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Science, technology and innovation as catalysts for the Sustainable Development Goals

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The Nairobi Maafikiano mandates UNCTAD to promote effective international and national policies to help developing countries harness science, technology, innovation and entrepreneurship as an effective means of implementation of the SDGs, through policy analysis, sharing of experiences and policy-oriented capacity-building.

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Science, technology and innovation as catalysts for the Sustainable Development Goals

Note by the UNCTAD secretariat

Executive summary

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Science, technology and innovation are critical to the achievement of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. Given a strong effort to upgrade the related capabilities of developing countries, science, technology and innovation can drive productivity improvement and economic growth, promote social inclusion and enable environmental sustainability. This note addresses the potential of several emerging technologies to contribute to the Goals and links them to examples of innovation in developing countries. The note also includes considerations of possible policy frameworks that leverage science, technology and innovation for inclusive and sustainable development, and suggests points for further discussion by the Investment, Enterprise and Development Commission.





- Introduction
- Chapter II: nature of new and emerging technologies; potential to contribute to the SDGs
- Chapter III: examples of SDGrelevant innovation in DCs; opportunities for the private sector to drive innovation
- Chapter IV: design of public policies for inclusive and sustainable science, technology and innovation
- Conclusions: areas for further consideration and discussion by the this Commission.

2030 Agenda and emerging technologies AGENDA 2030 – Radical Change

- Common features of new technologies relevant for Agenda 2030:
 - Fast change and short adaptation cycles
 - Lower costs and wider choices
 - More open STI collaboration
- 13 Vew forms of work
- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
- 17 PARTNERSHIPS FOR THE GOALS



2030 Agenda and innovation and entrepreneurship

- Precision agriculture: SDGs 1, 2, 9, 12, 15
- Water management, wastewater treatment and nutrient recovery: SDGs 6, 9, 11, 15
- Transformative technologies: SDGs 3, 4, 8, 9 and 10 > exponential growth & impact due to strong link to ICTs
- Innovation and entrepreneurship
 Safemotos Taka Solutions
 BeeOdiversity Northwood Environmental

Policy responses (1/2)

 Policies should aim to impact economic conditions <u>and</u> guide social change

> new tech presents risk of social exclusion, industrial obsolescence

- Getting policy fundamentals right

 > absorptive capacities, innovative capabilities, human capital, technological learning
- Supporting innovative firms
 > networks, clusters, tech parks, accelerators, finance
- Strengthening education and training
 > tech skills and matching soft skills, gender balance
- Building domestic and international linkages
 > NSI framework, int'l linkages depend on tech capacity of firms

Policy responses (2/2)

Demand-side innovation policy

> public procurement, regulation, standards, consumer policy, user-led and open innovation

International collaboration

> New technology creates window of opportunity – need to mobilize resources in innovative ways

New policy frameworks for SDG innovation

> solution-specific, pro-poor, inclusive, social, grass roots and digitallyenabled, open, collaborative innovation, innovation policy 3.0?

Questions for consideration

- Key challenges, benefits and lessons in adopting advanced technologies?
- International collaboration what works and where does it fail DCs, LDCs and the SDGs?
- How to involve all the stakeholders relevant to the STI-for-SDGs challenge?
- How can international organizations better take on the SDG challenge from a STI perspective?

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Thank you for your attention!



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