Enhancement of Science, Technology and Innovation (STI) in Public Universities of Myanmar

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Professor

DATE: 4-2-2020
Outline

- Situation Analysis
- Questionnaires Survey (Objectives, Feedback, Results)
- R&D Body and Policy Issues
- University, Research Institutes and Industry Collaboration Guideline
- Implementation Activities on R&D and S&T
- Summary of R&D and STI Policy Suggestion
Government S&T and R&D System of Myanmar (Situation Analysis)

Currently, chairman of NCSTD are assigned to Vice-President

New Science, Technology and Innovation Law has been legislated and there has been changes in the organizational structure.

Sources: KSP Public R&D of Myanmar (2015, KDI)
**Title:** “Questionnaires Survey for Academia Regarding Issues and Challenges to Establish University (U), Research Institution (R) and Industry (I) Collaboration”

**Objectives:**

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<tr>
<td>1</td>
<td>Provide <em>feedback and comments</em> on University, Research Institution and Industry (URI) collaboration</td>
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<td>2</td>
<td>Study and analyze <em>the current issues and challenges</em> to establish URI collaboration</td>
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<td>3</td>
<td>Extract <em>the necessary information</em> that is useful in the formulation of Science and Technology (S&amp;T)/Research and Development (R&amp;D) related Policies.</td>
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Number of Respondent among Myanmar, Indonesia and Vietnam countries

- Conducted same questionnaires survey for Myanmar, Indonesia and Vietnam and held the workshop to get input for R&D policy from different perspective of R&D resources

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<tr>
<th>Sr</th>
<th>Organization</th>
<th>Respondent of (University/Institutes/Industry)</th>
<th>Number of Respondent</th>
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<tr>
<td></td>
<td></td>
<td>Myanmar</td>
<td>Indonesia</td>
</tr>
<tr>
<td>1</td>
<td>University/Institutes</td>
<td>39</td>
<td>6</td>
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<tr>
<td>2</td>
<td>Research Institutes</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Industry/Private Sector</td>
<td>53</td>
<td>-</td>
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Feedback on **Challenges (C)**, and **Advices (A)** to establish URI collaboration

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<td>1</td>
<td>Teaching and other administrative loads become barrier for undertaking industrial projects.</td>
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<td>2</td>
<td>Many industries and government agencies/companies do not cooperative in opening their data for research purpose.</td>
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<td>3</td>
<td>Academia requires continuous research grants</td>
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<td>4</td>
<td>Lack of trust to execute and accomplish the project</td>
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<td>5</td>
<td>There is not clear procedures to arrange collaboration between industries, universities and government. How to make standardization for collaboration?</td>
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<td>6</td>
<td>Lack of communication among institutions. Academia is lack of the ability to LISTEN what industries needs</td>
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<td>Collaborations tend to centralize on Big Universities/Research Institutions</td>
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<td>8</td>
<td>Some of the research priorities are still based on science-oriented project, without being accompanied by any considerations toward industrial needs and how to create any follow-up projects that can be offered and delivered to the industries</td>
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<td>9</td>
<td>Long bureaucracy system that is not time efficient</td>
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<td>10</td>
<td>Limited research facilities</td>
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<td>11</td>
<td>Different mind sets and speed of works between Academia and Industry people. And both parties have different motivations including objectives and goals in making collaboration.</td>
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Feedback on **Challenges (C)**, and **Advises (A)** to establish URI collaboration

### Advises (A)

1. To effectively bridge between U/R and I, each U/R should establish Technology Transfer Office (TTO)

2. Government policy should determine the roles for each universities, research institution and industry to avoid any unfair competitions, so that mutual collaborations can be established

3. Academia should find out the real problems in Industry, rather than doing research on their interests

4. Collaborative research should rely on external funding from Industries, instead of Government

5. When government creates "research/technology roadmap", the government should involve major industrial R&D, and take their feedbacks as a major part in the roadmap
Expected URI collaboration among Myanmar, Indonesia and Vietnam

Six Type of URI Collaboration

- (Myanmar)
- (Indonesia)
- (Vietnam)
Six Types of University’s Support to Industry

Six Types of Support

- Technology
  - Myanmar: 77%
  - Indonesia: 61%
  - Vietnam: 17%
- Research and Development
  - Myanmar: 50%
  - Indonesia: 28%
  - Vietnam: 8%
- Employee/Skilled workers
  - Myanmar: 58%
  - Indonesia: 56%
  - Vietnam: 28%
- Resources for Research
  - Myanmar: 63%
  - Indonesia: 52%
  - Vietnam: 55%
- Training for Employee
  - Myanmar: 55%
  - Indonesia: 61%
  - Vietnam: 19%
- Gender/Team work/...
Output of Questionnaires Survey

R&D and S&T

- 100% agree with the requirement of media
- 95% institutions has desire to cooperate
- 97% institutions agree on development of the nation-wide R & D policies as guidelines for URI collaboration
- over 50% desires the government to support
R&D Coordination Body
R&D Policy Issues

- Prioritization of Research
- Commercialization of Research
- R&D Fund
- Collaboration & Network
- Cooperation (Regional, International)
- Institutional Framework
- Capacity in ICT & Socio-economic
- HR Development & Management
- Ethics & IPR
- Cross Cutting Issues

05-02-20
Workshop on URI Guideline

Backdrop of URI Guideline Workshop on 8 Oct-2018 in Yangon

Dr. Mi Sandar Mon, Co-chair of Workshop (SCIRD’s Focal Person)

Dr. Ei Ei Htwe’s Presentation (ASEAN-U.S S&T Fellow, 2016-17)

U Win Khaing Moe, Director General of DRI (COSTI’s Focal Person)
Implementation Activities of R&D and S&T

Working Group of Workshop on 22nd August- 2018

STI Office is Opened in MTU on 6th February- 2018

Ms Quynh Anh’s Presentation (Vietnam)

Dr. Edi Kurniawan’s Presentation (Indonesia)

Dr. Ei Ei Htwe’s Presentation (Myanmar)
Summary of R&D and STI Policy Suggestion

(A) Awareness of the benefits of URI Collaboration
(B) The roles of government to support URI Collaboration
(C) Teaching and administrative loads become barrier
(D) Confident to undertake Industrial projects
(E) Nation-wide R&D Policies as a guideline

Survey questions are still broad and general, and they are addressed to Academia, research institutes and industry.

Policy Suggestion

A. Development of R&D policy infrastructure
B. Increasing R&D resources
C. Enhancing efficiency of Public R&D
D. Promotion of Private R&D and Innovation
THANK YOU FOR YOUR KIND ATTENTION