer Programs:** One way to build capacity is train-the-trainer program. Selected lecturers get advanced training in certain technical areas or new teaching methods and then they train their colleagues in TVET schools. This way, more educator get the benefit from training.
- **Online CPD Platforms:** An online platform can be made to offer professional development courses, webinars, and workshops for lecturers to upgrade their skill whenever they need. KOICA and other international partners can help to make this platform.

5.5. Improving Infrastructure and Access to Resources

To teach modern vocational education well, TVET lecturer need better infrastructure and resources. This includes not only ICT infrastructure but also physical resources like labs, equipment, and updated teaching material.

- **Expanding ICT Infrastructure:** All TVET schools, especially Provincial Training Centers (PTC) in rural areas, need high-speed internet, computer, and other digital tools. This will help lecturers use digital tools and method in their teaching and improve learning for students.
- **Access to Modern Equipment:** Investment in modern equipment and tool is very important to help TVET lecturer teach hands-on skills that match industry need. Partnerships with local and international companies can help give the equipment needed for training in areas like robotics, renewable energy, and automation.

5.6. Policy Support and National Strategic Alignment

A good capacity-building strategy need strong policy support and to match with national goal. Cambodia's Pentagonal Strategy, which focus on human capital development, give a strong base for building capacity.

- **Aligning with National Strategies:** Capacity-building programs for TVET lecturers should match with the government's strategic plan, like MLVT's policy to transform TVET for Industry 4.0, Digital Economy, and Green Economy. This will make sure the training efforts fit the country's long-term goals.
- **Government Investment and Incentives:** The government should invest more in professional development for TVET lecturers, and give incentives like scholarships for more education. This will encourage educators to keep learning and developing their skill.

Building the capacity of TVET lecturers very important for the success of Cambodia's TVET reform. A plan that include international cooperation, modernizing curriculum, industry

partnerships, and continuous professional development is needed to give lecturers the skill to give high-quality education. With the help of the Cambodian government, partners like KOICA, and private companies, Cambodia can make strong and responsive TVET system that will prepare the workforce for the future economy.

6. Role of Policy and Government Support

Government policy and support are very important for success in changing Cambodia's TVET system. The Cambodian government make human capital development a key part of its strategy, shown in the Pentagonal Strategy. MLVT and other government bodies are key in making sure education reform fit the country's economic goals, especially for Industry 4.0, Digital Economy, and Green Economy. Strong policy is needed to support capacity building of TVET lecturers and ensure the system meet labor market demand.

6.1. Alignment with National Strategic Goals

Cambodia's government under Pentagonal Strategy focus on human capital as one of five key pillars. "Technical Skill Training" is important for growing the country's industry and economy.

- **Human Capital Development:** As Cambodia working on Phase 1 of Pentagonal Strategy, building skills of TVET lecturers is important part of the plan. By invest in educators, the government is helping the country have a workforce ready with technical and digital skills.
- **Policy for Digital Economy & Industry 4.0:** MLVT's plan to transform TVET for Industry 4.0 shows strong government support. This plan includes adding digital skills to TVET curriculum and making partnership with industry to keep training up-to-date.

6.2. Government-Led Initiatives and Reforms

The Cambodian government already started many initiatives to improve TVET education and build capacity for lecturers. These initiatives help solve problems and make the system more dynamic and responsive.

- **National TVET Policy:** The government's National TVET Policy focuses on creating a skilled and competitive workforce. Main parts include increasing investment in training for TVET educators, improving TVET infrastructure, and adding ICT in vocational training.
- **Public-Private Partnerships (PPPs):** The government has created partnerships between TVET schools and industries to help lecturers learn industry standards and better align their teaching to the real world.

- **Financial Incentives and Funding:** The government also give financial support for teacher training and improving school infrastructure. By working with international donors like KOICA, they make sure there is funding for TVET lecturer development.

6.3. Policy for Continuous Professional Development (CPD)

One big role of government is making sure there is a strong plan for Continuous Professional Development (CPD). The government need to ensure CPD is part of the TVET system.

- **Training Standards:** MLVT has started creating national standards for teacher training to make sure TVET lecturers get high-quality training that fits national development goals.
- **National Certification for Educators:** The government should set up certification programs so TVET lecturers can keep improving their skills. Lecturers who earn certifications in fields like ICT, green energy, or automation should be recognized and rewarded to encourage continuous learning.

6.4. International Cooperation and Policy Support

International cooperation is very important in helping Cambodia's TVET system, especially with technical and financial help from organizations like KOICA. The government's strong cooperation with international donors helps bring policy that focus on developing TVET.

- **KOICA's Contributions:** KOICA has worked closely with Cambodian government to build ICT infrastructure and train educators, helping modernize TVET schools and build capacity for educators. Continuing to work with KOICA and other international organizations is important to keep the progress going.
- **Regional and Global Integration:** Through ASEAN partnerships and cooperation with other countries, Cambodia is making sure its TVET policies match the labor market trends in the region. This helps Cambodia stay competitive, especially in new fields like ICT and green energy.

6.5. Policy Gaps and Areas for Improvement

While Cambodia has made progress, there are still gaps in policy that need attention to make TVET system better.

- **Rural Disparities:** One big challenge is making sure rural areas have the same resources and training as urban areas. Government should focus on reducing the gap by improving digital infrastructure and giving professional development programs to rural educators.
- **Monitoring and Evaluation:** Another area that need improvement is stronger ways to monitor and evaluate the success of TVET reform and capacity-building programs.

Regular review of educator performance and student outcomes will help improve policy for bigger impact.

7. Monitoring and Evaluation (M&E)

Monitoring and evaluation (M&E) are very important part of any capacity-building strategy for TVET lecturers. A good M&E framework will help measure progress and impact of capacity-building efforts and give insight for improvement. By setting clear indicators and regular evaluation, stakeholders can make sure that efforts to improve TVET are meeting national goals and labor market needs.

7.1. Establishing Clear Indicators

To monitor progress of capacity-building programs, it is important to create clear indicators that show the outcomes. These indicators should cover:

- **Professional Development Participation:** Track how many lecturers take part in training programs, workshops, and conferences. This shows engagement levels and effectiveness of professional development.
- **Skill Improvement:** Check how much lecturers improve their technical and teaching skills by comparing before and after training. This shows how well training programs work.
- **Student Outcomes:** Look at student performance, graduation rates, and employment after graduation. This will help show if lecturers are giving students the right skills for the job market.

7.2. Implementing Regular Assessments

Regular assessment is key to understanding how well capacity-building efforts are working and to make changes if needed.

- **Annual Reviews:** Do annual reviews of capacity-building programs to measure progress, find challenges, and make changes. These reviews should include input from TVET lecturers, industry representatives, and government officials.
- **Feedback Mechanisms:** Create feedback systems like surveys and focus groups for lecturers and students to share their experience and ideas for improvement. This feedback is very useful for improving training programs.
- **Benchmarking Against Best Practices:** Compare Cambodia's efforts with other countries to find gaps. By learning from successful TVET systems, Cambodia can adopt strategies that work well.

7.3. Engaging Stakeholders in the M&E Process

It's important to involve many different stakeholders in the M&E process to get a full understanding of the impact of capacity-building programs.

- **TVET Institutions:** Include educators and administrators in the M&E process to get insights from the people who are directly involved.
- **Industry Partners:** Industry representatives can provide feedback on how well students are prepared for the job market and help make sure training stays relevant.
- **Government Agencies:** Government agencies like MLVT should be involved to make sure the programs align with national policies and goals.

7.4. Utilizing Data for Continuous Improvement

The data collected from M&E should be analyzed regularly to help make decisions and plan strategies.

- **Identify Trends and Gaps:** Review data to find trends in educator effectiveness and student outcomes. This will help show where more support or resources are needed.
- **Adjust Policies and Programs:** Use the insights from data to adjust programs and policies. This will make sure training stays aligned with industry needs and standards.

8. Conclusion and Recommendations

Conclusion

Building capacity of TVET lecturers in Cambodia very important to improve quality of vocational education and make it fit with the needs of fast-changing labor market. As the country wants to improve economic development with the Pentagonal Strategy and face challenges of Industry 4.0, Digital Economy, and Green Economy, skilled educators play a very big role. With good policies, strong partnerships, and proper monitoring and evaluation, Cambodia can make strong system for building skills of its TVET workforce.

Even though there is progress, challenges still remain, like differences in access to training and resources, especially in rural area. To solve these problems, all stakeholders need to work together. This include government agencies, schools, industry partner, and international organization like KOICA.

Recommendations

1. **Improve Professional Development Opportunities:**

- Make strong, ongoing professional development plan for TVET lecturers that give both technical and teaching training. This plan should include new teaching methods and industry skills that are important for new technologies.
- 2. **Strengthen Industry Partnerships:**
 - Make closer cooperation between TVET schools and industries to make sure the curriculum is always useful for job market. This can be done by having regular meetings, joint training programs, and internship for teachers in industry.
- 3. **Increase Investment in Infrastructure:**
 - Focus more investment in digital infrastructure and resources, especially in rural areas. Giving access to modern equipment and technology will help TVET lecturer to give good, practical training.
- 4. **Use Strong Monitoring and Evaluation:**
 - Make a good M&E system with clear indicator to check how well capacity-building programs are working. Regular feedback from educators and industry will help make things better.
- 5. **Promote Equal Access:**
 - Solve the problem of unequal access to training and resources by making special programs to help TVET schools in poor or rural areas. This may include mobile training unit or online courses for educators in remote area.
- 6. **Use International Support:**
 - Keep working with international partners like KOICA to get technical help and funding for capacity-building programs. Using global best practices will help make Cambodia's TVET system better.

Final Thoughts

By following these recommendations, Cambodia can make strong and skilled workforce that ready for challenge of changing economy. Developing TVET lecturers is not only important for students, but also for the country's economic progress. With ongoing commitment and cooperation from all stakeholders, Cambodia can reach its goal of modern and effective vocational education system.