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Ministry Of Science and Higher Education



Evidence Informed Policy Making: Ethiopian Perspective

North Eastern Africa Workshop Series on the Role of Science in
Assisting Regional Policy Development

Afewerk Kassu, State Minister
Ministry of Science and Higher Education

October 28, 2019
Addis Ababa, Ethiopia





Content

1. The Disparity of World by Income (Global, Africa): Why the big difference?
2. Ethiopia: vision to become middle income country by 2025
3. MoSHE: New Ministry – New Moves
4. Remarks



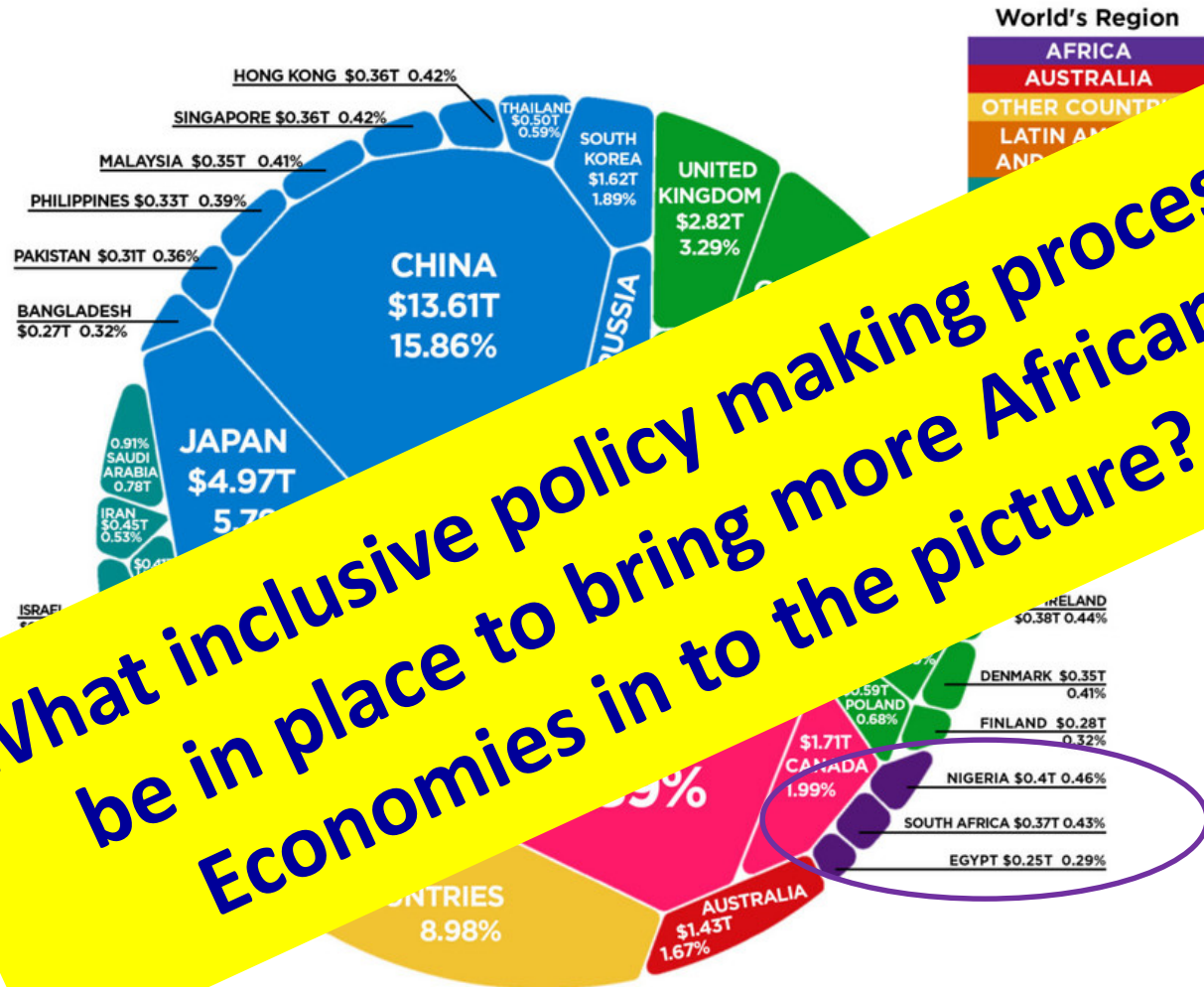


The Disparity of World by Income (Global, Africa): Why the big difference?





The \$86 Trillion World Economy in One Chart



What inclusive policy making process
be in place to bring more African
Economies in to the picture?

Article & Sources:

<https://howmuch.net/articles/the-world-economy-2018>
<https://databank.worldbank.org>



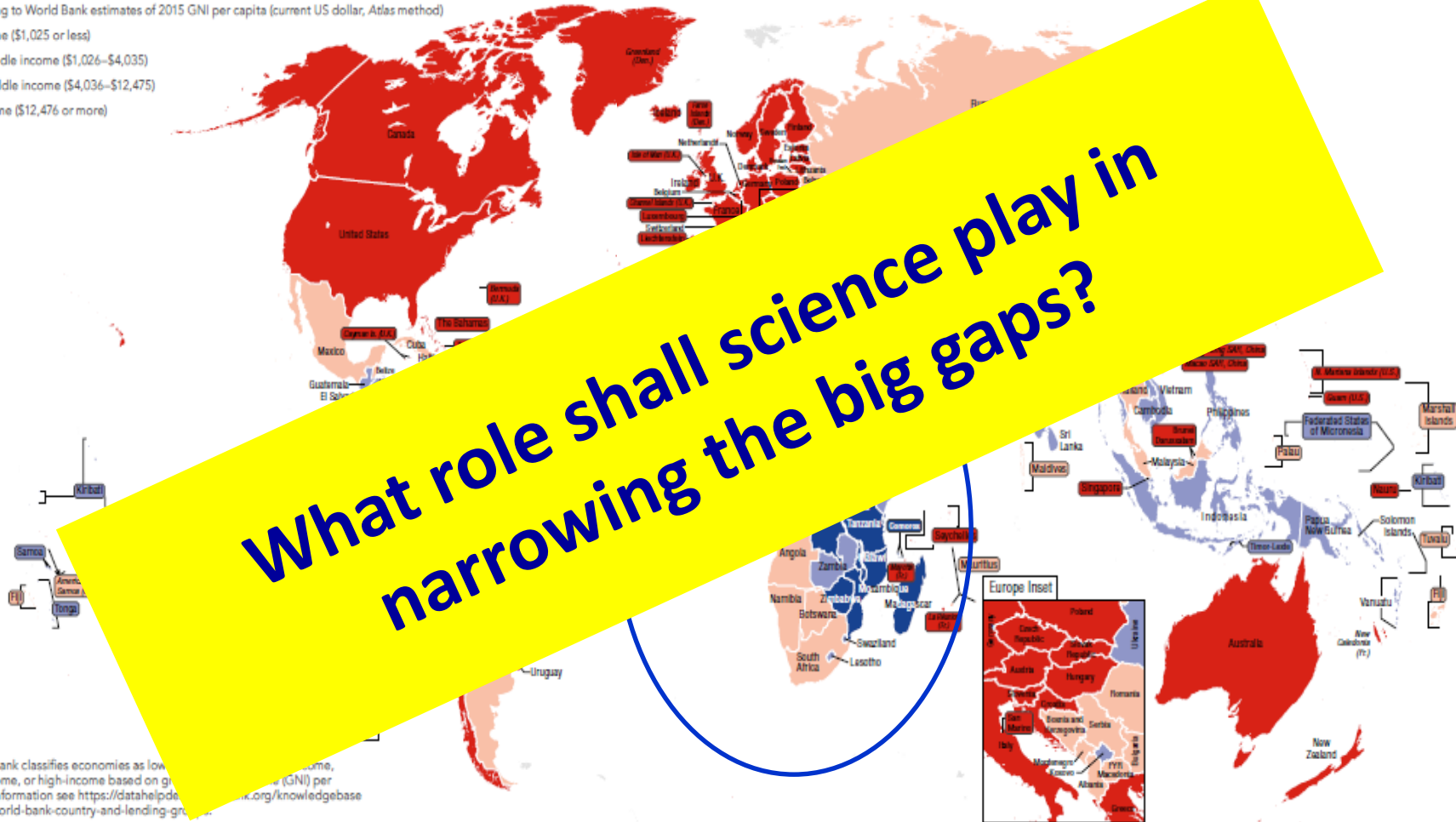


The World By Income – FY2017

The world by income, FY2017

Classified according to World Bank estimates of 2015 GNI per capita (current US dollar, Atlas method)

- Low income (\$1,025 or less)
- Lower middle income (\$1,026–\$4,035)
- Upper middle income (\$4,036–\$12,475)
- High income (\$12,476 or more)
- No data



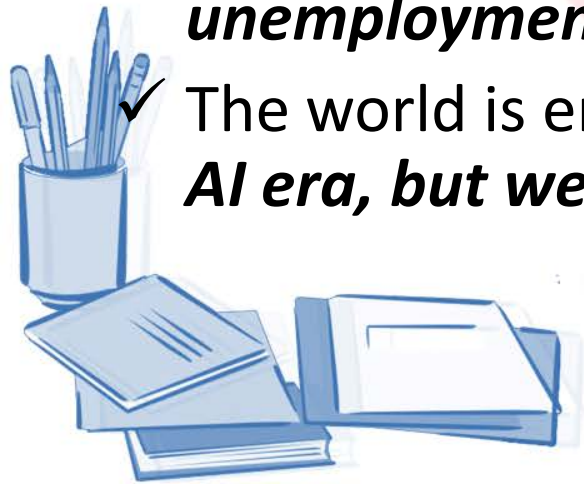
Note: The World Bank classifies economies as low income, lower middle income, upper middle income, or high income based on gross national income (GNI) per capita. For more information see <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>





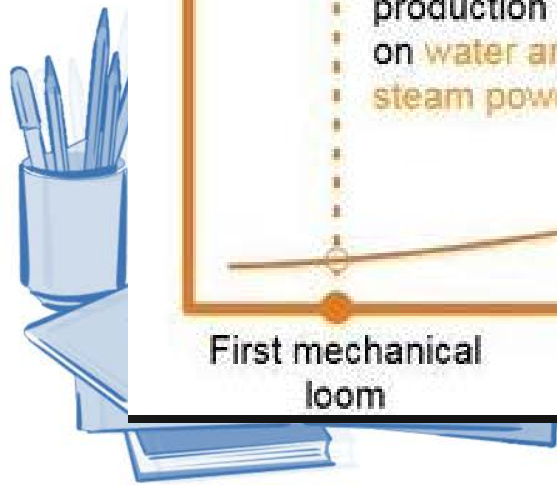
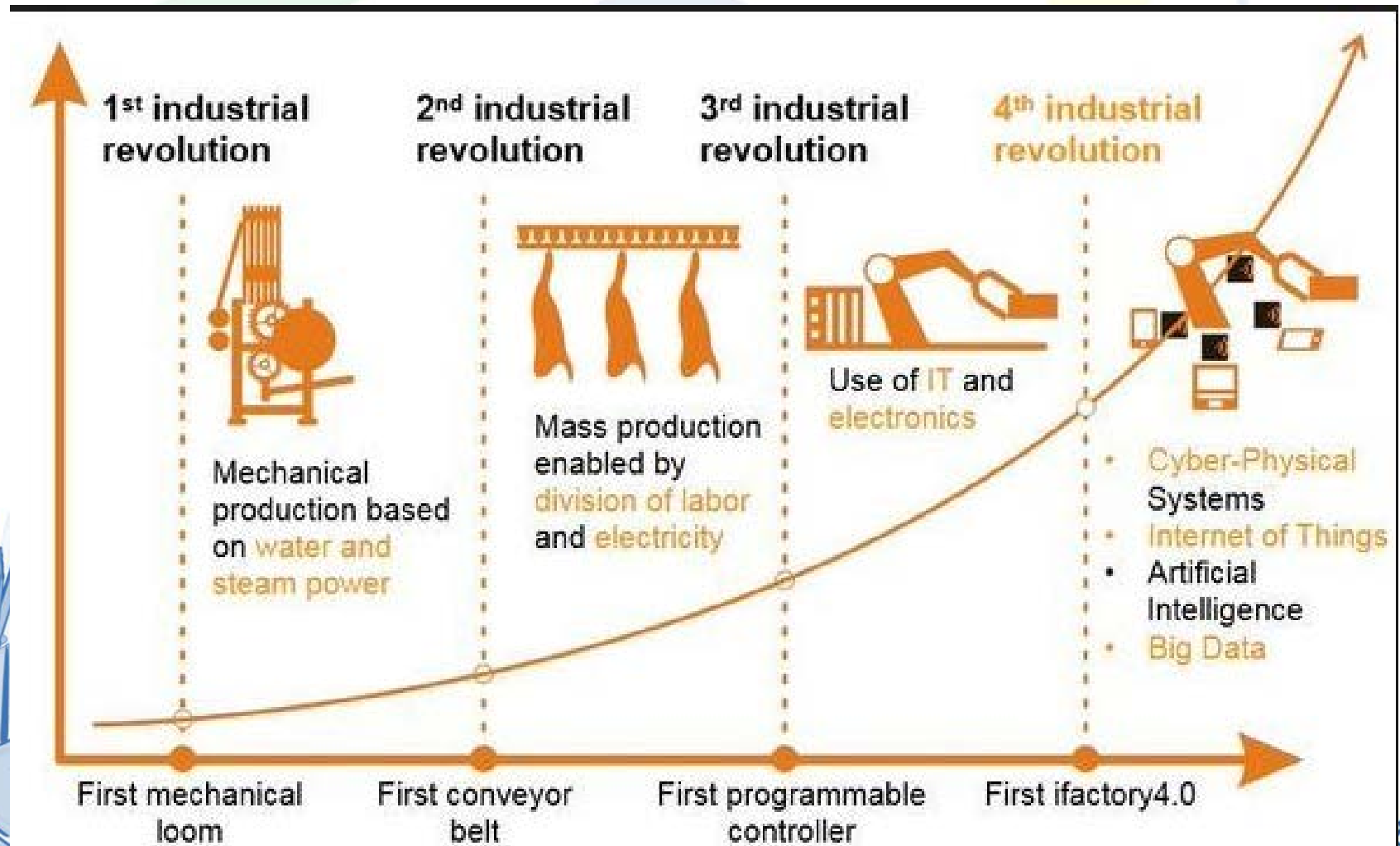
Difficult Pill to Swallow

- We Africans must admit and confront **root causes** for our lagging economies
 - ✓ We operated under ***top-down policy making*** approach for too long
 - ✓ Our development has dragged comparatively
 - ✓ Our citizens remain ***impoverished***
 - ✓ Our resources are ***misused, abused or unused***
 - ✓ Our population is exploding resulting in high ***youth unemployment (420 million Youth)***
 - ✓ The world is entering the fourth industrial revolution - ***the AI era, but we still toil in subsistence farming***





Industrial Revolutions: Where is Africa? How can Science help?





Must adopt new strategy

- ✓ Increase our *knowledge and social capital* (African Union data)
- ✓ Invest in *science, technology and innovation* (STIP Review - UNCTAD)
- ✓ Involve *expert professionals* (Science Academies; Professional Associations; Think tanks;
- ✓ Increase opportunities for youth *jobs* (ASET, Innovation hubs, Tech Jobs, etc)





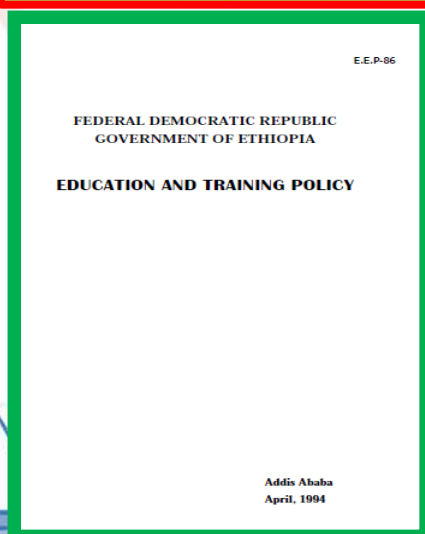
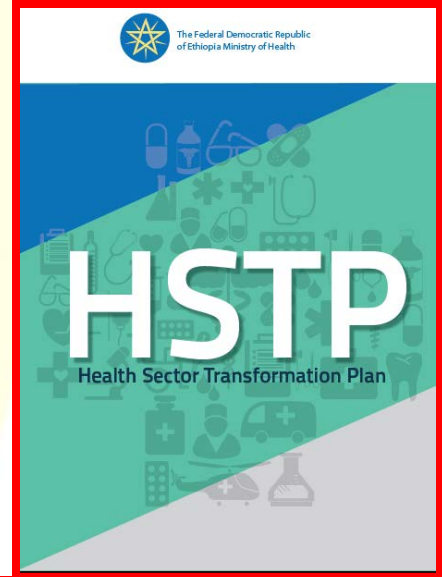
Ethiopia: vision to become
middle income country by 2025



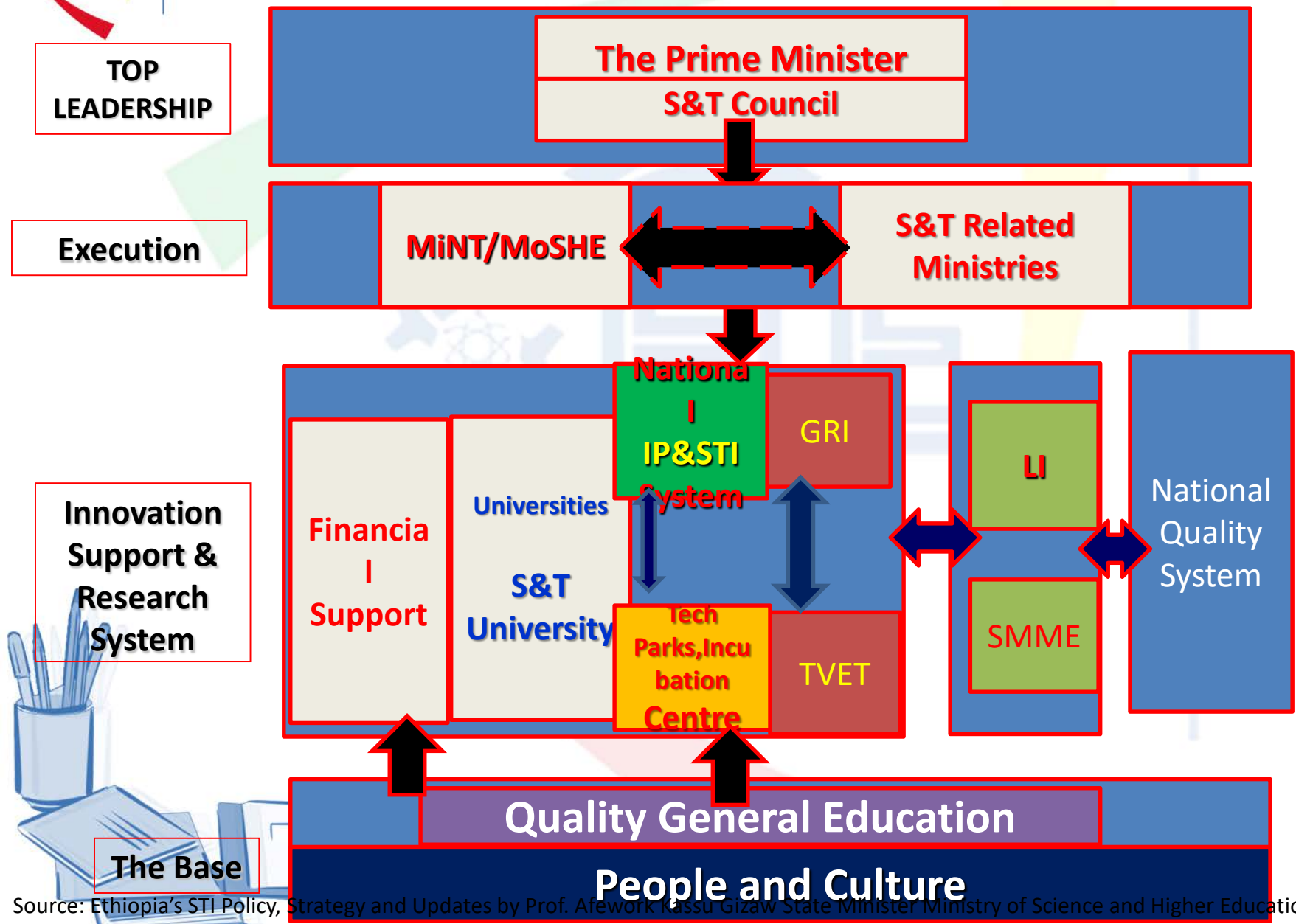


Ethiopia: Science and Policy Context

- Education and Training policy
- STI Policy and Strategy
- GTP – II
- HSTP
- STISA-2024
- UN SDGs



The STI System of Ethiopia



GTP Priorities vs SCIENCE

- **Agriculture**
- **Health**
- **ICT**
- **Energy**
- **Manufacturing**
- **Water/Irrigation**
- **Mining**
- **Tourisms**

- **Agro-Processing**
- **Leather/Textile**
- **Foods/Beverages**
- **Metals**
- *Pharmaceuticals*
- **Chemicals**
- **Construction**
- **Inputs**





Evidence Informed Policy Making

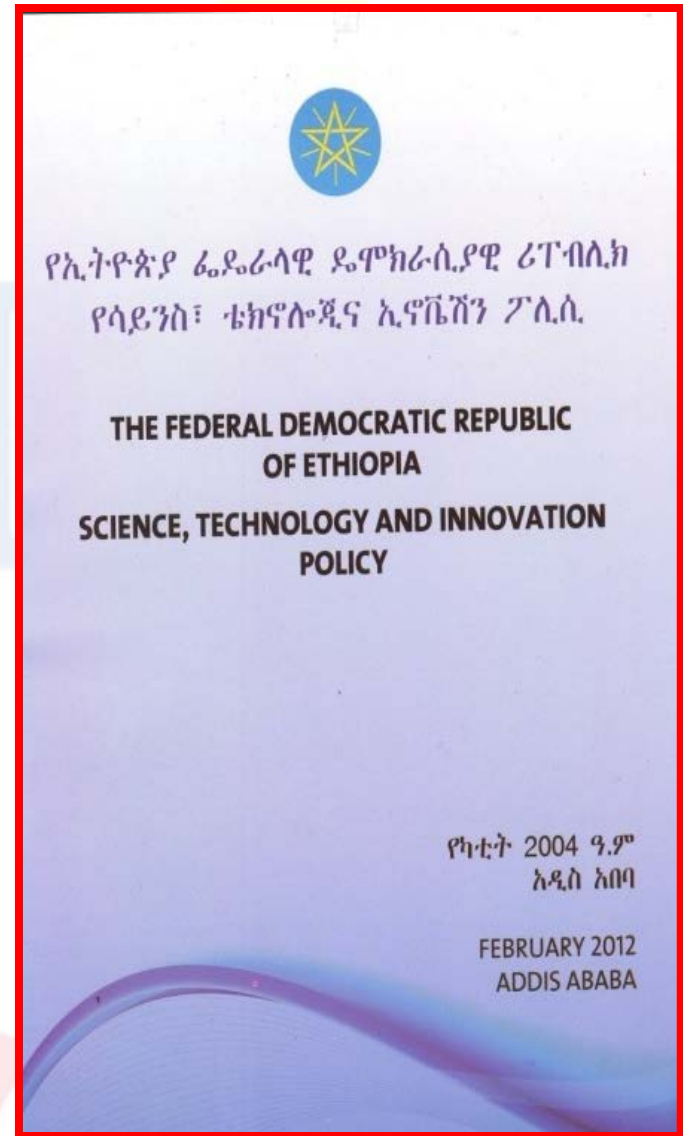
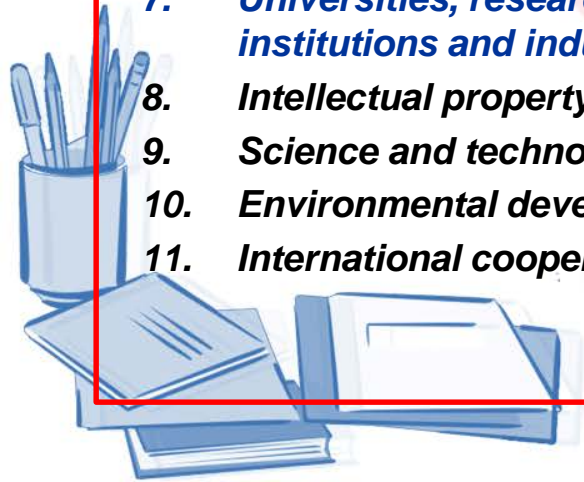
- Examples: Studies by sectoral ministries in collaboration with national and international bodies
 - MoH – Health Policy
 - MoST/MiNT – STI Policy
 - MoFA – Foreign Policy,
 - MoE/MoSHE – Education and Training Policy





The FDRE STI Policy: an example of evidence informed policy making

- Based on the national STI problem analysis and assessment of the characteristics of countries selected as benchmarks for their best practices, **eleven critical policy issues** are identified.
 1. *Technology Transfer,*
 2. *Human resource development,*
 3. *Manufacturing and service providing enterprises,*
 4. *Research,*
 5. *Financing and incentive schemes*
 6. *National quality infrastructure development,*
 7. *Universities, research institutes, TVET institutions and industries linkage,*
 8. *Intellectual property system,*
 9. *Science and technology information,*
 10. *Environmental development and protection, and*
 11. *International cooperation.*





Example 2: Education and Training Roadmap and Policy

Ethiopian Education Development Roadmap
(2018-30)

An integrated Executive Summary



Ministry of Education
Education Strategy Center (ESC)

Draft for Discussion

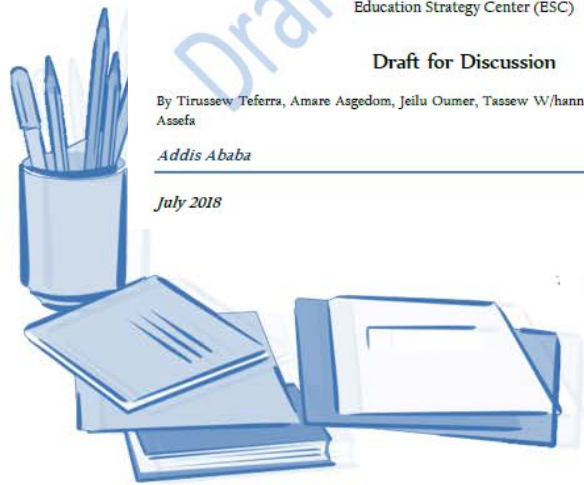
By Tirussew Teferra, Amare Asgedom, Jellu Oumer, Tassew W/hanna, AkliluDalelo and Berhannu Assefa

Addis Ababa

July 2018

- Pre-primary
- Primary
- Secondary
- TVET
- HE

- *Evidences Collected by various mechanisms used to develop the roadmap and draft policy*
- *Inclusive discussions involving intellectuals, leadership, practitioners, citizens, etc*





MoSHE





Mandates of MoSHE

Proclamation No. 1097/2018: Definition of Powers and Duties of the Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation

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FEDERAL NEGARIT GAZETTE
OF THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

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25th Year No.8
ADDIS ABABA 29th November, 2018

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Content

Proclamation No.1097/2018

Definition of Powers and Duties of the Executive
Organs of the Federal Democratic Republic of
Ethiopia Proclamation.....Page 10634

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PROCLAMATION NO.1097/2018

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A PROCLAMATION TO PROVIDE FOR THE
DEFINITION OF THE POWERS AND DUTIES
OF THE EXECUTIVE ORGANS OF THE
FEDERAL DEMOCRATIC REPUBLIC OF
ETHIOPIA

26. The Ministry of Science and Higher Education

1. The Ministry of Science and Higher Education shall have the powers and duties to:

- a) ensure the expansion of higher education; oversee the sector;
- b) undertake and implement strategies that seek to synchronize higher education with the country's overall developmental policies and sectoral specific developments;
- c) design strategy and upon approval follow up the implementation of the country's technical and vocational education and training;

d) design strategies to augment higher education and technical and vocational education institutions' capacity in basic scientific studies and research; implement same; device opportunities for operationalization of scientific studies and research results;

e) create conducive environment for technology development and operations by facilitating linkages and coordinated working procedures between higher education institutions and the industry sector;

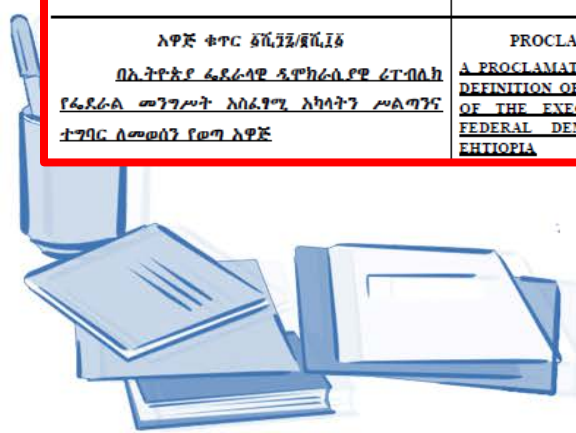
f) prepare higher education curricula framework;

g) set standards required for higher education and technical and vocational education institutions; follow up the delivery of appropriate education and training in these institutions

h) follow up the performance of state-owned higher education institutions;

i) ensure that the implementation of student admissions and placements in higher education institutions are equitable;

2. The powers and duties given by provisions of other laws currently in force to the Ministry of Education in relation to matters pertaining to higher education and technical and vocational education; and to Ministry of Science and Technology pertaining to science are hereby vested in the Ministry of Science and Higher Education.

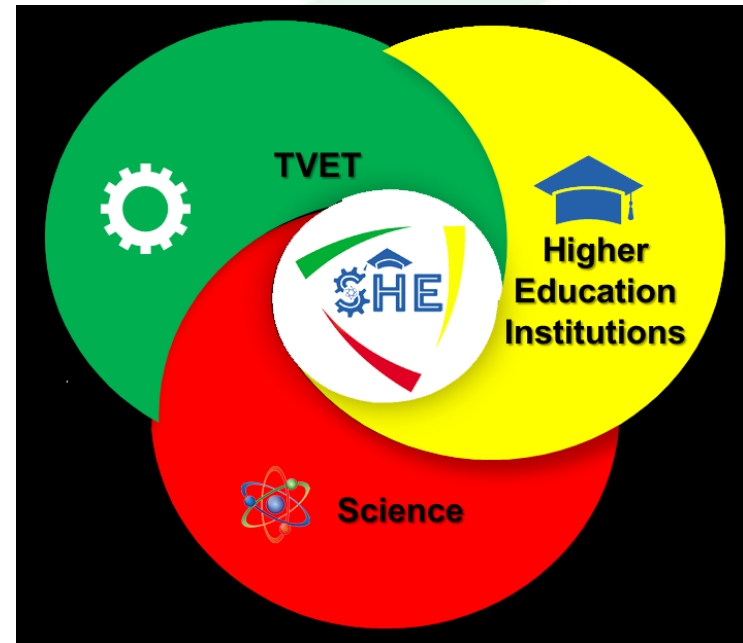




Pillars of MoSHE

- The Federal Government established MoSHE putting **three major pillars** together:
 - **Higher Education** (i.e., Universities)
 - **Science** (generation and application of knowledge and technology)
 - Technical and Vocational Education and Training (**TVET**)

- Each pillar addresses critical issues that contribute to **social transformation and economic development**.





Reporting Institutions of MoSHE



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Ministry of Science and Higher Education



50 public & 201 private HEIs

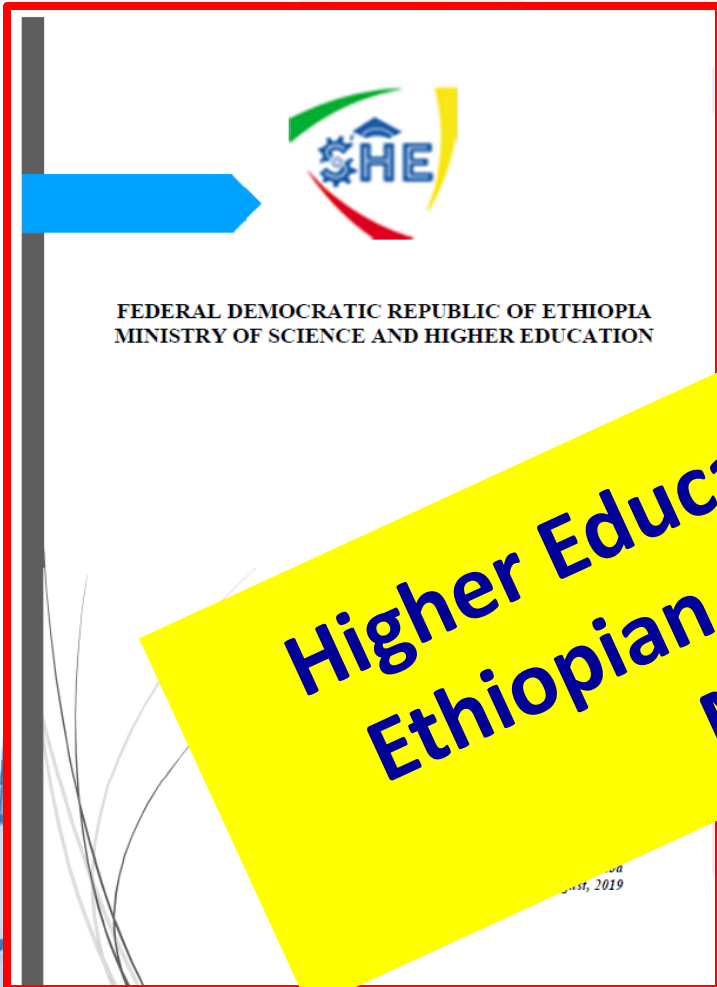


1622 public & private TVET Colleges





Strategic Plan of MoSHE: 2019 - 2025



Strategic Issues/Trends

1. Access and equity
2. Quality
3. Innovation and research
4. Financial and human resources
5. Accountability and results-based leadership, governance and management
6. Internationalization and global development
7. Digitalization and research findings

**Higher Education Strategy Center,
Ethiopian Academy of Sciences,
MoSHE experts**





MoSHE Agenda to transform Science and HE



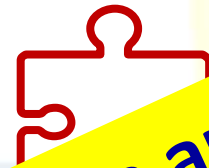
Alignment with the Economy, community engagement



Accountability



Resources



Primary and Secondary Data and evidences from various sources; Diverse stakeholders, intellectuals, professional advisers, being involved.



Work
Educ

Modern Educational Standards

Teacher and Leadership Training



Education and Research Quality, Relevance





Areas of Cooperation and Collaboration Interest

- **Cooperation in the areas of HE:** Ethiopian universities can work with those in other countries in diverse areas including

1. Development of curricula
 2. Joint programs and projects
 3. Joint research
 4. Training and capacity building of Technical Assistants
 5. Student and staff exchange
 6. Structuring the curriculum
 7. Joint conferences and symposiums
 8. Joint learning and research culture
- Long-term training for leaders and professionals of higher education
- Scholarship grants for academic and research staff
- Furnishing libraries, laboratories and workshops

Inclusive and collaborative

Outcome: Improved quality of education in HE





Areas of Cooperation and Collaboration Interest - Cont'd

- **Cooperation in the areas of science:**

- **Capacity Building**
 - science leadership capacity building
 - institutional capacity building
 - Researchers/scientists capacity building
- **STEM Education**
- **ASET Skills Development**
- **Science Culture Enhancement**
 - Science as Societal Culture
 - Indigenous Knowledge
 - Responsible Research and Innovation
 - Science Communication (Science Journals, Monographs, Books etc)
- **Science Management**
- **Science Council**
- **Science Granting Schemes**
- **Science Indicators**

Inclusive and collaborative

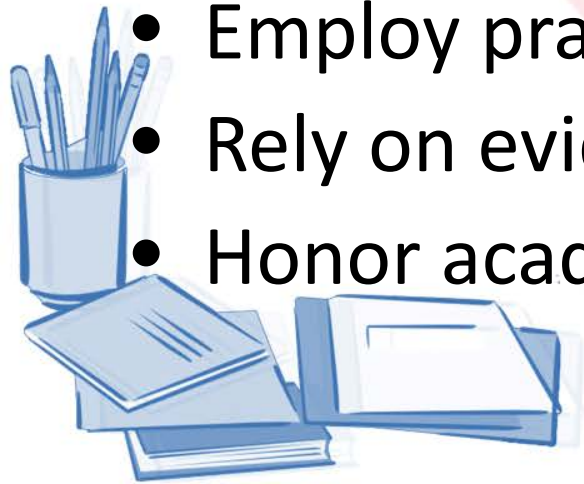
Outcome: Strengthened Science and Science Culture





Summary 1: MoSHE's New Path

- Policy Formulation Principles
- Establish effective systems
- Adopt participatory governance model
- Consult with stakeholders
- Internationalization
- Involve professional advisors
- Employ practical strategic plans
- Rely on evidence-based data
- Honor academic freedom





Summary 1: Where Headed?

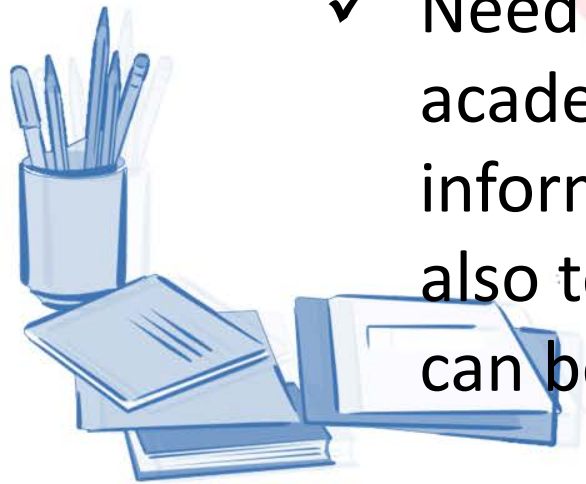
- Rapid development
- Internationally competitive stance
- Evidence-informed policy making
- Middle-income economies and beyond
- Decisions based on genuine studies by competent scholars
- Productive, well to do, happy and healthy citizenry





Conclusion

- Three messages:
 - ✓ Studies by sectoral ministries in collaboration with national and international bodies largely used for policy formulation/review and revision
 - ✓ Advice by think tanks and professional associations to sectoral policies and strategies
 - ✓ Need for improved linkage between academia and policy makers for evidence informed policy making/review/revision and also to gear studies to the direction that they can be useful - “Problem solving model”





Thank you very much!



Better Tomorrow for our Future Generations

