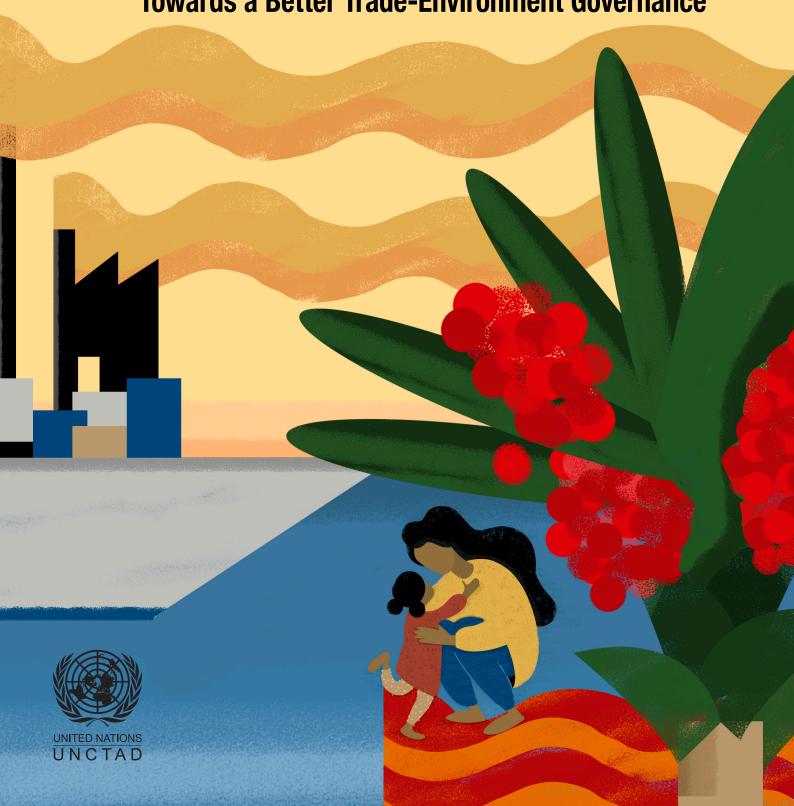
UNCTAD

The Role of Exports in Manufacturing Pollution in Sub-Saharan Africa and South Asia Towards a Better Trade-Environment Governance



© 2021, United Nations Conference on Trade and Development.

The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the United Nations or its officials or Member States.

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.

This document has not been formally edited.

UNCTAD/DITC/TED/INF/2021/6

Note

The material contained in this publication may be freely quoted or reprinted, but acknowledgement is requested, together with reference to the document number. A copy of the publication containing the quotation or reprint should be sent to the UNCTAD secretariat at Palais de Nations, 1211, Geneva 10, Switzerland. The designations employed and the presentation of the material do not imply the expression of any position whatsoever on the part of the United Nations Secretariat concerning the legal status of any country, territory, city area, or its authorities, or concerning the delimitations of its frontiers and boundaries, or regarding its economic system or degree of development. This publication has been edited externally.

Acknowledgements

This study is part of the Sustainable Manufacturing and Environmental Pollution (SMEP) programme, funded by the Foreign, Commonwealth and Development Office (FCDO) of the United Kingdom of Great Britain and Northern Ireland and implemented in partnership with UNCTAD. This report has been funded by UK aid but the views expressed do not necessarily reflect the UK government's policy. The study was prepared by the Instituto 17 (i17) under the guidance of UNCTAD's Trade, Environment, Climate Change and Sustainable Development Branch.

Alessandro Sanches Pereira coordinated the team of experts, which included: Guilherme C de Mendonça, Karina C G do Amaral, Katja Špur, Lilian B Elabras-Veiga, Marcela V Lange, and Thais D Oliveira as lead authors; Andrey Mikail S Komarcheuski as database analyst; Bahati S Mayoma (United Republic of Tanzania), Mahbubur R Khan (Bangladesh), Nancy A Oduor (Kenya), and Shiraz Hassan (Pakistan) as local experts.

The study has benefited from peer reviews, substantive inputs and suggestions from Henrique Pacini, Claudia Contreras, Robert Hamwey, Alexey Vikhlyaev, Teresa Moreira, Steve McFeely, and Ralf Peters from UNCTAD, Jonathan Hassall (FCDO), Amanda Dinan (South South North) and Mahesh Sugathan (Graduate Institute). Guilherme N S Pinto, Patricia Maehata and Renata R Dahmer from i17 provided project support, Arielle Martins and Lia Tostes collaborated on the cover art, Lia Tostes designed the report, Rafe Dent (UNCTAD) was responsible for desktop formatting.

29 October 2021



Contents

Note	iii
Acknowledgements	iii
Acronyms and abbreviations	vii
Executive summary	xi
INTRODUCTION.	1
SECTION I. IMPACTS FROM MANUFACTURING EXPORTS IN SUB-SAHARAN AFRICA A	
A. The role of trade and manufacturing sectors for the economies of SMEP target countrie 1. Trade analysis for manufacturing sectors 2. Manufacturing exports portfolio	10
B. Manufacturing pollution and associated environmental impacts	16
C. Regional Trade Agreements and public environmental governance	22
SECTION II. CASE STUDIES	24
A. Case study countries and sector selection	24
B. Sub-Saharan Africa	25
C. South Asia	50
SECTION III. KEY CONSIDERATIONS AND RECOMMENDATIONS FOR SMEP TARGET COUNTRIES	79
A. Environmental law and public governance	
B. Private sector governance	
C. Life Cycle Assessment 1. Key considerations	
REFERENCES	83
List of Annayas	94

Figures

Figure 1.	GDP components in percentage based on expenditure per selected year	4
Figure 2.	Value-added share of economic activities per selected year	7
Figure 3.	Manufacturing trade-in value and quantity for SMEP target countries (average figures between 200 and 2019)	
Figure 4.	Manufacturing exports of SMEP target countries by destination in 2015 (million tonnes)	11
Figure 5.	Carbon emissions of SSA and South Asia countries in 2019	12
Figure 6.	Evolution of main SSA exporting activities (2001-2019)	13
Figure 7.	Evolution of main South Asia exporting activities (2001-2019)*	14
Figure 8.	Value of manufacturing exports by activity and country (2015-2019)	15
Figure 9.	Trade indicators of exports penetration and concentration*	15
Figure 10.	Impact results for the SMEP target countries in South Asia (normalised relative contribution)	17
Figure 11.	Impact results for the SMEP target countries in SSA (normalised relative contribution)	18
Figure 12.	Impact results for the SMEP target countries in South Asia (normalised relative contribution)	19
Figure 13.	Impact results for the SMEP target countries in SSA (normalised relative contribution)	21
Figure 14.	Impact results for the food and beverage sector in Kenya (normalised relative contribution)	35
Figure 15.	Impact results for exported crude palm oil in Kenya per production stage (normalised absolute contribution)	36
Figure 16.	Impact results for exported crude palm oil in Kenya per production stage (normalised relative contribution)	36
Figure 17.	Impact results for the food and beverage sector in the United Republic of Tanzania (normalised relative contribution)	46
Figure 18.	Impact results for exported sunflower oil cake in the United Republic of Tanzania per production stage (normalised absolute contribution)	47
Figure 19.	Impact results for exported sunflower oil cake in the United Republic of Tanzania per production stage (normalised relative contribution)	48
Figure 20.	Ecological footprint of the RMG sector in Bangladesh	54
Figure 21.	Impact results for the textile sector in Bangladesh (normalised relative contribution)	61
Figure 22.	Impact results for exported jute yarn in Bangladesh per production stage (normalised absolute contribution)	62
Figure 23.	Impact results for jute fibre exported in Bangladesh per production stage (normalised relative contribution)	63
Figure 24.	Impact results for the textile sector in Pakistan (normalised relative contribution)	76
Figure 25.	Impact results for exported woven cotton products in Pakistan per production stage (normalised absolute contribution)	76
Figure 26.	Impact results for exported woven cotton products in Pakistan per production stage (normalised relative contribution)	77

Tables

Table 1.	General description of SMEP target countries in 2019*	3
Table 2.	Selection criteria table and selected sectors for case study analysis in target countries	24
Table 3.	NEP Environmental Statements for Trade	27
Table 4.	Strengths and constraints of the Kenyan manufacturing sector	29
Table 5.	SDGs included in the EABL business sustainability strategy	31
Table 6.	SDGs covered by Kapa's corporate company strategy	32
Table 7.	Outcomes from SWITCH Africa Green programme in Kenya	34
Table 8.	Environmental burden per 1 tonne of exported crude palm oil	37
Table 9.	Tanzanian environmental governance challenges	40
Table 10.	Manufacturing sector challenges in the United Republic of Tanzania	41
Table 11.	Food, beverages, and tobacco manufacturing companies in the United Republic of Tanzania	42
Table 12.	Pollutants generated by the Tanzanian food and beverage sector	43
Table 13.	Results from RECP adoption in NBCL	44
Table 14.	Environmental burden per 1 tonne of exported sunflower oil cake	49
Table 15.	LEED Certified Green RMG Companies	55
Table 16.	PSES Results between 2009 and 2019	60
Table 17.	Environmental burden per 1 tonne of exported jute yarn	64
Table 18.	Provincial environmental law and governance for the textile sector in Pakistan	66
Table 19.	Artistic Denim Mills Sustainability Initiatives	70
Table 20.	Industrial associations in Pakistan	72
Table 21.	Sector contribution under PISD Phase I	73
Table 22.	Environmental burden per 1 tonne of exported woven cotton products	78

Acronyms and abbreviations

3Rs	Reduce, Reuse, and Recycle	BIMSTEC	The Bay of Bengal Initiative for Multi-Sectoral Technical and	
ADB	Asian Development Bank		Economic Cooperation	
AEMs	African Eco-labelling Mechanisms	BKMEA	Bangladesh Knitwear Manufacturers & Exporters Association	
AfCFTA AGOA	African Continental Free Trade Area African Growth and Opportunity Act	BMZ	German Federal Ministry for Economic Cooperation and Development	
		BOD	Biological Oxygen Demand	
APTA	Asia Pacific Trade Agreement	BRAC	Bangladesh Rural	
APTMA	All Pakistan Textile Mills Association		Advancement Committee	
APTPMA	All Pakistan Textile Processing	BSCI	Business Social Compliance Initiative	
	Mills Association	BTAs	Bilateral Trade Agreements	
ARSCP	African Roundtable on Sustainable	BTMA	Bangladesh Textile Mills Association	
ANSUF		CBI	Climate Bonds Initiative	
	Consumption and Production	CDM	Clean Development Mechanism	
B4	Big Four	CGC	Corporate Governance Code	
BAPA	Bangladesh Environmental Movement	CMC	Carboxymethyl Cellulose	
BAT	Kenya British American	CO_2	Carbon Dioxide	
DAI		CoCs	Codes of Conduct	
BAU	Tobacco Kenya plc Business as Usual	COMESA	Common Market for Eastern and Southern Africa	
BCI	Better Cotton Initiative	COPD	Chronic Obstructive Pulmonary Diseases	
БОІ		CPCT	Cleaner Production Centre of Tanzania	
BELA	Bangladesh Environmental Lawyers Association	CPEC	China-Pakistan Economic Corridor	
		CPF	Cooperation and Partnership Facility	
BEPI	Business Environmental	CPI	Cleaner Production Institute	
	Performance Initiative	CPO	Crude Palm Oil	
BEZA	Bangladesh Economic Zone Authority	CSE	Chittagong Stock Exchange	
RCADMEA	Rangladach Garmente Accassorias	CSR	Corporate Social Responsibility	
DOAFIVILA	Bangladesh Garments Accessories Packaging Manufacturers Exporters Association	CTCN	Climate Technology Centre and Network	
		CTI	Confederation of Tanzania Industries	
DO1:=:		C-TPAT	Customs-Trade Partnership Against Terrorism	
BGMEA	Bangladesh Garment Manufacturers	CTP-Tavtil	e Cleaner Technology Program for Textile	
BHTPA	and Exporters Association Bangladesh Hi-Tech Park Authority	D-8	Developing 8 Organization for	
			Economic Cooperation	

DDA	Dalian Development Area	FYDP II	Tanzania's Five-Year Development Plan 2016–2021	
DDI	Domestic Direct Investment	0.00		
DoE	Department of Environment	G2G	Government to Government Economic Zones	
DSE	Dar es Salaam Stock Exchange Limited	GATT	General Agreement on Tariffs and Trade	
DSE	Dhaka Stock Exchange	GBPK	Green Bonds Programme Kenya	
EABL	East African Breweries Limited	GDP	Gross domestic product	
EAC	East African Community	GESIP	Green Economy Strategy and	
ECO	ECO Mark Africa	GESIP	Implementation Plan	
ECOTA	Economic Cooperation	GFA	Global Fashion Agenda	
	Organization Trade Agreement	GHG	Greenhouse gas	
ECOWAS	Economic Community of West African States	GID	Green Industry Development	
EEIOA	Environmentally Extended	GIZ	German Corporation for International Cooperation	
	Input-Output Assessment	GoP	Pakistan Government	
EIA	Environmental Impact Assessment	GOTS	Global Organic Textile Standard	
EIP	Eco-industrial Parks		· ·	
EKN	Embassy of Kingdom of the Netherlands	GRI	Global Reporting Initiative	
EMA	Environmental Management Act	GRS	Global Recycled Standard	
EMCA	Environmental Management and Coordination Act	GSCM	Green Supply Chain Management	
		GSTP	Global System of Trade Preferences	
EMP	Environmental Management Plan	GTSF	Global Trade Supplier Finance	
EMS	Environmental Management System	GVC	Global Value Chain	
EPA	Economic Partnership Agreement	HDI	Human Development Index	
EPR	Extended Product Responsibility	HS	Harmonized System	
EPZ	Exporting Processing Zone	i17	Instituto 17	
EPZA	Export Processing Zone Authority	ICT	Information and Communication	
ESG	Environmental, Social and		Technologies	
	Corporate governance	IFC	International Finance Corporation	

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_8554



