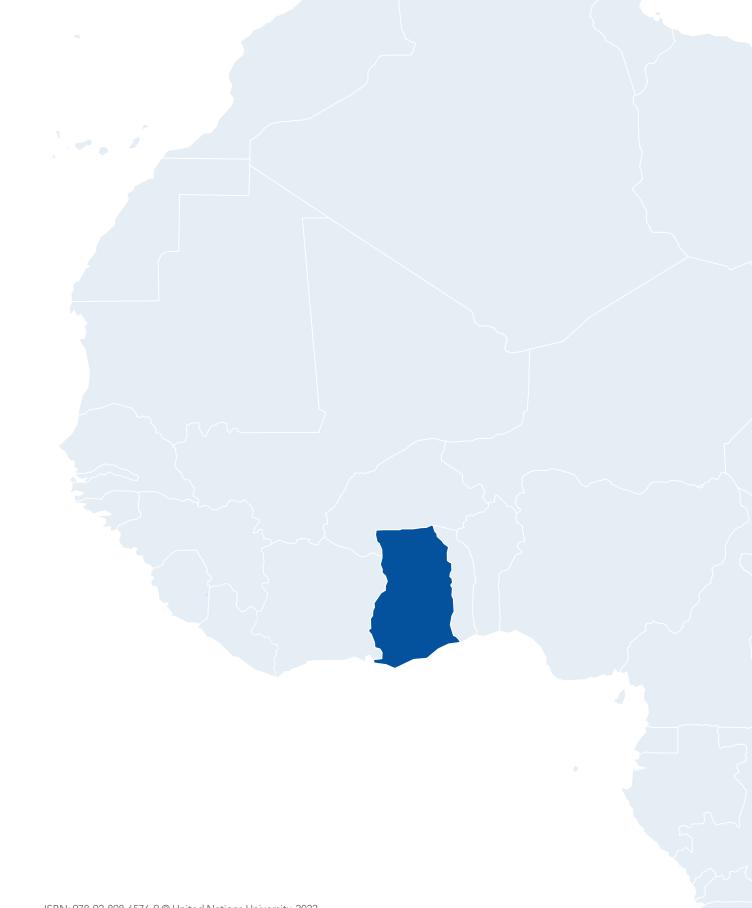
# 'EARTH SHATTERING'

Opportunities for Financial Sector Engagement at the Nexus of Modern Slavery and Natural Resources in Africa **BRIEFING NOTE** 









ISBN: 978-92-808-6576-9 © United Nations University, 2022.
All content (text, visualizations, graphics), except where otherwise specified or attributed, is published under a Creative Commons Attribution- Noncommercial Share Alike IGO license (CC BY-NC-SA 3.0). Using, re-posting and citing this content is allowed without prior permission.

## Contents

List of Abbreviations	iv
Introduction	1
The Research Objectives	2
The Findings	3
Recommendations	7

#### List of Abbreviations

AML	Anti-Money Laundering	GDP	Gross Domestic Product	
ASM	Artisanal Small-Scale Mining	GHC	Ghanaian Cedis	
BOG	Bank of Ghana	ICCPR	International Covenant on Civil and Political Rights	
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women	ILO	International Labour Organization	
CFT	Countering the Financing of	LBC	Licensed Buying Companies	
COCOBOD	Terrorism  Ghana Cocoa Board	MSHT	Modern Slavery and Human Trafficking	
CRC	Convention on the Rights	NGO	Non-Governmental Organization	
	of the Child	PPP	Public/Private Partnerships	
CSO	Civil Society Organization	SDGs	Sustainable Development Goals United Nations University Centre for Policy Research	
ESG	Environmental, Social and Governance	UNU-CPR		
EITI	Extractive Industries Transparency Initiative	UNU-INRA	United Nations University Institute for Natural Resources in Africa	
FAST	Finance Against Slavery and Trafficking	USD	United States Dollar	
FATF	Financial Action Task Force	WFCL	Worst Forms of Child Labour	

# INTRODUCTION

The financial sector is increasingly recognizing the important role <u>sustainable finance</u> plays in creating transparent and sustainable capital markets and a fair economy. Coalitions like the <u>UN Global Compact and Principles for Responsible Investment</u> recognize that commitments by financial actors play a vital part in the international community's attempts to achieve the Sustainable Development Goals (SDGs) by 2030.

However, given the COVID-19 pandemic and the correlation between rising extreme **poverty**<sup>1</sup> and **child labour**, especially in the countries of the Global South, the financial sector faces significant challenges in achieving SDG 8.7: "Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms."

Modern slavery is a term used in this report to include 'forced labour, debt bondage, forced marriage, other slavery and slavery-like practices, and human trafficking'. Between 2017 and 2021, the number of people in forced labour and forced marriage globally rose from 40.3 million to 49.6 million — a trajectory that makes Sustainable Development Goal 8.7 (SDG 8.7) to eradicate modern slavery appear further out of reach. This increase had been forecasted in the context of the COVID-19ii and climate change megatrends.

Global Estimates of modern slavery further indicate that forced labour in Africa has risen by over 0.4 million, from 3.4 million to 3.8 million.

Simultaneously, around USD 89 billion per year is being funnelled out of Africa through <u>illicit financial</u> flows, which may well have slavery and trafficking at their source. The continent faces an increased risk of modern slavery and human trafficking in the years ahead, due in part to the <u>climate crisis</u><sup>2</sup>.

These challenges call for collective global action from stakeholders across all sectors, especially the public and private sectors, to identify, address, and work to prevent modern slavery in value chains on the African continent.

Earth Shattering was a rapid research project, jointly undertaken by the Finance Against Slavery and Trafficking (FAST) initiative at United Nations University Centre for Policy Research (UNU-CPR) and the United Nations University Institute for Natural Resources in Africa (UNU-INRA) to:

- 1. Provide evidence to inform the private sector, particularly banks and digital finance providers, of the market opportunities of serving the needs of smallholders and small-scale miners in the high-risk agricultural and extractive sectors (cocoa and gold).
- 2. Provide data and evidence on the critical role the financial sector and financial regulators can play to identify and address modern slavery in these sectors and create fair and transparent transactions in cocoa and gold value chains.

The full report is available on the FAST website. This briefing note highlights the main findings and recommendations.

<sup>&</sup>lt;sup>1</sup> Between 88 million and 115 million more people were forced into extreme poverty in 2020, mainly due to the COVID-19 pandemic.

<sup>&</sup>lt;sup>2</sup> It is estimated that as many as 86 million people in sub-Saharan Africa will be internal climate migrants by 2050, according to the World Bank's Groundswell report.

# THE RESEARCH OBJECTIVES

The Earth Shattering project aimed to gain insights into the nexus between modern slavery and natural resources, identifying new evidence, raising awareness, and catalysing new ways in which the financial sector, governments, and multilateral actors can synchronize their actions to tackle risks and abuses in the cocoa and gold mining sectors.

To do so, it examined the driving forces of modern slavery in the gold mining and cocoa growing areas of the Ashanti and Western Regions of Ghana to identify opportunities for the financial sector to: (1) improve the identification of illicit flows from slavery and trafficking, and (2) increase protection for vulnerable communities.

<u>Vulnerability</u> to modern slavery is determined by a complex interplay of variables. This includes the existence, or lack of, social protection; respected rights; physical safety and security; and access to basic needs such as food, water, and health care. It is also impacted by patterns of migration, displacement, and conflict. However, poverty is the main underlying cause of modern slavery<sup>iv</sup>. Estimates suggest that in 2017, 133,000 people in Ghana were living in modern slavery-like conditions, with 52.16 in every 100 people in the country viewed as vulnerable to enslavement, especially in agriculture, gold mining, and fishing.

Regularly located in the same geographical area, artisanal small-scale mining (ASM) for gold and cocoa cultivation are two important livelihood options for many poor, unemployed, and low-income people in Ghana's mineral-rich rural areas. Both sectors contribute immensely to Ghana's economy, but they are also known to be high-risk sectors for environmental damage and labour

exploitation. Cocoa and gold are both global multibillion dollar value chains where forced labour and child labour are persistent issues. Farmers and miners alike report inadequate incomes and an absence of financial support. Gold is also an incredibly important investment commodity for the international financial sector. For example, since the start of the COVID-19 pandemic, gold investments have been encouraged as a stable commodity for pension funds.

The Earth Shattering study engaged with affected populations and experts with extensive knowledge and experience of Ghana's anti-trafficking work, as well as the financial, extractive (gold), and agricultural (cocoa production) sectors. As a result, it offers rich and nuanced insights about the modern slavery risks linked to this nexus.

The project's policy proposals rest upon the idea that, by making transactions in these value chains more transparent and fair, and creating sustainable employment opportunities and financial assistance programmes, child labour, forced labour, and human trafficking activities can be identified and reduced. The financial sector has a significant role to play by increasing the financial inclusion of the most vulnerable, applying thorough environment and human rights due diligence to their investments, and increasing the detection of illicit financial flows. The findings and recommendations identify ways in which the financial sector, as a critical partner of the private sector, governments, multilateral organizations, non-governmental organizations (NGOs), and civil society, can better coordinate actions to tackle and reduce modern slavery risks in global value chains.

# THE FINDINGS

The research discovered that not only were the gold and cocoa sectors geographically linked, but they also intersected with environmental issues, pandemic policy responses, and climate change in ways that collectively exacerbated modern slavery vulnerabilities within local communities affected by these value chains.

#### The key risks driving these vulnerabilities relate to three thematic areas:

#### **CLIMATE CHANGE.**

Climate change had an iterative impact on the risks in cocoa producing and ASM communities. Its negative effect on cocoa yields, meant farmers sought cheaper pesticides, cheap or free labour or turned to ASM which further damaged the land and water. The dangerous effects of climate change and environmental damage on ASM meant that miners either lost earnings and fell deeper into debt bondage with their 'sponsors,' or risked working in more hazardous conditions. Similarly iterative were the risks to children and women when situations of poverty required them to work, even within the family, in hazardous and exploitative conditions.

#### LABOUR RIGHTS AND PRACTICES.

The study found that the engagement of labourers (cocoa farms) and miners (ASM) always involves an informal employment relationship, and their vulnerability to labour abuse is high. Farmers, labourers, and miners stated that they are not entitled to any insurance scheme or annual salaries. Farmers specifically indicated that they did not qualify for access to social protection payments during the COVID-19 pandemic. Without being a member of a cooperative or being involved in initiatives designed to address traceability and sustainability, farmers experienced lower productivity and more limited access to some financial services from banks. Low literacy levels can also exacerbate workers' vulnerability.

#### POVERTY AND FINANCIAL EXCLUSION.

Exclusion from financial services by properly regulated, formal financial institutions can force financially struggling miners, farmers, and labourers to rely on informal economic arrangements. This exposes already vulnerable populations to the risks of perpetual debt bondage, loss of land, and/or wage theft. For instance, small-scale miners reported depending on powerful business cartels and owners of mining concessions for credits that are in most cases difficult to redeem, subsequently exposing miners to debt bondage. Farmers reported that they could not access business support from financial institutions because they were considered "thin-file", high-risk clients. This meant that they relied on informal loans, which made them vulnerable to abuse, and they struggled to demonstrate to cocoa buyers the transparency of their employment practices, e.g., wage payments to labourers.

The financial sector - the bankers, investors, insurers, and financial partners of global billion dollar cocoa and gold value chains - has enormous potential leverage and unparalleled influence to respond to these risks in how they identify, address, and prevent modern slavery.

The sector's Environment, Social and Governance (ESG) goals are used to frame the report findings about the increased intersecting risks and vulnerabilities to slavery and trafficking facing populations dependent on these sectors:

#### **Environment**

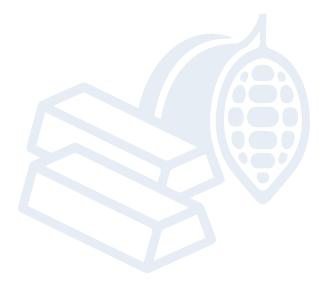
- Climate change was described as impacting on both sectors, which are often located in the same geographical areas, in diverse ways. Unseasonable droughts, elevated temperatures, and heavy rainfall were devastating yields for cocoa. For gold, the same climate issues were increasing the dangerous and exploitative circumstances in which the miners worked.
- Farmers noted that they engage in ASM to complement their low income from cocoa, which has negatively impacted cocoa production. ASM activities, at times illegal, have contributed to environmental destruction, which can have dire consequences, both gender- and agespecific, on a community's health and farming activities.
- Land rights are often at risk from activities within these value chains. Because cocoa farming is often not profitable, the sale of cocoa farms for ASM activities poses serious risks to health, <u>human rights</u>, the environment, and a sustainable future for cocoa and other forms of agriculture.
- The high cost of inputs such as fertilizers, pesticides, weedicides, and spraying equipment, and a lack of cash flow, has multiple impacts on farming families, the environment, and crop yields. There is a danger that more affordable, but more damaging chemicals, will be used in place of those more closely regulated.



#### Social/Socioeconomic

- Miners and farmers stated that low levels of income and precarious incomes increased their and their families' vulnerability to exploitation and abuse in multiple ways.
- Domestic and foreign workers are reportedly moving increasingly into illegal ASM activities rather than their initial aim of working on cocoa farms. This means poor and untrained miners vulnerable to exploitation and abuse.
- Labour shortages due to the lure of ASM and COVID-19 have adversely affected land preparation activities, farm maintenance, and cocoa harvesting. This has disproportionately impacted children, older and less able farmers, and women.
- The absence of monthly salaries or income for farmers and miners threatens their livelihoods and the livelihoods of their families. For example, miners discussed circumstances akin to debt bondage, wherein they borrow from "sponsors" to be able to buy equipment for mining, then must repay these sponsors from any gold prospected. These payments continued to be collected during the COVID-19 pandemic, even though mines were closed and the miners were unemployed.
- Some banks provided farmers with access to basic banking services and mobile money wallets during the COVID-19 pandemic. However, these services did not include business support, such as access to working capital. This prevents farmers from building a

- credit history to access much-needed loans and developing payroll solutions for workers.
- Moreover, farmers given mobile money accounts in the cocoa sector during this period did not always have the literacy or digital literacy skills to understand how to manage their accounts. This left them open to exploitation and abuse by others offering to be "intermediaries".
- Digital exclusion and poor internet coverage were additional challenges preventing farmers in the "last-mile" - remote areas not served by brick-and-mortar banks – from adopting digital payments.
- In May 2022, the Ghanaian Government's e-levy on electronic transactions, including mobile money payments, came into effect. This tax could increase the risk of some already low income farms farmers relying on child labour and/or turning to exploitative migrant labour.
- Accessing credit was a recurring issue for farmers and miners. For those who managed such access, interest rates were said to be too high and the repayment schedules too rigid for such uncertain sectors.



#### Governance

- There was little evidence of internal structures and processes within the local financial sector to manage issues of modern slavery risks.
- Awareness of modern slavery and human trafficking, and of the financial sector's role in identifying, addressing, and preventing this phenomenon, was described by those working in the country as generally low. The sector could better integrate managing the risks of modern slavery into processes for good governance and due diligence.
- Undertaking due diligence on loans and investments can increase the transparency of transactions and labour practices in both cocoa and gold value chains.
- Gold is a crucial investment commodity
  for the financial sector and an essential
  component in the financial reserves of
  nations. During the COVID-19 pandemic, the
  Ghanaian Government stated its intention
  to build up its reserves exclusively from
  domestically produced gold, and globally,
  investors promoted it as a stable commodity.
  Ensuring internal processes for good
  governance and due diligence in relation
  to this value chain is therefore especially
  important.



# RECOMMENDATIONS

All parts of the financial sector have an important role to play in collaborative efforts to identify, address, reduce and prevent modern slavery and human trafficking. The sectors role in supporting environment and human rights due diligence and identifying illicit flows is of great importance, especially relating to these value chains where modern slavery risks should be anticipated, is of great importance:

#### **Recommendation 1.**

Increase sensitization among national and international financial actors and institutions on their role in identifying, addressing, and reducing modern slavery relating to cocoa and gold value chains.

# Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

Improve knowledge and increase awareness of the role of banks and financial service providers in identifying and preventing modern slavery through financial inclusion, applying environment and human rights due diligence to investments, and increasing effective monitoring and reporting of suspicious transactions.

Form partnerships with knowledge ex-perts such as public entities and NGOs.

Actively support <u>public/private</u> <u>partnership (PPP)</u> modern slavery preventative programmes.

#### **Financial Authorities**

(regulators, financial intelligence units)

Increase awareness of the <u>important</u> role financial regulatory authorities and financial intelligence units (FIUs) play in <u>identifying illicit financial</u> flows from slavery and trafficking, especially from the agricultural and extractive sectors.

Increase assessors' and risk analysts' knowledge of modern slavery and financial exclusion and provide guidance on how this knowledge can be applied in risk-based approaches to AML/CFT, e.g., FATF country assessors and FIU/government antimoney laundering/counter-terrorism financing (AML/CTF) National Risk Assessors.

#### **Investors**

(e.g., individuals, stock exchanges, and pension and wealth funds)

Improve knowledge and increase understanding of the <u>role and</u> <u>influence of investors</u> in relation to environment and <u>human rights due</u> <u>diligence</u> in cocoa and gold value chains.

Form partnerships with knowledge expert public entities and NGOs, such as <u>Walk Free</u> and investor coalitions such as <u>Investors Against</u> Slavery and Trafficking.

#### **Recommendation 2.**

Increase the finance sector's participation in collaborative efforts to identify, address and reduce modern slavery

# Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

### Financial Authorities (regulators financial

(regulators, financial intelligence units)

#### Investors

(e.g., individuals, stock exchanges, and pension and wealth funds)

Incorporate modern slavery risks in environmental and human rights due diligence on value chains and ask companies to map their whole value chain to identify red flags and investigate, verify, and manage the identified risks.

Increase finance sector participation in partnerships with other private-sector actors, governments and NGOs/CSOs. This includes PPPs.

Improve the collection and quality of <u>relevant financial information</u> for authorities.

Increase participation or seek to establish <u>PPPs</u>. An example of a PPP in Africa is the <u>South African Money Laundering Integrated Taskforce's trafficking working group.</u>

Incorporate <u>modern slavery risks</u> into environmental and human rights <u>due diligence processes</u> and collaborate with other investors to increase leverage on portfolio companies.

Require companies to map their whole value chains to identify red flags and investigate, verify, and manage the identified risks.

Seek opportunities to engage with partners working to identify, reduce, and prevent modern slavery in cocoa and gold value chains.

#### Recommendation 3.

Improve national and international financial intelligence and AML activities with respect to modern slavery in value chains

# Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

#### **Financial Authorities**

(regulators, financial intelligence units)

#### **Investors**

(e.g., individuals, stock exchanges, and pension and wealth funds)

Increase the finance sector's knowledge of modern slavery risks within the gold and cocoa value chains and the indicators of money laundering related to them.

Increase knowledge of <u>modern</u> <u>slavery risks</u> and indicators <u>of</u> <u>money-laundering</u> related to them.

Work to improve the quality and quantity of modern slavery-related suspicious transaction monitoring and reports.

AML/CTF policy and regulations should be better explained to increase staff awareness of the roles of the finance sector locally (in affected mining and farming communities). This will increase the identification of modern slavery-related transactions and ensure that barriers to financial inclusion do not exist for vulnerable populations.

Support the work of <u>FATF-</u> <u>style regional bodies</u> to ensure consistency. Increase knowledge of <u>modern</u> <u>slavery risks</u> and the indicators of money laundering related to them to address the relevant AML regulations that are applied.

#### Recommendation 4.

Improve access to and usage of financial products and services for vulnerable populations

## Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

Use <u>leverage</u> and influence to support initiatives for <u>vulnerable</u> farmers and miners to have both <u>decent work</u> and access to financial services. This reduces the vulnerability of communities to debt bondage, child labour, and environmental damage.

Increase <u>financial inclusion</u> for affected communities that are vulnerable to slavery and trafficking in appropriate needs-led ways. Specifically address issues of age, gender, and disability; literacy levels; digital inclusion; financial education; economic empowerment; and the needs of small businesses/ entrepreneurs by tailoring humancentred design products, including access to capital and support services.

<u>Financial literacy</u> programmes, including digital finance, especially for those with no or low literacy levels, need to be undertaken alongside financial inclusion drives to on-bank rural communities.

Financial inclusion for vulnerable workers and communities should also be accompanied by improved safeguarding practices and procedures within banks and financial institutions, to guard against exploitation and abuse.

Design <u>insurance products</u> to support small rural businesses to improve <u>climate</u> <u>resilience</u> and reduce vulnerability to modern slavery risks.

Engage with technology providers who can employ alternative data such as mobile behaviour and social media data to provide credit scores to those traditionally considered 'thin-file,' highrisk clients by banks.

#### **Financial Authorities**

(regulators, financial intelligence units)

Support the financial inclusion of vulnerable communities. Explore simplified due diligence/tiered KYC which provides flexibility in a customers' due diligence requirements and mitigates risk by restricting account features e.g. Nigeria's risk assessment

Explore alternative identity systems, including <u>digital</u> <u>identity</u>, which can widen financial inclusion to vulnerable low-income populations.

on Financial Inclusion.

#### **Investors**

(e.g., individuals, stock exchanges, and pension and wealth funds)

Estimate the market gap that exists because <u>vulnerable</u> <u>populations are excluded in bank segments</u>. Use evidence like the financial inclusion database (<u>FINDEX</u>) regional financial access surveys to identify investment opportunities to serve underserved populations e.g. migrants and agricultural workers.

Use <u>leverage</u> to ensure that workers in cocoa and gold value chains have access to financial services to e.g. receive wages.

Make payments more transparent and hold suppliers accountable by using <u>information/data</u> to responsibly invest in and work with technology service providers.

#### Recommendation 5.

Facilitate access to remedy for survivors of modern slavery

## Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

#### **Financial Authorities**

(regulators, financial intelligence units)

#### **Investors**

(e.g., individuals, stock exchanges, and pension and wealth funds)

Develop remediation policies for when modern slavery is found in value chains: useful resources are the International Organization for Migration's (IOM) Guidelines for Remediation for Victims of Exploitation in Extended Mineral Value chains.

Work with companies in the value chain to ensure they provide decent work, including respect for freedom of association and collective bargaining, and insurance. Worker-driven social responsibility programmes are examples of worker-led initiatives that can ensure decent work and also provide remedy for survivors.

<u>Leverage</u> influence on value chain actors to play a catalytic role in remedial measures e.g. through terms of investment and insurance provision.

Develop <u>grievance or complaints</u> mechanisms for when communities, including <u>migrant workers</u>, want to raise modern slavery concerns about the practices of companies being lent to.

Work collaboratively with law enforcement and customs, domestically and internationally, to support prosecutions and take actions to remediate survivors of modern slavery in cocoa and gold sectors (e.g., through asset seizures).

Undertake environmental and human rights due diligence on portfolios, before and during investment, which engages community/survivor knowledge partners, e.g. Sierra Leone's mining law.

Work with companies in value chains to <u>ensure decent work</u> is promoted and upheld.

Identify, address, and remediate those experiencing modern slavery by working with workerled initiatives, such as trade unions and worker-driven social responsibility programmes.

Remediation should include supporting financial literacy, financial inclusion, and economic empowerment.

#### Recommendation 6.

Reduce and manage environmental and social risks as part of due diligence on agricultural and extractive value chains

# Banks and financial service providers

(commercial banks, investment banks, central banks, digital finance, and insurance)

#### **Financial Authorities**

(regulators, financial intelligence units)

#### Investors

(e.g., individuals, stock exchanges, and pension and wealth funds)

Improve transparency for environmental and labour practices in value chains through the provision of appropriate financial products and services.

Explore ways to support the scaling up of <u>microfinance</u> <u>initiatives</u> (MFIs) while managing associated risks e.g. debt-driven land sales and modern slavery.

Support work to improve governance and traceability that also address environmental damage and climate crisis threats. Engage community knowledge experts, especially from vulnerable populations such as youth, migrants, women, disabled people and older people, on the sectoral environmental and social risks to be considered in the AML/CFT National Risk Assessments. Build the capacity of country assessors to work with this risk knowledge.

Effectively apply environmental and human rights due diligence and traceability programmes at all stages of the value chain, considering and mitigating risks to the environment and people.

Develop and support the use of modern slavery guidance for publicly listed companies.

Ensure <u>labour rights and</u>
<u>environmental protection</u> are
upheld through <u>expectations</u>
in the terms of investments,
<u>environmental</u> and human rights
<u>due diligence</u> and remedy.

Build ESG reporting requirements, including modern slavery reporting, into investments and investment loans for responsible financing of these value chains.

Support and direct investments that focus on improving <u>sustainable agricultural</u> and ASM practices which do not exacerbate risks of modern slavery, climate change or environmental damage.

#### Implementing the Recommendations

The FAST initiative is working with the global financial sector to increase awareness of the important role they can play in identifying, addressing, and reducing modern slavery and human trafficking, specifically in the most affected populations of the Global South. The initiative brings governments, regulators, and financial actors (including investors and banks) together with survivors and other vulnerable populations to facilitate an increased understanding of the risks and mobilize action to achieve SDG 8.7. We support international, national, and regional work to achieve this end.



#### **Endnotes**

- <sup>1</sup> International Labour Office (ILO) and United Nations Children's Fund(UNICEF), Child Labour: Global Estimates 2020, Trends and the Road Forward, (New York: ILO and UNICEF, 2021).
- World Bank, Poverty and Shared Prosperity 2020: Reversals of Fortune, (Washington, DC: World Bank, 2020).
- Ritu Bharadwaj, Danielle Bishop, Somnath Hazra, Enock Pufaa and James Kofi Annan, Climate-induced Migration and Modern Slavery: A Toolkit for Policymakers, (London: IIED, 2021); Viviane Clement, Kanta Kumari Rigaud, Alex de Sherbinin, Bryan Jones, Susana Adamo, Jacob Schewe, Nian Sadiq, Elham Shabahat, Groundswell Part 2: Acting on Internal Climate Migration, (Washington, Dc: World Bank, 2021).
- william Avis, Key Drivers of Modern Slavery: K4D Helpdesk Report 855 (Brighton: Institute of Development Studies 2020).
- <sup>v</sup> Gavin Hilson and Clive Potter, "Why Is Illegal Gold Mining Activity so Ubiquitous in Rural Ghana?," African Development Review, Volume 15, Issue 2-3 (2003)





cpr.unu.edu @UNUCPR

767 Third Avenue, Suite 35B New York, NY 10017, USA



www.fastinitiative.org
Twitter: @FinComSlavery



UNITED NATIONS UNIVERSITY

**UNU-INRA** 

Institute for Natural Resources in Africa

https://inra.unu.edu <u>@UN</u>UINRA

International House, Annie Jiage Road, University of Ghana, Legon Campus, Accra, Ghana.