UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

THE IMPACT OF RAPID TECHNOLOGICAL CHANGE ON SUSTAINABLE DEVELOPMENT





UNITED NATIONS

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

THE IMPACT OF RAPID TECHNOLOGICAL CHANGE ON SUSTAINABLE DEVELOPMENT





UNITED NATIONS Geneva, 2019

© 2019 United Nations All rights reserved worldwide

Requests to reproduce excerpts or to photocopy should be addressed to the Copyright Clearance Centre at copyright.com.

All other queries on rights and licences, including subsidiary rights, should be addressed to:

United Nations Publications, 300 East 42nd Street, New York, New York 10017, United States of America Email: publications@un.org Website: un.org/publications

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of firms, organizations or policies does not imply endorsement by the United Nations.

This publication has not been formally edited.

United Nations publication issued by the United Nations Conference on Trade and Development

UNCTAD/DTL/STICT/2019/10

ISBN 978-92-1-112962-5 eISBN 978-92-1-004478-3 Sales No. E.20.II.D.3

NOTES

The United Nations Conference on Trade and Development (UNCTAD) serves as the lead entity within the United Nations Secretariat for matters related to science and technology as part of its work on the integrated treatment of trade and development, investment and finance. The current UNCTAD work programme is based on the mandates set at quadrennial conferences, as well as on the decisions of the General Assembly of the United Nations and the Economic and Social Council that draw upon the recommendations of the Commission on Science and Technology for Development (CSTD), which is served by the UNCTAD secretariat. The UNCTAD work programme is built on its three pillars of research analysis, consensus-building and technical cooperation, and is carried out through intergovernmental deliberations, research analysis, technical assistance activities, seminars, workshops and conferences.

This series of publications seeks to contribute to exploring current issues in science, technology and innovation, with particular emphasis on their impact on developing countries.

The term "country" as used in this study also refers, as appropriate, to territories or areas. In addition, the designations of country groups are intended solely for statistical or analytical convenience and do not necessarily express a judgment about the stage of development reached by a particular country or area.

Any references to dollars (\$) are to United States dollars.

ACKNOWLEDGEMENTS

This study was prepared by UNCTAD staff members Bob Bell and Katalin Bokor, under the supervision of Dong Wu, Chief, Science, Technology and Innovation Policy Section and with the overall guidance of Shamika N. Sirimanne, Director of the Division on Technology and Logistics.

The report benefited from a substantive contribution by Susan Cozzens (Georgia Tech Ivan Allen College of Liberal Arts), principal consultant for the study.

UNCTAD appreciates valuable inputs provided by the Governments of Austria, Canada, Chile, the Dominican Republic, Egypt, Finland, Germany, Hungary, Japan, Latvia, Mexico, Peru, Poland, South Africa, Switzerland, Turkey and the United States of America, as well as from the Economic Commission for Europe, Economic and Social Commission for Asia and the Pacific, Economic and Social Commission for Western Asia and the European Union.

The publication benefited significantly from discussions and inputs during the 2018–2019 CSTD Intersessional Panel (January 2019), as well as the twenty-second session of the Commission (May 2019).

Magali Studer designed the cover. Malou Pasinos provided administrative support.

TABLE OF CONTENTS

Ack	nowl	edgements	iv					
Ι.	Introduction							
п.	Opportunities of rapid technological change for sustainable development							
	A.	Eradicating poverty and monitoring progress in achieving the Sustainable Development Goals	3					
	В.	Improving food security, nutrition and agricultural development	3					
	C.	Promoting energy access and efficiency	5					
	D.	Enabling economic diversification and transformation, productivity and competitiveness	6					
	E.	Promoting social inclusion	7					
	F.	Confronting disease and improving health	7					
	G.	Scaling and personalizing education	8					
Ш.	Transformative and disruptive potential of rapid technological change							
	А.	Automation, labour markets and jobs of the future	9					
	В.	Socioeconomic divides	10					
	C.	Ethical issues and considerations	11					
IV.	Rapid technological change and leaving no one behind							
	А.	Impact of rapid technological change on gaps within countries	12					
	В.	Impact of rapid technological change on gaps between countries	13					
	C.	Potential of rapid technological change to "leave no one behind"	14					
V .	National strategies and policies							
	А.	Addressing the education-employment nexus of rapid technological change	16					
	В.	Strengthening national innovation systems for rapid technological change	16					
	C.	Developing national policies and strategies on rapid technological change	20					
	D.	Building digital competencies to close digital divides	22					
	E.	Strengthening capacity for technology foresight and assessment	24					
VI.	Regional, international and multi-stakeholder cooperation							
	А.	Regional and international cooperation	25					
	В.	Multi-stakeholder initiatives	26					
	C.	United Nations and Commission on Science and Technology for Development	27					
VII.	Key	messages	29					
Refe	References							

000000

LIST OF BOXES

Box 1.	Turkey: Smart Manufacturing Systems Technology Road Map	6
Box 2.	India: Aadhar programme for social inclusion	7
Box 3.	ManaBlass.lv: A platform for citizens' legislative initiatives	7
Box 4.	Skills Agenda for Europe	9
Box 5.	A legal framework for workers of the platform economy	10
Box 6.	Chile and Peru: Public-private partnerships to develop digital infrastructure	18
Box 7.	Poland and Egypt: Providing a strong institutional and legislative environment to keep pace with the needs of the information and communications technology sector	18
Box 8.	Latvia: Green public procurement to support sustainable technologies	18
Box 9.	South Africa: Supporting technological innovation in the entrepreneurial ecosystem	18
Box 10.	The approach of the United States to emerging technologies	19
Box 11.	Chile: Developing capacities in frontier technologies based on existing capacities in astronomy	21
Box 12.	Challenges in translating strategies into impact in some Arab countries	22
Box 13.	Canada and the United States: Inclusive policies to develop digital skills	23
Box 14.	Policies for an empowering digital environment for women and girls	23
Box 15.	International collaboration in space technologies	25
Box 16.	International collaboration in renewable energy technologies	26
Box 17.	Multi-stakeholder initiatives to address gender digital divides	27

LIST OF FIGURES

Figure 1.	Global income growth,	1988–2008	13
-----------	-----------------------	-----------	----

预览已结束, 完整报告链接和二维码如下:



https://www.yunbaogao.cn/report/index/report?reportId=5_8784