

ASEAN-INDIA
GRASSROOTS
INNOVATION FORUM 2022



National Innovation System: Cambodia

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Government's vision

Income

- Competitive international markets
- Standard interest rate instrument
- Geopolitics/Political instability
- Pandemic diseases
- Other risks (e.g., Climate change)

Upper-middle income

High-income

Lower middle-income

- Rectangular Strategy Phase IV
- STI Policy (2020-2030)
- IDP (2015-2025), NSDP (2017-2023),
- STI Roadmap 2030 and other policies

Past

2015

Present

2030

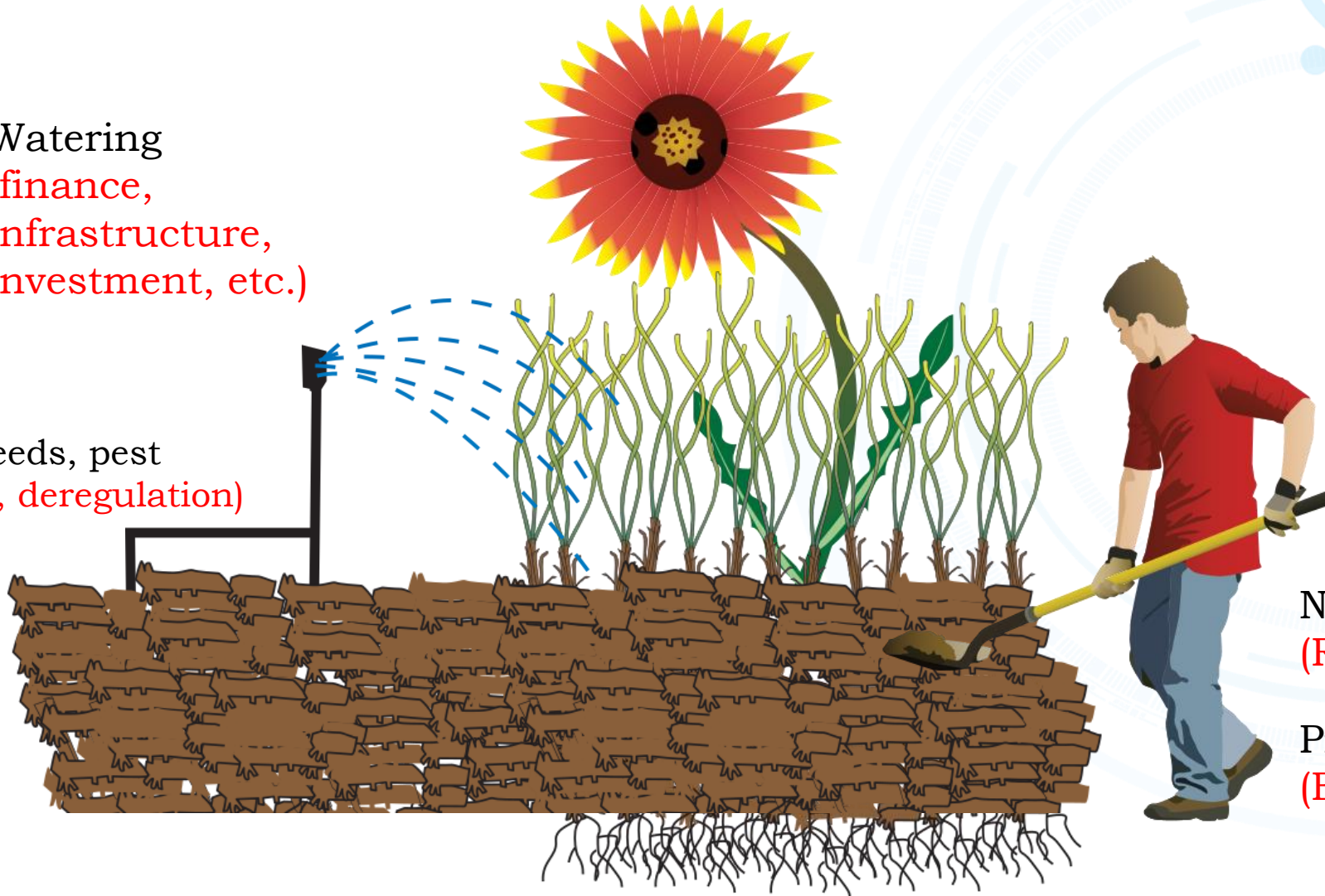
2050

Future

Innovation Process: Gardening Innovation

Watering
(finance,
infrastructure,
investment, etc.)

Removing weeds, pest
(competition, deregulation)

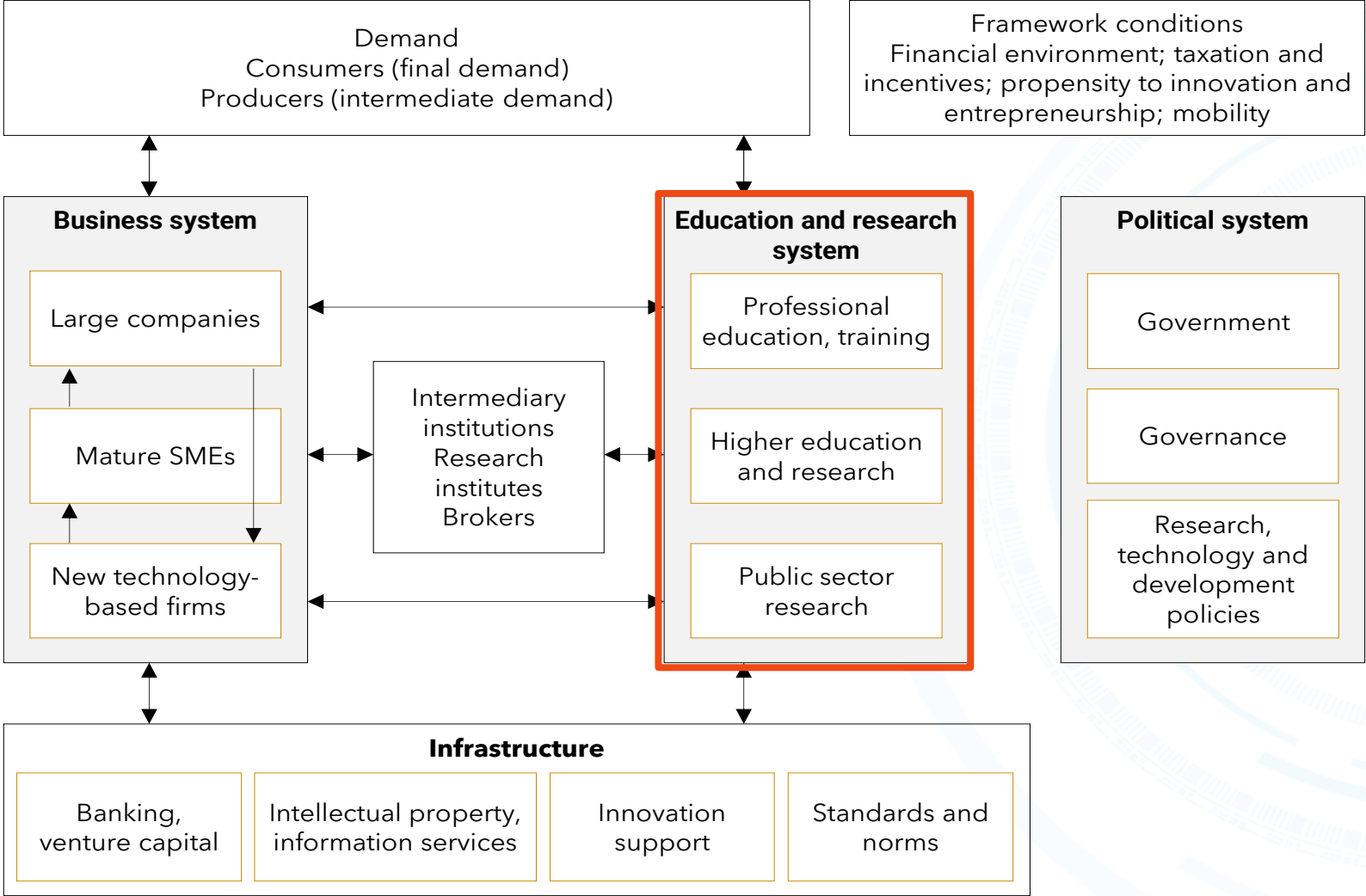


Exchange ideas
with neighbors
(Collaborations,)

Nurturing soil
(R&D, Information)

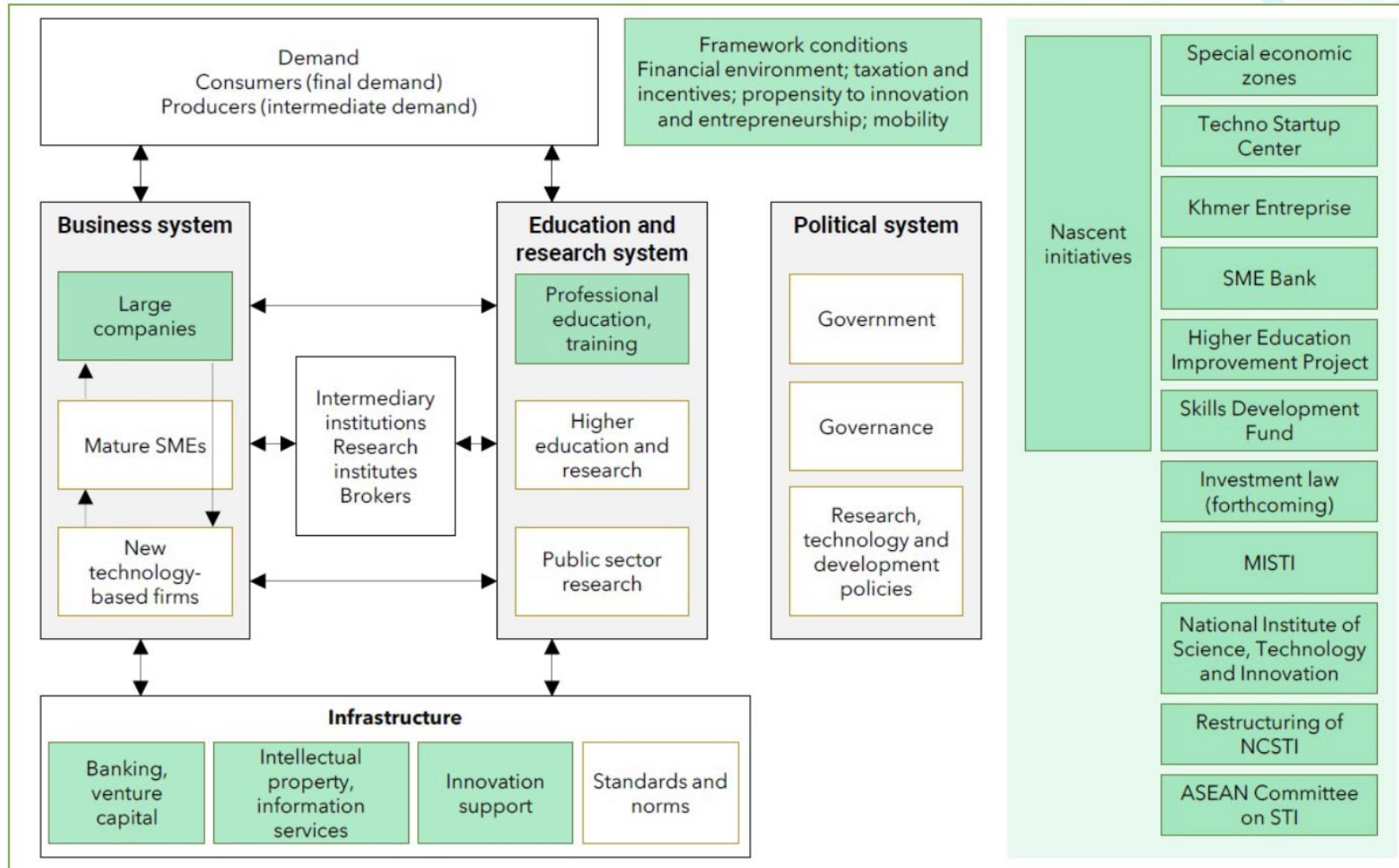
Prepare the ground
(Education, startup)

National Innovation System



Source: S. Kuhlmann and E. Arnold, 2001, RCN in the Norwegian Research and Innovation System, Background Report No. 12 in the Evaluation of the Research Council of Norway. Oslo: Royal Norwegian Ministry of Education, Research and Church Affairs.

National Innovation System (Strengths)





Kingdom of Cambodia

NATION | RELIGION | KING

CAMBODIA'S Vision 2030 & 2050

CAMBODIA'S STI ROADMAP 2030

GOVERNANCE

EDUCATION

RESEARCH

COLLABORATION

ECOSYSTEM

This CAMBODIA'S Science Technology & Innovation (STI) Roadmap 2030 is built on various national policies and strategic plans.



MINISTRY OF INDUSTRY, SCIENCE, TECHNOLOGY & INNOVATION

Our Goal

STI will be a pivotal driving force and locomotive for future socio-economic development by accelerating the structural transformation that shifts development pathway from labor intensive to skill-based economy. CAMBODIA'S STI Roadmap 2030 will serve as a strategic document that help guide key actors in the National Innovation System to take critical actions to achieve the pre-defined milestones in a specific timeframe, under the coordination of Ministry of Industry Science Technology & Innovation (MISTI) and the guidance of National Council of Science Technology & Innovation (NCSTI).

Our Expectation

CAMBODIA'S STI Roadmap 2030 targets 5 pillars: Governance, Education, Research, Collaboration and Ecosystem. Policy targets and specific activities with measurable instruments and indicators in a certain timeframe have been proposed for actors to implement. Hence, this roadmap will be a crucial asset for the realization of Vision 2030 & 2050.

GOVERNANCE



Enhancing the governance of the STI system

- MISTI as the lead coordinator of the National STI Policy, under the guidance of NCSTI
- 1% of GDP invested in STI, half from public, by 2030
- Progress of public funding for socio-economic development by 2030

EDUCATION



Building human capital in STI

- 50% of STEM graduates by 2030
- Master and PhD curricula developed with private sector before 2024
- Technology platforms set up at the university and TVET level by 2023
- 2 science museums by 2030, of which 1 in Phnom Penh by 2023
- 20 innovation days and 20 innovation forums by 2030
- 3 science libraries by 2030, of which 1 in Phnom Penh by 2023

RESEARCH



Strengthening research capacity & quality of research

- Five-year National Research Agenda to set the directions for research
- National Research Fund set up by 2023
- 1% of GDP invested in R&D by 2030,
- 1500 scientific publications by Cambodian scientists in international journals by 2030
- 7 research-universities/centers of excellence by 2025

COLLABORATION



Increasing collaboration & networking between STI stakeholders

- 5 universities establishing University-Industry Linkage Office by 2023, 50% of universities by 2030
- Internships in industry included in curricula by 2030
- STI park and cluster policy approved by 2022, 3 parks/clusters piloted by 2023, and fully operated by 2025

ECOSYSTEM



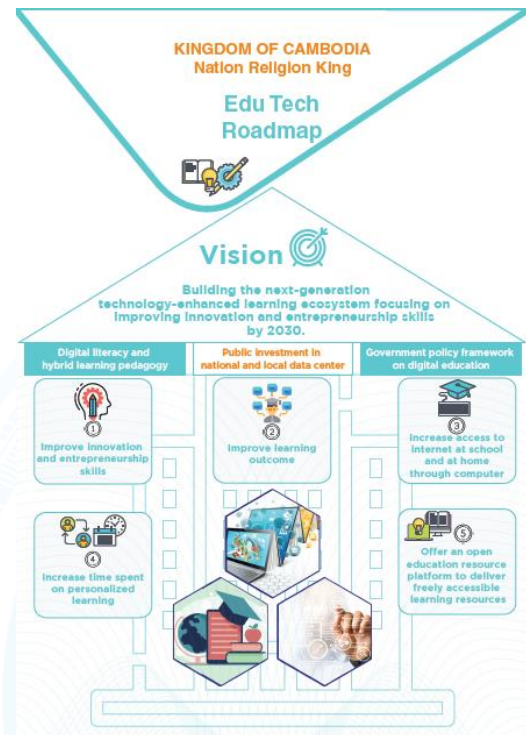
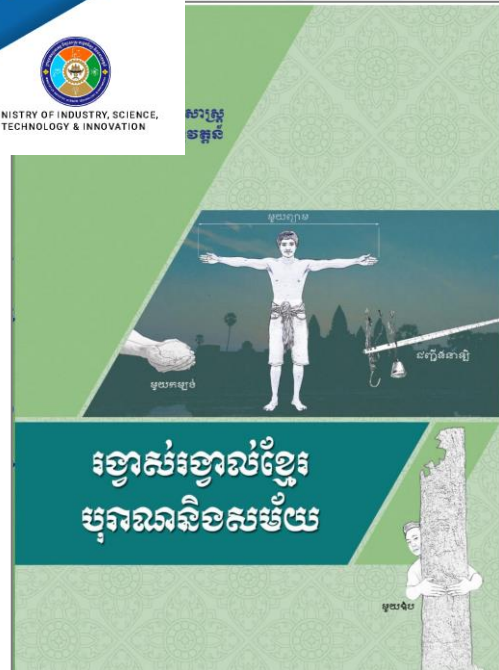
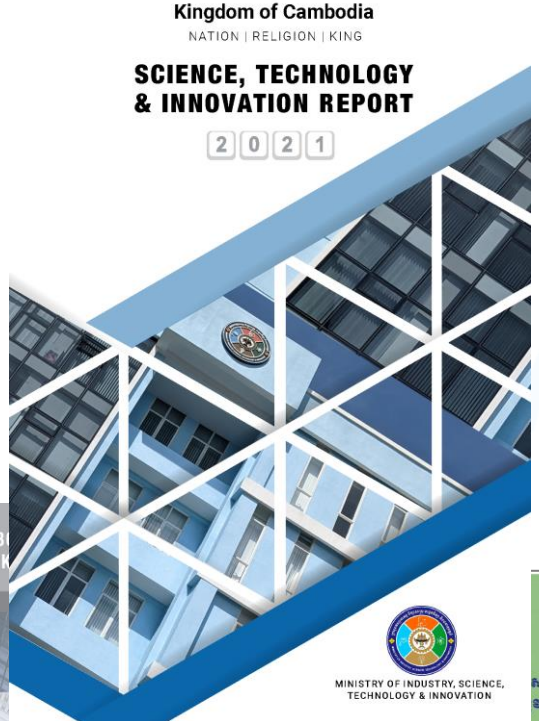
Fostering an enabling ecosystem for building absorptive capacities in firms & attracting investments in STI

- Technology Transfer Law and mechanism developed and fully deployed by 2023
- Intellectual property regime enforced by appropriate mechanisms by 2023
- Above average of Global innovation index in ASEAN by 2030

Some Policy Mix

Governance	Education	Research	Collaboration	Ecosystem
Assign leadership role of MISTI	Co-design and monitor on STEM	Set up National Research Agenda	innovative cluster and park	Broaden mandate of SME Bank
Co-develop sectoral National Innovation Plan	Science Museum, Library, Day	Research in university mission	UIL office in university	Incentive investment law, Tech transfer law
Entrust NCSTI to approve direction	Best STEM students	Incentive for research	Train the mentors	Entrepreneur coaching and competition
Capacity training on policy design, data gathering, M&E	Collaboration with private	Dialogue with researcher	Incubation facilities and programmes	Provide service for scale up
3 year Enterprise innovation survey	Digital tech in curriculum	Grant	Funding	Increase investment readiness

Developed documents



Recent adopted policy documents



KINGDOM OF CAMBODIA
ROYAL GOVERNMENT OF CAMBODIA

Royal Government of Cambodia

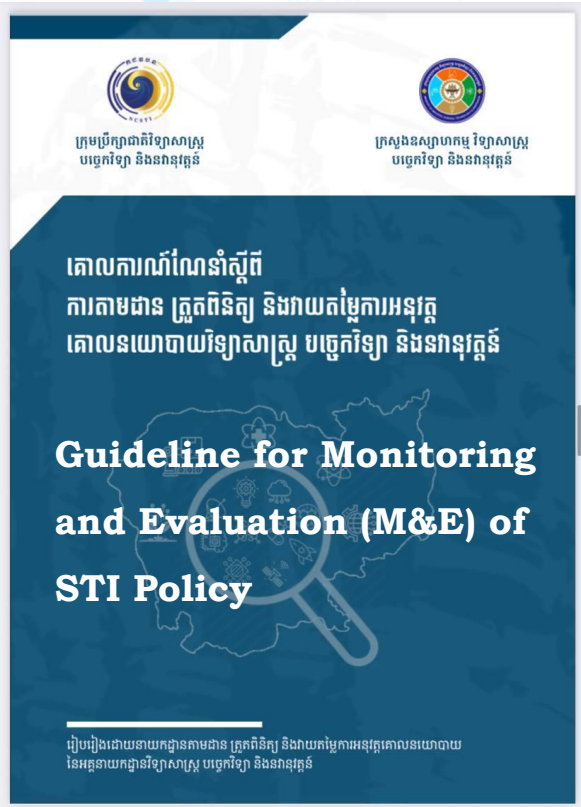
National Research Agenda



Endorsed by
NATIONAL COUNCIL OF SCIENCE,
TECHNOLOGY & INNOVATION



Prepared by
MINISTRY OF INDUSTRY, SCIENCE,
TECHNOLOGY & INNOVATION



National Research Agenda

- **‘Local food’**: 70 percent of Cambodia food consumption is produced locally
- **‘Reliable Energy Supply’**: 90 percent of energy consumption is generated locally
- **‘Quality Education’**: Education meets international quality standards
- **‘Electronic and mechanical spare parts’**: Cambodia exports 70 percent of the electronic and mechanical spare parts produced in the country
- **‘Cloud-based services’**: Cambodia’s cloud-based services development is on par with ASEAN
- **‘Electricity and potable water’**: All Cambodians have access to reliable electricity and safe potable water
- **‘Carbon neutrality’**: Cambodia becomes a carbon neutral country
- **‘Digitally-enhanced health’**: All Cambodians have access to digitally-enhanced health services



Royal Government of Cambodia

National Research Agenda



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TECHNOLOGY & INNOVATION



Prepared by:
MINISTRY OF INDUSTRY, SCIENCE,
TECHNOLOGY & INNOVATION

Current Drafting Policy and Regulation and Initiatives

- Tech Transfer Law
- R&D Management Sub-decree
- STI Parks Management Sub-decree
- Talents Grant-in program
- Technology roadmaps for Energy, Tourism and Digital Sectors
- Monitoring, Inspection and Evaluation (M&E) Framework of Cambodia's STI Roadmap 2030
- National STI's Day
- ASEAN Technology Management Hub
- Science and Technology Human Resources Database Inventory



Thank You

