Transformation of Research in the South: Policies and outcomes – *An Indonesian perspective*

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Pic: http://digitalistmag.wpengine.netdna-cdn.com/files/2016/01/277889_l_srgb_s_gl.jpg

Pointers

- Introduction and context:
  What transformation?
- Transformation of the role of research in development
- Transformation of collaborations in research
- Research and Agenda 2030
- Notes on Evidence-based policy
- Questions and reflections

Global context

- Today our world is n illion people, and this number will re
- World GDP i ll exceed USD $200 trillio
- 4 billion l y (often called pe nalad, 2010)
- CO_2 emiss ing to 50 GT in 2050
- All parts of t ease of average temperature ab ge of climate pattern.

Global context

- **In our world in wh… …le live today …**
- Two of five h…
- Three of fi…

but …

- One of …y
- One bil… …eat
- 1.5 billi…
- 2.5 billio…
- Gini ratio a… …een the haves and the have… …countries in the world – particular… …eloping ones
- Instances of conflicts and terrorisms increase

National context: Indonesia

- Total population: 254 million
- GDP per capita $1,865.85 (2014)
- Gini coefficient increased from 0.37 (2012) to 0.41 (2014)
- Size of region: 1.9 million km^2 (land); 8.1 million km^2 (water)
- 17,504 islands
- 34 Ministries
- 34 provinces; 532 cities/municipals; 6,994 sub-districts , 72,944 villages
- 9,655 Primary Health Centers
- New democracy, decentralisation
- Direct presidential elections – New President
- Direct regional head elections

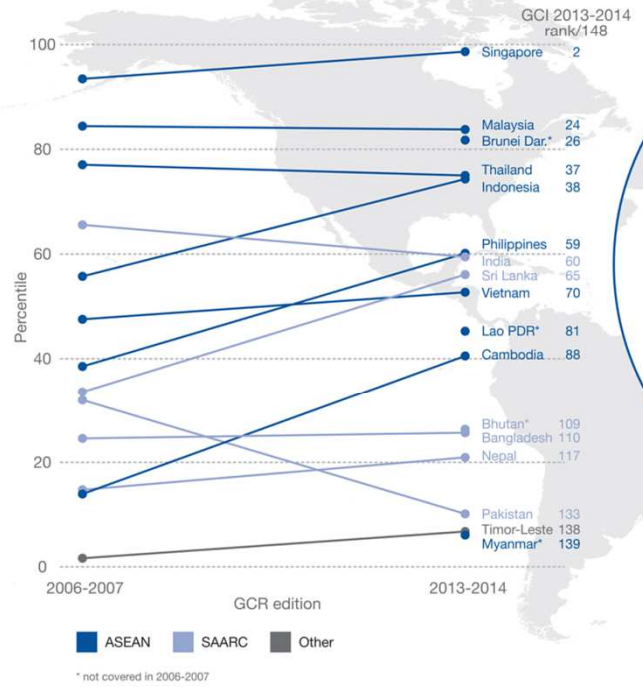
National context: Indonesia

The Global Competitiveness Report 2013–2014
South and South-East Asia

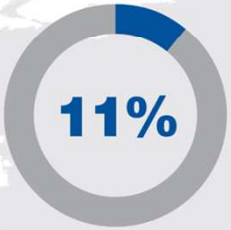
WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD

The competitiveness divide runs deep between South and South-East Asia. Competitiveness levels and trends are overwhelmingly better in South-East Asia than in South Asia. Led by Singapore, the five best performing are all members of ASEAN (the Association of Southeast Asian Nations), well ahead of most countries of the South Asian Association for Regional Cooperation.

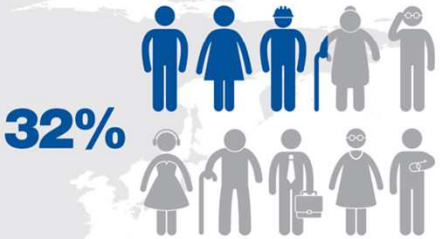
Changes in the Global Competitiveness Report ranking 2006-2013 – South and South-East Asia



% World GDP (PPP)



% World Population (2011)



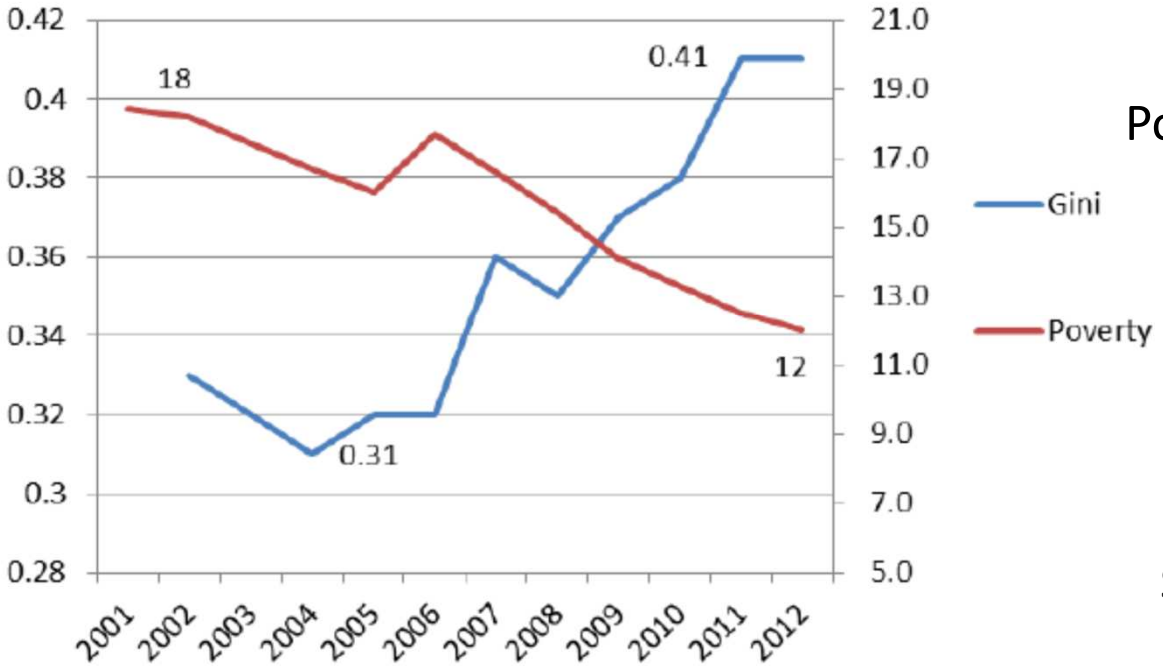
The Global Competitiveness Report ranking 2013-2014

Top 5 in South and South-East Asia

Sources: World Economic Forum, Global Competitiveness Report 2013-2014; International Monterary Fund, World Economic Outlook April 2013; World Bank, Word Development Indicators; authors' calculations. Note: Afghanistan and Maldives, both SAARC members, are not covered by the GCI.

Source: Global Competitiveness Report (2014)

National context: Indonesia



Indonesia 2001-2012:
Poverty down, inequality up

Source: Tadjoeddin et al (2014)

Global Development Agenda

Transforming our world: The 2030 Agenda for Sustainable Development

Sustainable Development Goals

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls
- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts*
- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

What transformation: A conceptual starting point

- The discourse on the extent to which STI have helped or hindered development has caught the attention of the public, and the implications of scientific and technological progress towards societal development are now under public scrutiny (Freeman, 2011, Lundvall, 2011, Nelson, 2011).
- However, with system of innovation largely focused on market economy and other related problems (Lundvall, 1992, Lundvall, 2011), the challenge for STI to address these developmental problems has become greater.
  - Technological progress needs to contribute to development by finding ways and means to eradicate poverty, bridge the gap of inequality, promote social inclusion (e.g. Betts and Gaynor, 2010), and address environmental degradation (UNEP, 2012).
- New direction: taking all the more recent knowledge accumulated about the multiple sources of knowledge on STI and systems of innovation (Nelson, 1993).
- Following Rogers (1995), understanding of innovation adoption and diffusion: how the appropriation of innovations has impacted both the innovation and the users or adopters and how this impacts to development policy and practices.

What development? A conceptual starting point

- The underlying assumption: development is linked to the insertion in a market economy, and the underlying value is that this insertion provides people more than mere survival (e.g. just enough to eat and live in a slum).
- Development inscribes people in an accumulation process – economically, environmentally, socially and politically.
    - People progressively can improve the quality of their environment, invest in a better livelihood, acquire more sophisticated equipment, have easier access to means of working, as well as benefit from wider participation in politics and decision making processes – through innovations.
- This means research for development are about research whose outcomes are capable of raising capacity of people to better and more effectively improve their livelihoods (i.e. development purpose) as well as to exercise their civil and political rights (i.e. advocacy purpose) (see, e.g. Edwards and Hulme, 1992, Clayton et al., 2000, Edwards, 2004, Keane, 1998, Edwards and Sen, 2000, Eldridge, 1995).

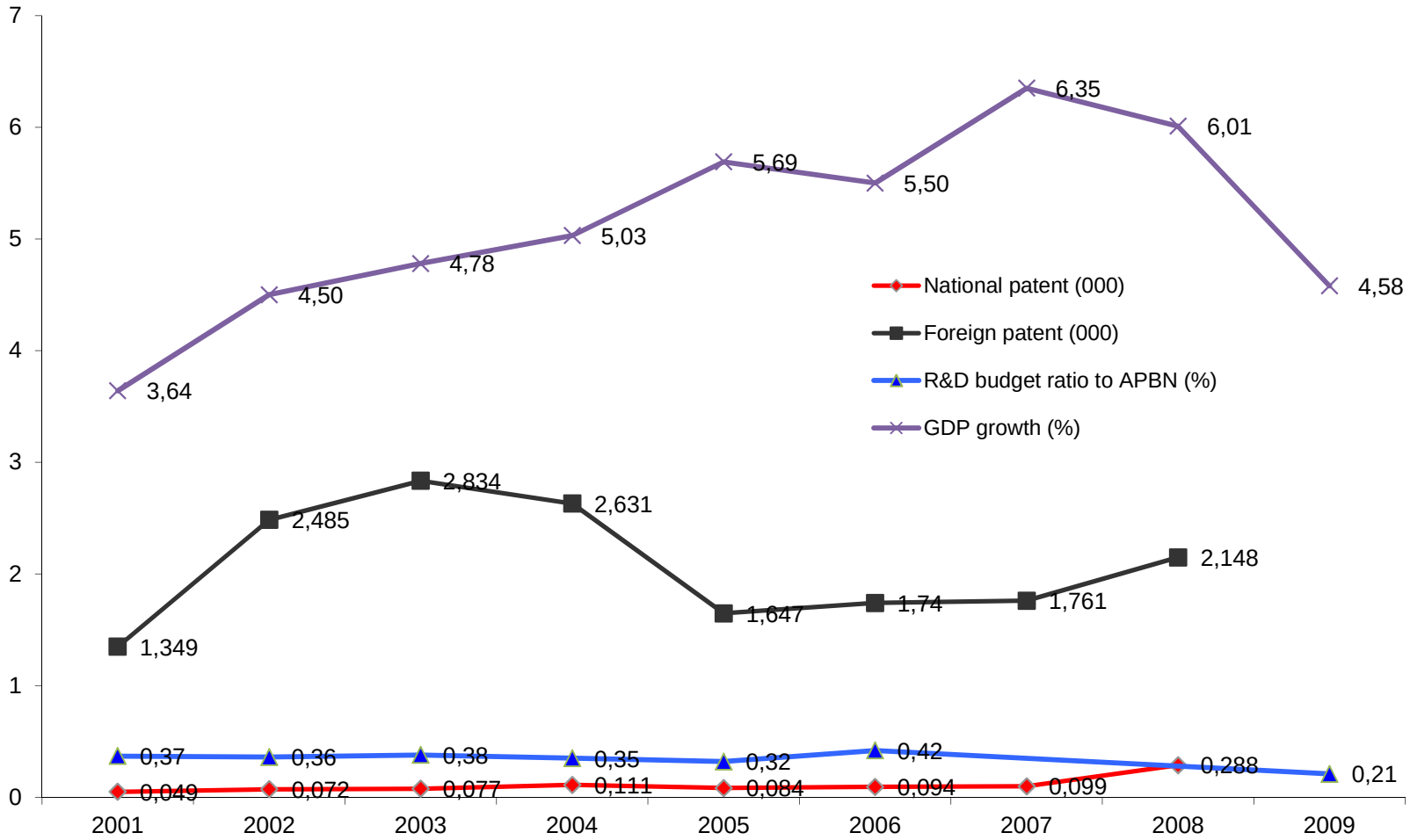
Research in, and for, development

The most visible challenges : uncertainties the people face, e.g.

- People lose their lands because there is no historical proof of their ownership, or many children who are born without birth certificates are excluded from state's service → **'legal uncertainty'**.
- Prevalence of communicable and non-communicable diseases, which drives people down: **'health uncertainty'**
- Theft, violence, or inability to circulate freely: **'security uncertainty'**.
- Poverty and inequality becomes worse when **'education uncertainty'** is not addressed properly as it degrades the society as a whole.
- Multiplication of intermediaries that take advantage of the two difficulties: physical (e.g. transportation means) and intangible (e.g. information about the market and prices): **'communication or information uncertainty'**.
- etc.

Transformation of Research in Development

Establishment of the Indonesian Science Fund



Source:

Ratio of ST& RD budget: Pappiptek-LIPI and BPS,1996-2007; Patent: Minst of Law & Human Rights (2010)

Transformation of Research in Development

- The amount is limited and the fund is not easy for the researchers to access. Let alone, funding research is still seen as a high economy cost for investment.
- No impact or outcome assessment yet in place at university level. Even if literally applied, the 'economy of scale' is difficult to calculate.
- Over the past two years, the allocation for research fund in the state budget has indeed increased, but not significantly.

	2009	2013
GERD	IDR 4.72 trillion	IDR 8.09 trillion
GDP	IDR 5,613 trillion	IDR 9,083 trillion
Ratio GERD/GDP	0.08%	0.09%

Fig. **Gross domestic expenditure on research and development (GERD)** in 2009 and 2013
Center for Science and Technology Studies (PAPPIPTEK) at the Indonesian Institute of Sciences (LIPI)

Establishment of the Indonesian Science Fund:

- Inter ministerial responsibility: Minst. Finance; Minst. Research & Higher Education, Indonesian Academy of Science.
- Endowment fund for education mandated by constitution: 20% of state budget
- Established by new government, under Presidential Regulation

Transformation of Research in Development

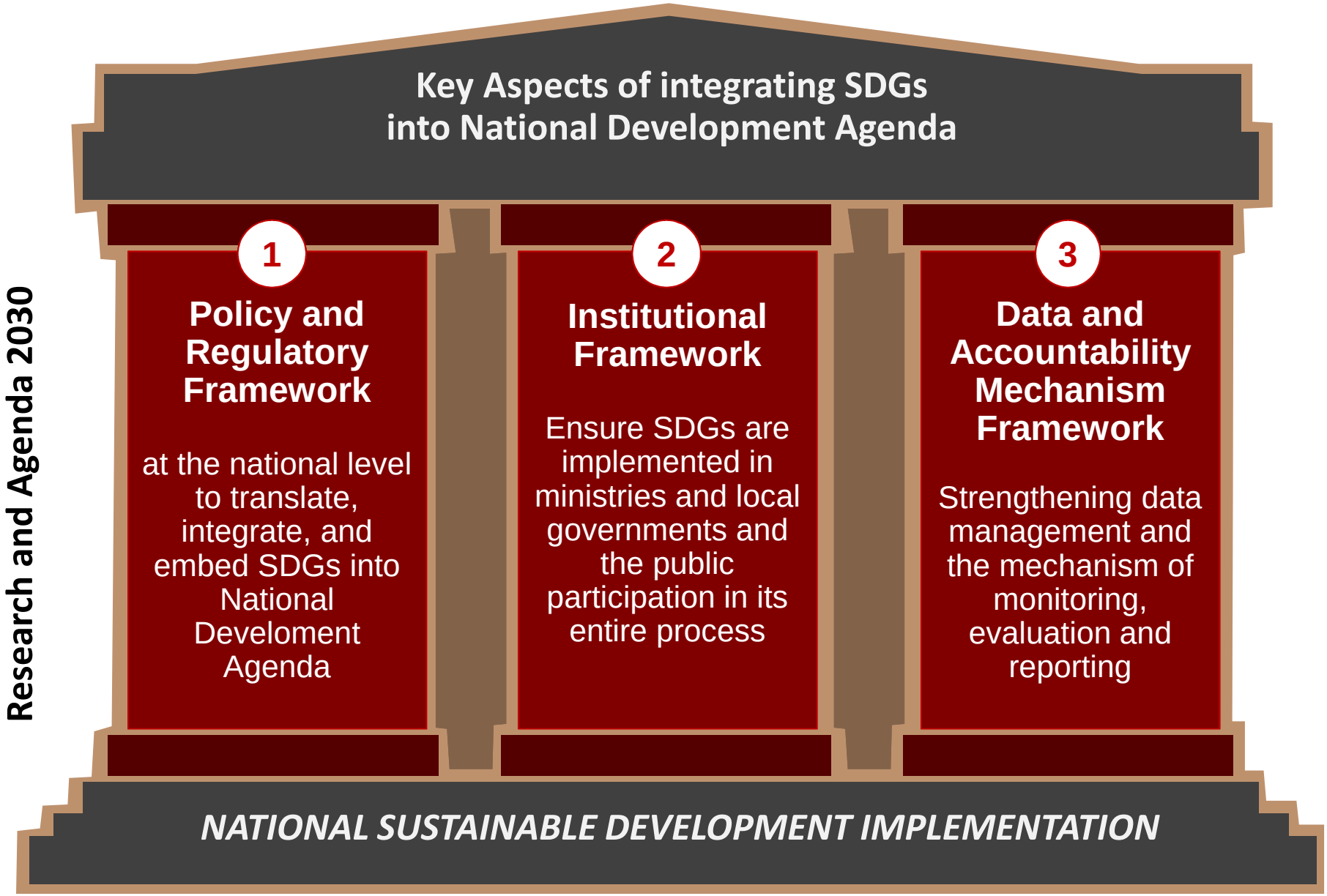
Development Focus and Priorities: Need for research

EXECUTIVE OFFICE OF THE PRESIDENT
REPUBLIC OF INDONESIA

To enable the President to directly monitor at the level of projects for priority activities

Priority Programmes: Focus	Priority Programmes: Constitutional Mandate	Priority Programmes: Focus	Other development areas	Other development areas
4	3	1		
1. Food	5. Health	8. B reaucracy eform	11. Trade	20. Sports
2. Energy	6. Education	++	12. Village	21. Human Rights
3. Maritime	7. Poverty Reduction	9. Te risr	13. Environment	22. Migrant Workers
4. (Transportation) Infrastructure		10.Industry	14. Technology	23. Culture and Arts
			15. Children and Women	24. Judicial System
			16. Social Exclusion	25. Drug Misuse
			17. Laws and Regulation	26. Corruption Eradication
			18. International	27. National Defense and Securities
			19. Border Areas	

Transformation of Research in Development



Transformation of Research in Development

New Programmes and Initiatives

- Open Government Partnership
  - Accountability of development programme
  - Openness in government management
  - Widening public participation in decision making
  - Innovation for government's service delivery
- One Data (data.id)
  - Official data for decision making
  - Indicators of development outcomes
- One Map
  - Planning
  - Conflict resolution
- Big Data for Development
- Bureaucracy Reform
  - Quality service delivery
  - Reformers at the driving seat
- … and few others

Transformation of Collaborations in Research

CIVIL-SOCIETY/THIRD SECTOR

- Critics to the 'triple helix' (Etzkowitz & Leydesdorff, 1999; 2000)
- Knowledge is also produced in the third sector
- 'Jugaad' innovation

A case: JALIN MERAPI – Volcano activities monitoring by civil society

Community Radio + Two-way Communication Radio + CCTV + Fixed Telephone+ SMS Gateway + Website + Instant Messenger + Live Audio Streaming + Social Media

Transformation of Collaborations in Research

Connecting 5 community radios in Mt. Merapi's slope with online media, as disaster awareness and preparedness media in normal situation. When crisis occurs, JALIN Merapi functions as early warning system and coordinating stakeholders (local community members, volunteers, donors, media, etc.). In 2010, mainstream media used JALIN Merapi's information as the main reference on Mt. Merapi's eruption.

Transformation of Collaborations in Research

Multistakeholder ‘action research’ : PENCERAH NUSANTARA

- Deployment of voluntary, team-based healthcare service at the most remote areas of Indonesia to be integrated with the local system
- Involvement of government (central and local), private sector, civil society, media, academics.
- Data collection and subsequent analyses over time
- Started 2011, in 7 locations, with 35 volunteers

Outcomes:

- Improvement of health and well being in the locations of deployment
- The model is adopted as the government’s priority in 2015, in 120 locations, with nearly 1,000 health workers

Transformation of Collaborations in Research

ASEAN 'Research Area'

- A consequence of ASEAN integration (social, economy, politics)
- Following the integration of ASEAN market (ASEAN Economic Community), despite challenges and difficulties especially with flow of goods, services, and workers
- Generally seen as beneficial
  - Strengthen collaboration (joint research, publication, etc.)
  - Widening research space – deepening research fields
  - Excelling ASEAN research
- .. With some structural challenges
  - barriers in researchers mobility
  - Unequal quality of research centres/universities
  - Incompatible incentive systems for researchers
  - .. and huge variance in researchers' competence
- Needs compatible regulatory and institutional frameworks to facilitate collaborations

Research and Agenda 2030

Transforming our world:
The 2030 Agenda for Sustainable Development (UN, 2015)

- Do the Agenda provide research imperatives?
- Do the Agenda indicate research direction or priorities?

Research and Agenda 2030

What is in the Agenda?

Research and Agenda 2030

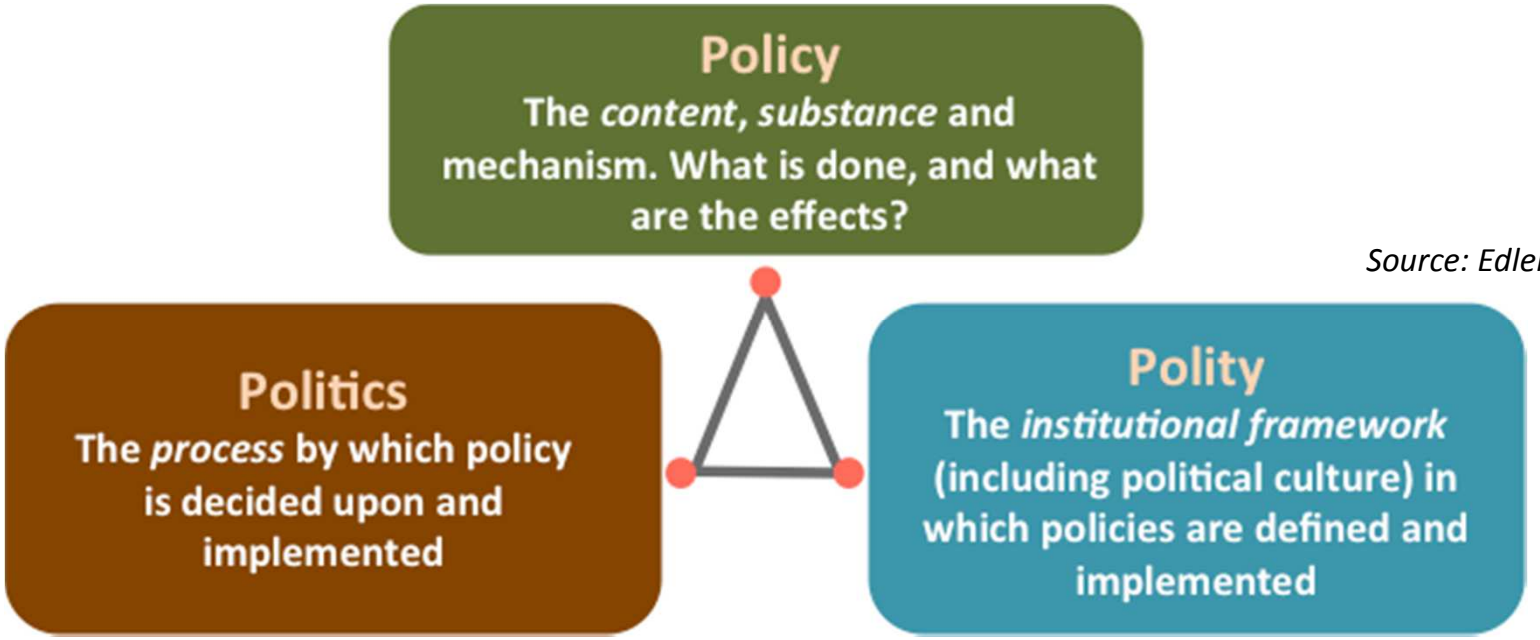
Implications to research

- Agenda 2030 seeks to address today's and future's world problems concerning well-being, progress, and environment
  - New research agenda
  - Anticipative, 'foresight' (shaping, instead of predicting, the future)
- Agenda 2030 is participatory in its inception and in implementation
  - Collaborations of private sector, government, academics, civil society.
  - From inter-governmental process to inter-community research
- Agenda 2030 distinguishes the 'what' (*targets*) and 'how' (*means of implementation*) (not always clear about the 'why')
  - Multidisciplinary, action-oriented
  - Resource management
- Agenda 2030 is a global political commitment
  - Some focus on the development policy and planning
- Agenda 2030 relies on innovations and data for accountability

Rethinking ‘evidence-based policy’

- Relation between Research *and* Policy: *Non sequitur*?
  - Research : intellectual moments
  - Policy: political moments
- Research is often assumed to have positive links with development –both policies and practices --> Can this assumption be held true?
- Policy: Political space or epistemic domain?

Few questions for reflections



Source: Edler 2008

To what extent does research contribute to the policy making process?

- How can research be influential to the **policy** (content, substance, mechanism)?
- (How) can research(ers) influence **politics**?
- (How) can research provide, or become, **polity**?

Where to start: Platform for exchanges?

- Enabling conditions for intellectual exchanges
- Opportunities for accessing policy space
- Knowledge ‘management’ and repository of best/good/working practices
- Policy support? E.g. Research to Policy

Coffee does matter!

Thank you

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