ASEM ACTION PLAN 2030 WORKSHOP 4: “LIFELONG LEARNING INCLUDING TVET” – ADB-ASEM PARTNERSHIP

9 February 2021
I. ADB PORTFOLIO AND NEW NORMAL
II. LIFE-LONG LEARNING AND LEARNING SOCIETY
III. TWO KEY ELEMENTS OF LIFE-LONG LEARNING
IV. ASEM-ADB PARTNERSHIP
EDUCATION PORTFOLIO - ONGOING

Ongoing projects ($6.63 billion):

- 73 ongoing projects in over 20 countries – 29 projects in TVET, 15 education sector development, 13 secondary education, 9 pre-primary/primary, 7 tertiary education
Pipeline projects ($6.78 billion):

- Over 50 projects
  - 19 projects in TVET,
  - 11 tertiary education,
  - 9 education sector development,
  - 6 secondary education,
  - 6 pre-primary and primary,
COVID-19 adds to existing challenges

- ‘Learning crisis’
- Issues with teacher capacities or use of new generation technologies
- Continuation of rote learning
- Traditional settings and provision
EDUCATION LENDING HISTORY AND PIPELINE

in $ million

413 631 293 647 816 711 1,087 846 3,145 870 1,066 2,350 1,903 2,084
II. LIFE LONG LEARNING APPROACHES
WHAT IS THE NEED FOR LIFE LONG LEARNING?
..Technology, Millennials, and Future Economies

ADB EDUCATION OPERATIONS FACE REALITIES OF:

- SLOW PACE OF CHANGE
- TRADITIONAL STYLES
- LACK OF SYSTEMS CAPACITY

- Technology, Millennials, and Future Economies
- Geometric progression
- Disruptive technology
- Complex skills
- Fast obsolete
- Open learning styles
- Uncertain future
- Unknown job markets
| Serve the economic interests of the country: global value chains; export competitiveness |
| Include modern and digital capabilities and advanced technologies |
| Resilient and agile to meet emerging needs disruptions and changing labor markets |
| Ensure foundational strength of capacities including soft skills |

**Life Long Learning Approaches – Priority Goals**

Serving the interest of economies, youth and other beneficiaries, including the vulnerable
III. TWO ELEMENTS OF LIFE-LONG LEARNING
- INDUSTRY 4.0
- MULTIPLE STAKEHOLDERS
ADB study on Fourth Industrial Revolution and implications for skills and jobs in ASEAN

Recently released 4-country study

https://www.adb.org/publications/benefits-industry-skills-development-southeast-asia
### Implications of 4IR on two sectors in each economy

<table>
<thead>
<tr>
<th>Cambodia</th>
<th>Indonesia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garments</td>
<td>F&amp;B</td>
<td>IT BPO</td>
<td>Agro-processing</td>
</tr>
<tr>
<td>Tourism</td>
<td>Automotive</td>
<td>Electronics</td>
<td>Electronics</td>
</tr>
</tbody>
</table>

#### Steps for understanding skill gaps in each sector

1. Assess the sector’s growth trajectory and potential of 4IR
2. Assess employment and skills implications of impact of 4IR
3. Explore changing nature of tasks and skills
4. Explore training required and volume of training
5. Assess education and training channels
### Sentiments towards Industry 4.0 in different sectors and ASEAN Member States

#### Percent of respondents who agree or strongly agree, %

<table>
<thead>
<tr>
<th>Sector</th>
<th>Cambodia</th>
<th>Indonesia</th>
<th>Philippines</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garments</td>
<td>6</td>
<td>19</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Tourism</td>
<td>4</td>
<td>20</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>F&amp;B</td>
<td>45</td>
<td>76</td>
<td>61</td>
<td>60</td>
</tr>
<tr>
<td>Automotive</td>
<td>48</td>
<td>17</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>IT BPO</td>
<td>59</td>
<td>61</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>Electronics</td>
<td>49</td>
<td>60</td>
<td>10</td>
<td>41</td>
</tr>
<tr>
<td>Agro-processing</td>
<td>41</td>
<td>58</td>
<td>17</td>
<td>63</td>
</tr>
<tr>
<td>Logistics</td>
<td>42</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

**My company already adopts 4IR technologies in our operations**

- Cambodia: 6%
- Indonesia: 43%
- Philippines: 45%
- Viet Nam: 42%

**My company plans to adopt 4IR technologies in our operations by 2025**

- Cambodia: 19%
- Indonesia: 20%
- Philippines: 59%
- Viet Nam: 48%

**SOURCE:** Employer surveys conducted in Cambodia, Indonesia, Philippines, and Viet Nam
Positive net impact of 4IR on jobs

Modelled impact of I4.0 on number of jobs between 2018 and 2030 in different sectors

<table>
<thead>
<tr>
<th>Country</th>
<th>Sector</th>
<th>Displacement effects</th>
<th>Income effects</th>
<th>Net impact on jobs3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>Garments</td>
<td>5</td>
<td>-12</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Tourism</td>
<td>5</td>
<td>-3</td>
<td>5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>F&amp;B</td>
<td>5</td>
<td>-29</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Automotive</td>
<td>5</td>
<td>-29</td>
<td>30</td>
</tr>
<tr>
<td>Philippines</td>
<td>IT BPO</td>
<td>5</td>
<td>-24</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Electronics</td>
<td>5</td>
<td>-24</td>
<td>34</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Agro-processing</td>
<td>5</td>
<td>-33</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Logistics</td>
<td>5</td>
<td>-26</td>
<td>38</td>
</tr>
</tbody>
</table>

1 Job reductions due to labor-substitution effects of I4.0.
2 Additional labor demand stimulated by revenue increases brought about by I4.0-enabled productivity gains.
3 Combination of displacement and income effects.

SOURCE: Various local economy data and AlphaBeta modelling
Incremental skills demand for 4IR requires “on-the-job” training

Additional person trainings\(^1\) required to meet skills demand driven by Industry 4.0 adoption in different industries and countries, in 2030, by training channel

Share of person trainings required by channel; Percent\(^2\)

<table>
<thead>
<tr>
<th>Industry</th>
<th>On-the-job training</th>
<th>Short professional training</th>
<th>Longer formal training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garments</td>
<td>57%</td>
<td>14%</td>
<td>29%</td>
</tr>
<tr>
<td>Tourism</td>
<td>77%</td>
<td>18%</td>
<td>5%</td>
</tr>
<tr>
<td>F&amp;B</td>
<td>50%</td>
<td>28%</td>
<td>19%</td>
</tr>
<tr>
<td>Automotive</td>
<td>62%</td>
<td>19%</td>
<td>22%</td>
</tr>
<tr>
<td>IT-BPO</td>
<td>59%</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>Electronics</td>
<td>61%</td>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>Agro-processing</td>
<td>48%</td>
<td>34%</td>
<td>11%</td>
</tr>
<tr>
<td>Logistics</td>
<td>64%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures include rounding adjustments
1 One-person training refers to training one worker, in one skill from the level required by his occupation’s skill profile in 2018 to the relevant level given by the skills profile in 2030.
2 “On-the-job” training refers to training conducted during day to day such as senior staff instructing junior staff or running internal seminars; “Short professional” training refers to short (between 1 day to 6 months) courses conducted by professional internal or external instructors (e.g. weekend seminars, boot-camps); “Longer formal” trainings refer to trainings longer than 6 months for which workers would likely have to take leave from their jobs, these include returning into formal education such as obtaining a degree

SOURCES: Local industry data and ADB-AlphaBeta study
Prevalence of technology-related courses at training institutions

- Courses specifically for I4.0: 50% in Cambodia, 56% in Indonesia, 52% in Philippines, 50% in Viet Nam.
- Digital skills programs to improve general digital literacy: 70% in Cambodia, 56% in Indonesia, 56% in Philippines, 38% in Viet Nam.
- Additional modules on new I4.0 skills incorporated into conventional courses: 70% in Cambodia, 48% in Indonesia, 46% in Philippines, 46% in Viet Nam.

Prevalence of technology-based delivery in teaching at training institutions

- Online self-learning modules: 70% in Cambodia, 69% in Indonesia, 62% in Philippines, 45% in Viet Nam.
- Interactive videos: 50% in Cambodia, 56% in Indonesia, 54% in Philippines, 38% in Viet Nam.
- Use of simulators: 30% in Cambodia, 34% in Indonesia, 33% in Philippines, 32% in Viet Nam.
- Use of virtual reality/augmented reality mechanism: 10% in Cambodia, 16% in Indonesia, 26% in Philippines, 18% in Viet Nam.
- Virtual learning platform: 4% in Cambodia, 15% in Indonesia, 19% in Philippines, 15% in Viet Nam.

SOURCE: Training institution surveys in Cambodia, Indonesia, Philippines, and Viet Nam.
Digital agenda going forward

**TVET**

- Advanced digital skills such as data science, big data, AI, and machine learning
- Real-time and AI-powered job matching platforms
- Qualification frameworks with micro credentials for upskilling and reskilling
- Blended learning platforms established for learning continuity and upskilling

**HIGHER EDUCATION**

- Online courses for basic, intermediate, and advanced skills
- Digital platforms for lifelong learning with stackable credentials, nano degrees, micro masters degrees, etc.
- Blockchain for degrees and micro credentials
- Advanced virtual research labs and digital science capabilities
- Real-time and AI-powered job matching platforms
Multiple Stakeholders in a Learning Society

ADB BOOK ON POWERING A LEARNING SOCIETY DURING AN AGE OF DISRUPTION

FORTHCOMING APRIL 2021

<table>
<thead>
<tr>
<th>Community</th>
<th>CSO</th>
<th>Private sector</th>
<th>Schools TVET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizen role</td>
<td>Private equity</td>
<td></td>
</tr>
<tr>
<td>Metropolitan authorities</td>
<td>Government</td>
<td>Online providers Coursera</td>
<td>City Planners Smart Cities Learning Cities</td>
</tr>
<tr>
<td>Parents</td>
<td>Infrastructure B4S – Build for Skills</td>
<td>Universities Future Proofing Students</td>
<td>Learning Assessments</td>
</tr>
</tbody>
</table>
IV. ADB-ASEM PARTNERSHIP
## Life cycle approach to education

### Expected Trends

- Continuous skill upgrade and re-skilling critical; No degrees/qualifications for life
- Digital skills to be central to education and training (Gartner estimates that 80% of secondary schools in 2024 will have curriculum for specific digital skills)
- Digital solutions to address the historical pile-up of learning deficits
- Universities will redefine cost parameters of face-to-face and online education
- Rising household expenditures on EdTech
- Management of facilities and resources based on enrollments through big data

### Implications

- Lifelong learning initiatives needed; micro-credentials for short courses
- Greater demand for coding, computers in K-12; Practical training with Augmented Reality, Virtual Reality, and Mixed Reality solutions; digital curriculum design
- In-school and after-school initiatives and tech-enabled remediation
- Regulatory changes to enable universities to offer entirely online tertiary education
- Rising role of parents and communities
- Educational institutions need to adapt infrastructure and learning

**SHARE SUCCESSFUL PRACTICES FROM EUROPE**
Key areas for ADB-ASEM knowledge sharing

- Re-balance focus areas and approaches:
  - From early-stage education/training to life cycle-based approach
  - From institution-based to learning outside formal settings
  - From face-to-face to blended and digital learning and training
  - From academic to experiential, workplace based learning
  - From technical skills to a combination of technical, soft skills and ‘learning to learn’ skills
  - From traditional degrees to digital and micro credentials for life-long stacking and continued learning

- Special focus on disadvantaged and underprivileged, particularly girls

PROMOTE EXCHANGE OF KNOWLEDGE AND PEER-TO-PEER INTERACTIONS
THANK YOU