Skills for Economic Transformation

Making technical and vocational education and training (TVET) responsive to the future needs of the economy
Agenda

- The context: the Masterplan for Economic Transformation
- Trends in education and job creation
- Why worry about training?
- A concept for improving quality and relevance of training
The Context: Masterplan for Economic Transformation
Transform Indonesian economy by 2025 to reach:
- Nominal GDP of $6.4-$8.1 billion
- Nominal GDP per-capita of $20,600-$25,900
- Significant improvement in poverty and human development indicators

Transform the structure of Indonesian economy in 2030 by increasing secondary and tertiary economic activities:

**INDONESIA (Lower middle income country)**
Economic Structure 2009

**DEVELOPED COUNTRY**
Economic Structure 2025
The plan is focused in 8 programs and 22 activities

Economic Transformation Master Plan
1. Agriculture
2. Mining
3. Energy
4. Industrial
5. Marine
6. Tourism
7. Telecommunication
8. Development of strategic areas

Organized in economic corridors
The programs and products are linked to 6 economic corridors.
Each economic corridor has detailed planning
Example: Java
The plans by economic activity are very detailed, for example in Java:

- Manufacturing: food and beverages, textiles, transportation equipment
- Service Industry: ICT, shipping industry
- Defense equipment
- Infrastructure and spatial planning in the greater Jakarta area

- For each activity the plan identifies regulations that need to be changed, connections/infrastructure that needs to be improved and main investment requirements

- But the typical HR strategy for each corridor / economic area reads as follows:
  - “Recruit qualified human resources from within Indonesia and abroad;
  - Improve education and training for local experts supporting the food and beverage industry.”
So how can Indonesia plan for the workforce that it will need in the future?

- **Looking at recent trends**: Is the system responding to the changing demands in the labor market?
  - More educated labor market entrants than ever (expansion in access)
  - Big expansion in higher education

- **Looking into the future**:  
  - How will the economy evolve?  
  - How will the labor force evolve?
Accurate workforce planning in a country like Indonesia is impossible: the focus should be on the system

- Planning a *supply push* based on the Masterplan is unreasonable:
  - The Indonesian economy is too large and complex to do central planning
  - The Masterplan is only a plan: priorities and/or market conditions might change
  - Even if implemented exactly, the labor intensity and skill composition within sectors may change

- What this analysis does is show *the magnitude of the mismatch*: the current supply will need to adjust

- The focus needs to be on ensuring the education and training system can *respond to the changing needs of the productive sector*
Trends in Education and Job Creation
The educational composition of the labor force has improved dramatically over a generation.

In 2 generations, the share of the population with primary or less from almost 70 percent to less than 25 percent.

Source: Susenas, 2010
And the next generations will continue to have higher educational attainment

- GER in junior and senior secondary grew by 20 and 40 percent respectively
- Higher education growing faster but from a very low baseline
- Acceleration in the last 5 years
In the last decade, most new jobs were for graduates of more than basic education

- The change in employment by level of education is clear: the labor force is becoming more educated quickly.
- Over 75 percent of new jobs were for higher than basic education graduates.

Source: Sakernas
There are signs that the influx of more educated workers may be starting to lower returns to education in recent years.
Part of the explanation is a skills mismatch: graduates are going to unskilled jobs (¼ to be exact)

✓ Some **good news:**
  - Most of the growth was in appropriate, semi-skilled positions
  - Most of the growth was in wholesale trade (36%)

✓ Some **bad news:** 24% was in unskilled jobs: agricultural laborers (16%) and “blue-collar” workers (8%)
Most of the growth was in “low returns” sectors, the returns in manufacturing and mining are growing quickly.

- The decrease in average returns is driven by disproportionate job creation in lower returns sectors: wholesale and agriculture.
- The returns to senior secondary in service sector are decreasing rapidly.
- The returns in manufacturing sector are increasing: shortage of graduates?
Employers consider in need of training a large share of those employed in manufacturing and service sectors.

By type of job:
- Skilled production: [Graph showing percentage]
- Administrative: [Graph showing percentage]
- Permanent workers: [Graph showing percentage]
- Sales workers: [Graph showing percentage]
- Professionals: [Graph showing percentage]
- Directors: [Graph showing percentage]
- Unskilled production: [Graph showing percentage]

By level of education:
- SMA: [Graph showing percentage]
- SMK: [Graph showing percentage]
- Diploma: [Graph showing percentage]
- SMP: [Graph showing percentage]
- University: [Graph showing percentage]
- Primary or less: [Graph showing percentage]

Source: Indonesia Skills Survey (2010)
Employers complain that it is difficult to find workers with the right skills, especially exporters.

Share of firms identifying the task of finding workers hard or very hard, by type of job

a. Nonexporters

- directors: 79%
- professionals: 60%
- administrative workers: 11%
- sales workers: 26%
- production workers: 25%
- unskilled workers: 4%

b. Exporters

- directors: 85%
- professionals: 70%
- administrative workers: 16%
- sales workers: 36%
- production workers: 39%
- unskilled workers: 2%

Source: Indonesia Skills Survey (2010)

High level of skills are very hard to find

Skilled production is hard to find for exporting firms (quality?)

Meanwhile a high share of SMK graduates is unemployed

As Indonesia moves up the value chain, finding skilled production workers will be more difficult
Yet very few firms provide training opportunities, especially small and medium and non-exporters.

That small firms don’t train is not surprising: a big driver of whether firms offer opportunity for training is the need for quality.

But even large firms offer significantly less training in Indonesia than in the region.

Source: World Bank, Enterprise Surveys 2009
Why worry about training?
Changing the skills of the labor force through formal education will take a long time

- Even achieving:
  - Universal access to senior secondary
  - Doubling the enrollment rates in higher education

By 2020:
- Still half of labor force with less than senior secondary
- Only 15 percent with higher ed
The current training system is underdeveloped, low use of the competency standards and competency-based trainings

Most courses in BLK offer are not competency based

Of the 6,500 competency units developed in 148 occupations, less than 10% are used (for training or certification)

There are only 128 certification centers (TKU) and only 6,000 certified workers

Source: BLK Survey, World Bank (2011)
And concentration of non-formal training institutions in low quality, basic vocational skills

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<tr>
<th>Number of non-formal training institutions</th>
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<tbody>
<tr>
<td>Computer</td>
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<tr>
<td>Language</td>
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<tr>
<td>Beauty/Spa</td>
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<td>Sewing</td>
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<td>Education</td>
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<td>Tourism/Services</td>
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<td>Technology</td>
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<td>Agriculture / Fishing</td>
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<td>Ship / Sailor</td>
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- The current system is focused on very basic vocational skills
- Very little Agriculture and Technology
- Almost non-existent for some “priority sectors”

Source: MoEC, 2010
Responding to Challenges
In summary:
Four key messages of the presentation

- The advances in access to education in Indonesia are finally paying-off:
  - Most new labor market entrants have at least senior secondary education, many more have higher education
- There are indications that the graduates do not have the right skills
  - About ¼ enter lower level occupations and low productivity sectors
  - Returns to education are starting to decrease
  - Employers consider a large share of them in need of retraining
- Employers rarely offer training, and available training institutions focus on low quality, basic vocational skills
- There is need for public sector intervention to i) ensure a stronger role from private sector, ii) coordinate across ministries, iii) credible quality assurance system, iv) subsidize demand
Thanks!

pcerdaninfantes@worldbank.org