Training Workshop on Education Policy Formulation & Monitoring

UNESCO Bangkok

May 27th–31st, 2013
Education and Development

Gwang-Jo Kim
Director, UNESCO Bangkok
Contents

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II. What have been policy responses?

III. What are the gaps/challenges?

IV. Ways forward
I. Why do we care?

1. Notable Developmental Changes & Implications for Education

2. Nexus Between Education and Development
Economic Changes (1)

GDP 2000 – 2009
(Constant 2000 prices, USD millions)

Source: World Bank (2011)
Annual GDP Growth Rate 2000 – 2009
(Constant 2000 prices, %)

Source: World Bank (2011)

Economic growth in AP Region has been much higher than in other regions.
The Rise of South


Source: UNESCO adaptation using data from the World Bank (2011)
FDI Inflows/Outflows on the Rise

Foreign direct investment inflows by sub-region, 2003-2009

Source: Extracted by ESCAP from UNCTADstat (2010a) data.


Foreign direct investment outflows by sub-region, 2003-2009

Source: ESCAP, based on data from the UNCTADstat (2010a).

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Free Trade Agreement (FTA)

Growth of Asian FTAs (signed and in effect) 1995–2010

Industrial Shift

Value-added by sector (% of total value added) – 1990 and 2009

Source: United Nations (2011), Statistical Yearbook for Asia and the Pacific
### Labour Market Changes

#### Share of Employment by Sector (% change past decade (1999-2009))

<table>
<thead>
<tr>
<th>Sector</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>35.0</td>
<td>21.8</td>
<td>43.2</td>
</tr>
<tr>
<td>Developed Economies &amp; EU</td>
<td>3.7</td>
<td>23.4</td>
<td>72.8</td>
</tr>
<tr>
<td>Central and South-Eastern Europe (non-EU) and CIS</td>
<td>20.1</td>
<td>24.6</td>
<td>55.2</td>
</tr>
<tr>
<td>East Asia</td>
<td>36.9</td>
<td>27.8</td>
<td>35.3</td>
</tr>
<tr>
<td>Southeast Asia &amp; the Pacific</td>
<td>44.3</td>
<td>17.7</td>
<td>38.0</td>
</tr>
<tr>
<td>South Asia</td>
<td>53.5</td>
<td>18.9</td>
<td>27.6</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>16.3</td>
<td>22.2</td>
<td>61.6</td>
</tr>
<tr>
<td>Middle East</td>
<td>19.1</td>
<td>26.1</td>
<td>54.8</td>
</tr>
<tr>
<td>North Africa</td>
<td>27.8</td>
<td>22.5</td>
<td>49.7</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>59.0</td>
<td>10.6</td>
<td>30.4</td>
</tr>
</tbody>
</table>

Source: ILO (2011), *Global Employment Trends*
... but With Increasing Youth Unemployment

Global Youth Unemployment, 1991-2012

Source: ILO (2012)
Technological Changes (1)

Growth rates of internet users and mobile cellular subscribers in AP
% per annum, 2006 - 2008

Growing number of website
Number of websites (in millions)
1995-2010


Source: OECD (2010), Trends Shaping Education.
Broadband Penetration by Region

Source: ITU World Telecommunication/ICT Indicators database (2010)
(2010 data is an estimate)
Persistent Digital Divide


Mexico and Colombia: Drug money provides criminal cartels with weapons and power.

Nigeria: Police report that the group usually referred to as Boko Haram is responsible for at least 1,200 deaths since 2009.

Democratic Republic of Congo: Many insurgent groups were integrated into the country’s army in 2009. In 2012, some groups mutinied and pulled out of the national army.

Nepal: There are thought to be between 50 and 100 armed groups active in the south–east of the country.

Worldwide woes in 2011

Every populated continent on Earth endured a significant natural disaster in 2011. The total damage cost of $380 billion was the highest on record.

- Geophysical events (earthquake, tsunami, volcanic activity)
- Climatological events (extreme temperature, drought, wildfire)
- Meteorological events (storm)
- Hydrological events (flood, mass movement)

Source: Munich Re

Source: USA Today (2011)
Demographic Changes (1)

Population Projections (absolute numbers), 1950-2100

Source: UN-DESA Population Division (2011)
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Demographic Changes (2)

Aging Population with Declining Share of School-Age Children (0-14) in AP

Source: UN ESCAP (2009), Statistical Yearbook for Asia and the Pacific.
Migration in the modern age

- 214 million international migrants worldwide (3.1% of the world’s population)
  - the equivalent to the fifth most populous country in the world (or the size of Indonesia)
  - Proportions are projected to remain about the same

- Migration is mostly intra-regional, increasingly ‘feminised’, more dispersed, and more concentrated in dynamic, lower income countries

- As much migration between less developed countries as from less to more developed countries

Migration Trend

Estimated number of international migrants by major region, 1990-2010 (millions)

Source: UN Population Division (2010)
Mobility & Migration (3)

Migration in the Asia-Pacific region

Top 10 emigration countries (number of emigrants in millions) – 2010

- Mexico
- India
- Russian Federation
- China
- Ukraine
- Bangladesh
- United Kingdom
- Pakistan
- Turkey
- Philippines

The Asia-Pacific region:
- hosts a foreign population of over 50 million
- contributed to over 50 million emigrants worldwide
- half of the international migrants within the East Asia and Pacific sub-region, migrate within

Sources:
Advances in Scientific Research

• New insights from neuroscience and the emerging interdisciplinary ‘science of learning’
  • many opportunities with implications for individual learning
  • potential to further improve pedagogy and education policy and practices

• Early learning is crucial: it has a significant impact on future life outcomes

• Lifelong learning: findings from neuroscience indicating that:
  • there are no ‘critical periods’ when learning must take place
  • rather ‘sensitive periods’, given brain’s neuroplasticity
I. Why do we care?

1. Notable Developmental Changes & Implications for Education

2. Nexus Between Education and Development
   i. What is Development?
   ii. What about Poverty?
   iii. Education as a Source of Development
   iv. ‘Push and Pull’ between Education and Development
What is Development?

Development

“Development can be seen... as a process of expanding the real freedoms that people enjoy...[It] requires the removal of major resources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or over activity of repressive states.

Sen, 1999, p.3
What is Development?

Sustainable Development

Development is sustainable if it “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

*UN World Commission on Environment and Development in 1987*
What is Development?

Human Development

Process of enlarging people's choices. Their three essential choices are to lead a long and healthy life, to acquire knowledge and to have access to the resources needed for a decent standard of living. Additional choices, highly valued by many people, range from political, economic and social freedom to opportunities for being creative and productive and enjoying personal self-respect and guaranteed human rights.

UNDP, 1995
“Fundamentally, poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and cloth a family, not having a school or clinic to go to, not having the land on which to grow one’s food or a job to earn one’s living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation”

UN Statement, June 1998
How is Poverty Measured?

Incidence of poverty (headcount index):
This is the share of the population whose income or consumption is below the poverty line, i.e. the share of the population that cannot afford to buy a basic basket of goods. An analyst using several poverty lines (e.g. a) poverty; b) extreme poverty) can estimate the incidence of both poverty and extreme poverty. For non monetary indicators, similarly, the incidence of poverty measures the share of the population which does not reach the defined threshold (e.g. percentage of the population with less than 3 years of education).

Depth of poverty (poverty gap):
This provides information regarding how far off households are from the poverty line. This measure captures the mean aggregate income or consumption shortfall relative to the poverty line across the whole population.

Poverty severity (squared poverty gap):
This takes into account not only the distance separating the poor from the poverty line (the poverty gap), but also the inequality among the poor.

Source: World Bank, Poverty Reduction & Equity: Available at:
Measuring Development

Gross Domestic Production (GDP)
GDP is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs).

Gross National Income (GNI)
GNI is GDP less net taxes on production and imports, less compensation of employees and property income payable to the rest of the world plus the corresponding items receivable from the rest of the world.

Gross National Product (GNP)
GNP is the market value of all the products and services produced in one year by labour and property supplied by the residents of a country. Unlike Gross Domestic Product (GDP), which defines production based on the geographical location of production, GNP allocates production based on ownership.

Gross National Happiness
GNH envisions a person’s basic good nature of kindness, generosity and compassion freed from the repression of selfishness, jealousy, anger, etc. life satisfaction is evolved within five life domains.
Sources of Development

The case of natural resources

[Graph showing correlation between GDP growth and resource dependence]

Sources of Development

The case of Athens and Sparta
http://www.youtube.com/watch?v=kLBRnpr4GFI
## So What is the Lesson From the Past

<table>
<thead>
<tr>
<th>Athens</th>
<th>Sparta</th>
</tr>
</thead>
<tbody>
<tr>
<td>All citizens were equal excluding women and slaves.</td>
<td>Upper classes had all power and privilege. Slaves did all nonmilitary work.</td>
</tr>
<tr>
<td>Education focused on physical and mental skills.</td>
<td>All education focused on military strategies and war.</td>
</tr>
</tbody>
</table>

Percentage of population by educational attainment, age 15+, total, completed secondary

GDP per capita (constant 2000 US$)

Source: World Bank Databank
Relationship between GDP and participation in higher education

Note: In principle, 2008 data, if no data for 2008, then 2006 or 2007.

Individual Rates of Return

Internal rate of return for higher education of OECD countries (%)

‘Push and Pull’
between Education and Development

EDUCATION

SKILLS & COMPETENCIES

VALUES & ATTITUDES

PRODUCTIVITY & SOCIAL CAPITAL

DEVELOPMENT (ECONOMIC & SOCIAL)

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II. What have been policy responses?

1. At the Country Level
   i. Education Reform Trends
   ii. Common Elements of Reform
      • System Alignment
      • The teacher quality challenge
      • ICT in education
   iii. Lifelong Learning

2. UN/UNESCO
Education Reform Trends

Market-oriented approaches:
- vouchers and charter schools
- funding follows the student public ranking of schools

Decentralization/school-based management:
- school councils (incl. parents)
- more budget control at school level

Professional approaches:
- standards for teachers
- standards for students
- teacher development

Management/accountability approaches:
- process controls (school improvement planning, teacher/admin performance appraisal)
- output controls (student testing)

Source: Leithwood and Kenneth A. (1999), *Educational accountability: the state of the art at Fourth Forum of the Network of Associate Schools*
Common Elements of Reform

I - System Alignment

- Learner Characteristics
- Curriculum
- Assessment and System-wide Coherence
- Financing Structures and Policies
- School governance
- Teaching and Learning Processes
- Staff Management Policies
- Human and physical resources
- Teaching and Learning Materials
- Cooperation/collaboration (including international)

II - Teacher quality

III - ICT in education

i. System Alignment

• Strengthening alignment between learning outcomes, curriculum, and assessment.
• Reforming financing structures to support quality and equity in education.
• Strengthening local governance and school leadership.
• Leveraging assessment systems, including:
  • Cross country (PISA, TIMSS, etc);
  • National/sub-national assessments;
  • Classroom assessments
ii. The teacher quality challenge

“Ensuring that teachers are properly trained, resourced and supported is the single most important requirement for raising learning achievement”

EFA Global Monitoring Report 2011
ii. The teacher quality challenge

Lack of Educational Facilities

- Classrooms/bathrooms
- Computers and connectivity
- Libraries/science labs

Lack of Educational Resources

- Textbooks (including multilingual)
- Teaching materials
- Teachers
ii. The teacher quality challenge

Deterrents to Teacher Recruitment

- Teaching is less attractive, mainly because of poor living and working conditions
- As a result, schools have fewer qualified teachers and higher teacher turnover

Overcrowded classrooms, multi-grade schools
No access to the necessary materials
Fewer opportunities for professional development
Overworked and isolated teachers

Source: UN Millennium Project (2005), and Problems and Recommendations Regarding Rural Teachers and Rural Education
iii. ICT in education

Discrepancies in Access to a Computer and Internet at Home

Percentage of students who reported having a computer at home in PISA 2000 and 2009

Percentage of students who reported having access to the Internet at home in 2000 and 2009

Notes: All differences between 2000 and 2009 OECD averages in 2000 and 2009 for 27 countries are statistically significant. OECD averages in 2000 and 2009 include 27 countries. The OECD average in 2009 for 34 countries is 88.7%

Countries are ranked in descending order of p.

Source: OECD, PISA 2009 Database, Tables 1 and 4.
### iii. ICT in education

And This Has an Impact

![Graph showing PISA score points and proficiency levels for various countries, indicating the impact of ICT usage on education performance.](image)


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Paradigm Shift Towards LLL

From

- Sectoral approach
- Control and regulation
- Issue orders, direct students
- Institution-driven
- National curriculum
- Rules and regulations

To

- Multi-sectoral, coordination
- Support and partnership
- Create choices, pathways, inform learners
- Learner-driven
- Recognition & quality control
- Incentives and facilitations
II. What have been policy responses?

1. Countries

2. UN/UNESCO
   i. Education for All
   ii. Education for Sustainable Development
   iii. Global Education First Initiative (GEFI)
   iv. Post-MDG/2015 Discourse
   v. Important Thematic Initiatives
UNESCO’s Mission Statement

“Since wars begin in the minds of men (and women), it is in the minds of men (and women) that the defenses of peace must be constructed.”

(UNESCO Constitution)

“As a specialized agency of the UN system, UNESCO contributes to the building of peace, the alleviation of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information.”

(UNESCO Mission Statement)
Education for All (EFA)

Six EFA Goals
ECCE, UPE, Literacy, Skills Development, Gender, Quality

Main Strategies
• Promoting partnerships
• Mobilizing resources
• Ensuring effective use of aid
• Communication and advocacy
• Monitoring progress
• Capacity building
EFA Coordination Mechanism

Global Level

• EFA Steering Committee
• EFA High Level Forum (HLF)
• Global Partnership for Education (GPE)
• Collective Consultation of NGOs on EFA
• E-9 Initiatives

Regional/Sub Regional level

• Thematic Working Group (TWG)
• South Asia EFA Forum, Pacific Education Forum, SEAMEO,
Education for Sustainable Development (ESD)

- **ESD definition**
  “ESD is a learning process (or approach to teaching) based on the ideals and principles that underlie sustainability and is concerned with all levels and types of learning to provide quality education and foster sustainable human development – learning to know, learning to be, learning to live together, learning to do and learning to transform oneself and society.”
  
  *(UNESCO)*

- **Economic development, social development and environmental protection** are interdependent and mutually reinforcing components of sustainable development

  - **Society** – an understanding of social institutions and their role in change and development
  - **Environment** – an awareness of natural resources and the fragility of the physical environment
  - **Economy** – a sensitivity to the limits and potential of economic growth and its impact on society and on the environment
“Education First” in Asia-Pacific

GEFI, by UNSG

- To address key issues and challenges to
  - further expand schooling
  - increase quality of learning
  - foster global citizenship

- In the face of all the recent changes, what does it take to:
  - provide quality education and learning for all?
  - make a high performing education system?
Post-MDG/2015 Discourse: Education in a New Development Context

Emerging Trends:

• Rapid economic growth
• Globalization and regional integration
• Technological development
• Rapidly changing labour markets
• Shifting geo-politics
• Population pressures (youth bulges in some, aging and more urbanized populations in others)
• Increasing unemployment
• Increased migration
• Growing pressure on natural resources
• Environmental degradation and disasters
Post-2015 Agenda: Implications for Education

• Both EFA and MDG agendas due in 2015
• Beyond 2015, will education feature as prominently as was the case with EFA?
• Taking new contexts and changes into account: What are the implications for education?
  - Pressure of population growth in some countries
  - Rapid changes, thence no longer sufficient training for pre-established job profiles
  - Transversal skills and competencies required in globalized economies and increased labour mobility and migration
  - Potential of ICT for learning
  - Preservation of cultures, values and traditions to become part of education policies
Quality of Education: Examples of UNESCO Initiatives

High-level expert meetings
- Future education systems
- Learning processes and outcomes

Assessment Issues
- Learning Matrix Task Force (UIS/Brookings)
- Network on Education Quality Monitoring in Asia-Pacific (NEQMAP)

Learning to Live Together
- Culture of peace and respect for diversity
- Revisiting Delors report

ICT in Education
- ICT pedagogy integration
- Teacher Education for project based learning and tele-collaboration
- Ministerial forums

‘Transversal Skills’
- Through Education Research Institutes Network (ERI-Net) and other related research

Arts Education & Physical Education/Sports
- Research on how these areas contribute to acquisition of both cognitive and non-cognitive outcomes
III. What are the gaps/challenges?

1. Knowledge Gap
   i. Determinants of Learning Quality
   ii. Teacher Incentives
   iii. Efficacy of Technology in Education

2. Action Gap
Determinants of Learning quality

- Knowledge Infrastructure
- Human and Physical Resources
- Financing Structures
- Development Aid
- Teacher Management
- School Resources and Management

Adapted from EFA Global Monitoring Report (2005)
Barriers to Quality

• **Policies for improved student learning outcomes are not holistic**
  - Scarce resources have frequently been used for expanding systems with insufficient attention to quality improvement

• **High-stakes examinations**
  - Excessively focusing on exams, ignoring aspects of curriculum not tested: Teaching for the test

• **Lack of pro-poor policy in the face of wide disparities in learning achievement within and across countries**
  - Teacher policies (teacher training, recruitment, support, incentives, etc).
Teacher Preparation

Duration of teacher training varies according to countries

**Figure 11:** Years of pre-service teaching training required in selected countries by level of education taught, 2005–2010

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary education</th>
<th>Lower secondary education</th>
<th>Upper secondary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>China*</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Korea, Rep. of</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3</td>
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<tr>
<td>Mongolia</td>
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<tr>
<td>Philippines</td>
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<td>Thailand</td>
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<td>Australia</td>
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<td>Samoa</td>
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<td>3</td>
<td>2</td>
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<tr>
<td>Nepal</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Bangladesh</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

**Note:** China’s pre-service training requirement for primary is three to four years, while Lao PDR for upper secondary is four to five years. The minimum requirements for each country are used in the figure.

Teacher Preparation Programme

- Length of initial training and level of training depends on level of development
- General and specialist training (subjects, professional area)
- Practical teaching experience, induction period
- Consecutive or concurrent programmes
## Teacher Incentives

### Teacher Motivation

### Table 13: Teacher Rewards and Incentives in Southeast Asia

<table>
<thead>
<tr>
<th>Rewards/Incentives</th>
<th>Salary Increase</th>
<th>Certificate of Recognition</th>
<th>Scholarships/Training</th>
<th>Promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Cambodia</td>
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<td>Indonesia</td>
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<td>Lao PDR</td>
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<td>Malaysia</td>
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<td>Myanmar</td>
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<td>Viet Nam</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Source: Adapted from SEAMEO-Innotech (2010)*
Teacher Incentives

Compensation and Benefits

1. Teachers’ salaries
2. Annual increment (standard or performance-based)
3. Pension or EPF or social security
4. Other benefits: housing loans, car loans, computer loans, medical benefits, etc.
Teacher Incentives

Special provisions for teachers in rural or remote areas

- Decent housing
- Limited period of service
- Critical/hardship allowances
- Special home leave
Efficacy of Technology in Education

Education policy makers and decision-makers frequently have little or no information about effectiveness of ICT in schools or teacher education programs

Jonathan Anderson
ICT Transforming Education: A Regional Guide
UNESCO, 2010
Efficacy of Technology in Education

Observed performance difference in science scale associated with years using a computer

Length of time students have used a computer and mean performance in PISA science scale


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Students’ access to a computer and frequency at school was not linked with their performance in mathematics.

A positive effect was observed for a small group of students who used the computer in problem-solving activities.

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III. What are the gaps/challenges?

1. Knowledge Gap

2. Action Gap
   i. Governance
   ii. Finance
Action Gap

Governance

Planning

Monitoring & Evaluation

Coordination

Implementation
Financing Gap

Unsteady Public Resources Devoted to Education

Public Expenditure on Education as % of GNP

Source: EFA GMR

- Few countries spend anywhere near 6% of GNP on education
Most donors reduced aid as a share of their national income in 2011

Official Development Assistance as percentage of gross national income, 2010-2011, OECD-DAC donors

IV. Ways Forward

- Heuristic Approaches to Planning
- Investment in “Policy Practitioners”
- Joint Advocacy/Actions in-and Trans-Member States
Thank You