

An analysis of tax abuse, debt, and climate change risk in low-income and lower-middle-income countries

Marisol J Lopez ,¹ Bernadette Anne-Marie O'Hare,^{1,2} Eilish Hannah,¹ Stephen Hall³

To cite: Lopez MJ, O'Hare BA-M, Hannah E, *et al.* An analysis of tax abuse, debt, and climate change risk in low-income and lower-middle-income countries. *BMJ Paediatrics Open* 2022;**6**:e001518. doi:10.1136/bmjpo-2022-001518

Received 21 April 2022

Accepted 13 June 2022

ABSTRACT

Introduction Climate change is exacerbating a pre-existing child rights crisis. Lower- (low- and lower-middle-) income countries have borne 99% of the disease burden from the crisis, of which children under five carry 90%. In response, much of the recent global policy efforts focus on climate action. However, unsustainable levels of debt and tax abuses are draining countries of crucial revenue to handle the crisis. Like the climate crisis, these are primarily facilitated by entities domiciled within higher- (upper-middle- and high-) income countries. This paper aims to review these revenue leaks in countries where children are at the greatest risk of climate change to identify opportunities to increase climate change resilience.

Methods We compiled data on tax abuse, debt service and climate risk for all lower-income countries with available data to highlight the need for intervention at the global level. We used the Climate Change Risk Index (CCRI), developed by UNICEF. Additionally, we used figures for tax abuse and debt service as a percentage of government revenue.

Results We present data on 62 lower-income countries with data on revenue losses, of which 55 have CCRI data. Forty-two of these 62 countries (67.7%) are at high risk of lost government revenues. Forty-one (74.5%) of the 55 countries with CCRI data are at high risk of climate change. Thirty-one countries with data on both (56.4%) are at high risk of both climate change and revenue losses. Most countries at high risk of both are located in sub-Saharan Africa. This shows that countries most in need of resources lose money to arguably preventable leaks in government revenue.

Discussion Higher-income countries and global actors can adopt policies and practices to ensure that they do not contribute to human rights abuses in other countries. Highlighting the impact of a failing global economic model on children's economic and social rights and one which increases their vulnerability to the climate emergency could help drive the transition towards a model that prioritises human rights and the environment on which we all depend.

INTRODUCTION

Global events, including the climate emergency, the pandemic, and ongoing warfare, are negatively impacting children's economic and social rights (hereafter called child

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Climate change primarily impacts lower-income countries and children carry 90% of the resulting disease burden.
- ⇒ Tax abuse and debt service significantly impact countries' ability to provide services essential for fulfilling child rights.

WHAT THIS STUDY ADDS

- ⇒ Two-thirds of lower-income countries (with available data), located mainly in sub-Saharan Africa, are at high risk of lost government revenues.
- ⇒ More than half of lower-income countries (with available data) are at high risk of lost government revenues and climate change. These countries have limited resources to adapt to the risks posed by the climate crisis.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE AND/OR POLICY

- ⇒ Our paper contributes to the conversation of cross-border responsibilities on tax, debt, and climate and the downstream impacts on health and human rights.
- ⇒ These findings will inform human rights advocacy to question policies and practices of higher-income countries and other international actors that harm human and child rights.

rights). Many of these events are people-made, and some global actors impact these more than others.¹ While much of the recent international policy efforts focus on climate action, we argue that low-income and lower middle-income countries (hereafter referred to as lower-income countries) will struggle to implement these without comprehensive global economic restructuring. This paper will discuss how the actions of higher-income countries, which drive climate change and enable leaks from government revenues through tax abuse and debt service in lower-income countries, impact child rights and suggest what the global community must do to curtail these.



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹School of Medicine, University of St Andrews, St Andrews, UK

²University of Malawi College of Medicine, Blantyre, Malawi

³School of Business, University of Leicester, Leicester, UK

Correspondence to

Dr Marisol J Lopez; marisoljay@live.com

Children who lack access to:
 Water (681 million)
 Sanitation (1.3 billion),
 Hygiene (940 million).

Children vulnerable to:
 Polluted air indoors and outdoors (2.1 billion)
 Water scarcity (920 million)
 Heatwaves (820 million)
 Vector-borne diseases (600 million)
 Cyclones (400 million)
 Flooding (570 million)

Figure 1 Climate vulnerabilities faced by children.

The climate emergency amplifying existing environmental risks

Despite climate change being driven primarily by upper-middle- and high-income countries (higher-income), lower-income countries carry the heaviest burden of the climate crisis, including 99% of the resulting disease burden.² Children under 5, who are especially vulnerable to the spread of diseases as they are still developing, carry 90% of this burden.² Thus, those who contributed least to the crisis will suffer the most over the coming decades.

Existing environmental hazards, which are long-standing child rights abuses, will be amplified by climate change in those countries least able to invest in adaptation measures. Millions of the 2.35 billion children aged under 18 are already highly vulnerable to environmental hazards due to a lack of access to safe services (see [figure 1](#)).³ These facts have resulted in the United Nations Children Fund and several paediatric associations stating that the climate crisis is a child's rights crisis.^{3–5} Climate resilience requires financial resources. However, many countries also lose revenue through avoidable avenues, such as debt service and tax abuse.

The economic fallout amplifying existing drains on government revenue

The country's government where a child lives is responsible for ensuring the critical services for child health (ie, water, sanitation and education) is available to ensure child rights are met. These services are among the reasons for the reduction in mortality since 1990. The international community has agreed that everyone should access these services immediately and must cooperate to ensure every child realises their rights. These are also fundamental economic and social human rights as outlined in Article 24 of the United Nations Convention on the Rights of the Child (UNCRC).⁶ Many elements of the UNCRC have been adopted within the 17 Sustainable Development Goals (SDGs).⁷

While strategies to improve child well-being must be multisectoral and led by the government of each country,

many have limited ability to ensure their citizens can access critical services, much less adapt those services to become resilient to the impact of the climate emergency. The additional pressure of the pandemic has weakened economies, decreased tax revenues and increased debt, all of which will stretch government budgets.¹ Natural disasters resulting from the climate emergency, coupled with the recent COVID-19 pandemic, have led to a deterioration in many countries' macroeconomic situation, making it more challenging to recover from climate emergencies and adapt for future emergencies.^{5,8}

Curtailling major leaks from government revenues, such as tax abuse and debt service, has been identified as an opportunity to free fiscal space to spend on critical services and, thus, increase the fulfilment of child rights.^{9,10} So, all governments, especially lower-income countries, must be supported and, at the least, not obstructed to provide the multisectoral interventions as indicated by the SDGs.

Tax abuse

When corporations commit tax abuses (avoidance and evasion), this reduces government revenues in the countries of production. Corporate income tax constitutes about 12% of government revenues in lower-income countries and about 7% in higher-income countries.¹¹ Therefore, corporate tax abuse has a much more significant impact in lower- than higher-income countries. A review of the rules and regulations of countries in the Organisation for Economic Cooperation and Development (OECD) and their dependencies found that 70% of the vulnerability to international corporate tax abuse is attributable to OECD countries.¹²

A model of the relationship between government revenue, the six dimensions of quality of governance and fundamental rights was used to study the human potential of tackling tax abuse. The study found that an increase in government revenue equivalent to global tax abuses would be associated with 36 million people accessing sanitation, 18 million drinking water and almost 7 million children attending school for an extra year. Additionally, this increase would be associated with over 600 000 children and nearly 80 000 mothers surviving over 10 years.¹⁰

Sovereign debt

While responsible lending can drive development, many countries are in debt distress. The diversion of resources from critical services through debt service harms health. Debt relief strategies, such as the Heavily Indebted Poor Countries Initiative, restrict access to further multilateral loans and have resulted in beneficiary governments seeking loans from commercial creditors. Combined with a lowering of the volume of concessional loans from bilateral creditors (ie, loans created between governments and under conditions more favourable to the beneficiary than market loans), this has resulted in an unsustainable increase in debt over the last decade.⁸ In 2020, for instance, sub-Saharan Africa spent an average of

15% of government revenue on external debt service.¹³ Commercial debt has proven to be an issue due to a lack of restructuring options, highly complex bond or investment structures, and a lack of transparency regarding due diligence checks to ensure the debt is sustainable, resulting in the creation of high-risk loans.¹⁴ Climate vulnerability increases interest rates, making it more difficult to invest in adaptation, further increasing volume and frequency of loans.¹⁵

The climate emergency and climate finance

Despite these high debt levels, 73% of climate finance to lower-income countries are loans, exacerbating their already stretched budgets. Also, while adaptation finance could help make vulnerable populations resilient to the climate emergency, around two-thirds of climate finance is allocated to mitigation.¹⁶ Countries considered at severe risk of the climate emergency tend to receive little funding to protect them from these impacts. For instance, the Caribbean only receives 32% of climate financing for adaptation.¹⁷ Yet, adaptation can improve health and increase survival,¹⁸ such as strengthening healthcare systems and weather-resilient environment systems.¹⁹ Additionally, increasing girls' education has a significant impact on the reduction of emissions.²⁰ These strategies can also contribute to long-term resilience strategies and demonstrate that the drive towards human rights and climate action is intrinsically linked. We should, thus, pursue holistic models, which take this into consideration.

A perfect storm

Tax abuse, the climate emergency and debt service are reflective of the neoliberal economic model, which has facilitated the increase of inequality and ecological overshoot, allowing human demand for resources to exceed our planet's regenerative capacity. Additionally, these issues exceed nation-states' political and regulatory capacities.²¹ The issues discussed here particularly impact lower-income countries and have been attributed to the actions or omissions of higher-income countries and global actors. Yet, there is a gap in the global governance of sovereign debt and tax abuse.²²

This paper aims to review leaks from government revenues through tax abuse and debt service as a percentage of total government revenue in countries where children are at the greatest risk of climate change to identify opportunities to increase climate change resilience.

METHODS

We compiled data on tax abuse, debt service and climate risk for all lower-income countries. The United Nations Children Fund (UNICEF) developed the Children's Climate Risk Index (CCRI) using multiple indicators that reflect children's vulnerability to current environmental hazards and their exposure to climate change.²³ The

index ranges from 1 to 10, and children living in countries with an index of 7.1–10 are considered at extremely high risk, and those living in countries with an index of 5.5–7.0 are deemed high risk.

We used figures on tax abuse from the State of Tax Justice 2020 report.²⁴ These figures were converted to a percentage of government revenue, using revenue data from the World Bank.²⁵ The figures on debt service as a percentage of government revenue were taken from the Jubilee Debt Campaign's Debt Data Portal in 2021, which uses debt data from the IMF's and the World Bank's debt sustainability analyses for 2020.^{26,27} We added these together to demonstrate the severity of the losses in revenue, and consider combined losses >10% to be at high risk of compromising government spending and child rights.

We created a table to demonstrate how many countries are at high risk of climate change, lost government revenues or both. Additionally, we visualised the data using ArcGIS to demonstrate the geographic distribution of affected countries.

RESULTS

There are 82 lower-income countries in the world. There is CCRI data on 74 of these countries. We have data on tax abuse and debt service as a percentage of government revenue for 62 and 66 countries, respectively. We have data for all three on 55 countries. We only included the 62 countries which had data on both tax abuse and debt service.

Tables 1 and 2 show the percentage of government revenue (excluding grants) that governments spend on debt service and lose to tax abuses each year, and the CCRI. Forty-two of the 62 countries with data on both tax abuse and debt service (67.7%) are at high risk of lost government revenues, losing $\geq 10\%$ of government revenue. Forty-one (74.5%) of the 55 lower-income countries with CCRI data are at high risk of climate change with a CCRI ≥ 5.5 . Thirty-one of the countries with data on both (56.4%) are at high risk of both lost government revenues and climate change.

Figure 2 presents this data visually on a map and demonstrates that most countries at high-risk are located in sub-Saharan Africa.

DISCUSSION

Many countries where children are at increased risk of the climate emergency also lose large proportions of their revenue to debt service and tax abuse. Combining tax abuse and debt service as a percentage of government revenue demonstrates that many lower-income countries lose vast proportions of their budget. Forty-two lower-income countries lose more than 10% of government revenue to these two drains. Figure 2 demonstrates that most sub-Saharan African countries are at high risk both through climate change and lost government revenues.

**Table 1** Tax abuse, debt service and the children's climate emergency risk index—countries at high risk of revenue losses

Country	Tax abuse (2016/2017) as % of government revenue	Debt service (2020) as a % of government revenue	Debt classification	Income level	Heavily indebted poor country (HIPC)	Tax abuse and debt service combined as a % of government revenue	Children's climate risk index
Angola	12.1	45.9	In debt crisis	LMIC	No	58	7.9
Bangladesh	3.91	11.9	No risk identified	LMIC	No	15.81	7.6
Benin	0.14	10	Risk of public and private debt crisis	LMIC	Yes	10.14	7.6
Bhutan	0.02	49	In debt crisis	LMIC	No	49.02	3.8
Cameroon	2.24	17	In debt crisis	LMIC	Yes	19.24	7.9
Cape Verde	0.25	14.4	In debt crisis	LMIC	No	14.65	n/a
Central African Republic	26.12	10.5	Risk of public debt crisis	LIC	Yes	36.62	8.7
Chad	25.61	11.5	In debt crisis	LIC	Yes	37.11	8.5
Congo DRC	4.2	34.1	In debt crisis	LIC	Yes	38.3	8
Congo, Rep.	0.35	11.1	Risk of public and private debt crisis	LMIC	Yes	11.45	6.4
Cote d'Ivoire	4.12	14.1	Risk of public and private debt crisis	LMIC	Yes	18.22	7.5
El Salvador	2.45	16.5	In debt crisis	LMIC	No	18.95	5.1
The Gambia	97.2	26.6	In debt crisis	LIC	Yes	123.8	6.8
Ghana	1.92	50.2	In debt crisis	LMIC	Yes	52.12	6.9
Guinea-Bissau	11.88	4.7	Risk of private debt crisis	LIC	Yes	16.58	8.4
Haiti	4.07	14.1	Risk of public and private debt crisis	LMIC	Yes	18.17	7.3
Honduras	4.88	15.7	In debt crisis	LMIC	Yes	20.58	5.5
Kenya	5.4	14.5	Risk of public debt crisis	LMIC	No	19.9	6.3
Kyrgyz Republic	0.77	10.4	Risk of public and private debt crisis	LMIC	No	11.17	4.5
Laos	4.69	31.1	In debt crisis	LMIC	No	35.79	6.7
Lesotho	26.1	7.4	No risk identified	LMIC	No	33.5	5.4
Liberia	50.75	10.4	Risk of public and private debt crisis	LIC	Yes	61.15	7.5
Madagascar	5.68	8.2	Risk of private debt crisis	LIC	Yes	13.88	7.9
Mauritania	0.9	14.8	In debt crisis	LMIC	Yes	15.7	6.7
Mongolia	1.15	19.4	In debt crisis	LMIC	No	20.55	4.2
Morocco	1.67	15.8	In debt crisis	LMIC	No	17.47	5.4
Mozambique	11.23	12.7	In debt crisis	LIC	Yes	23.93	7.9
Niger	1.01	10.2	Risk of public and private debt crisis	LIC	Yes	11.21	8.2
Nigeria	36.51	7.1	No risk identified	LMIC	No	43.61	8.5
Papua New Guinea	0.69	22.3	In debt crisis	LMIC	No	22.99	7
Philippines	4.06	6.6	No risk identified	LMIC	No	10.66	7.1
Rwanda	4.07	19.2	In debt crisis	LIC	Yes	23.27	5.7
Senegal	4.07	16.1	In debt crisis	LMIC	Yes	20.17	7.5
Sierra Leone	17.12	18.1	In debt crisis	LIC	Yes	35.22	7.4
Sri Lanka	0.88	37.5	In debt crisis	LMIC	No	38.38	5.4
Tanzania	4.1	13.1	Risk of public and private debt crisis	LMIC	Yes	17.2	6.7

Continued

Table 1 Continued

Country	Tax abuse (2016/2017) as % of government revenue	Debt service (2020) as a % of government revenue	Debt classification	Income level	Heavily indebted poor country (HIPC)	Tax abuse and debt service combined as a % of government revenue	Children's climate risk index
Togo	4.16	6.9	Risk of private debt crisis	LIC	Yes	11.06	7.6
Tunisia	1.67	21.5	In debt crisis	LMIC	No	23.17	3.6
Uganda	2.48	14.1	Risk of public and private debt crisis	LIC	Yes	16.58	6.8
Ukraine	1.15	13.5	Risk of public and private debt crisis	LMIC	No	14.65	3.8
Vanuatu	2.61	8.2	Risk of public and private debt crisis	LMIC	No	10.81	n/a
Zambia	2.83	33.5	In debt crisis	LIC	Yes	36.33	6.6

LIC, Low-Income Country; LMIC, Lower-Middle-Income Country.

The financial mechanisms that would drive the realisation of a clean and healthy environment for all children

The impacts of the climate emergency undermine child rights.²⁸ Therefore, we must curtail lost government revenues where possible to allow for the freeing of fiscal space to combat the impact of the climate crisis. Broadly speaking, lost government revenues include those which could be curtailed with political decisions by domestic governments and decisions by the international community.

At the domestic level, this includes reviewing both policies and revenue collection administration.

However, in all countries, policy changes may be constrained by political influences from those who benefit from the status quo. The two main gaps in the global economic governance architecture are the governance of tax affairs and sovereign debt at the international level.²² This is increasingly recognised within international policy.

In the recent United Nations report A/76/167, the Independent Expert stated that debt and tax abuse pose a significant threat to human rights.²⁹ This argument was furthered in the Independent Expert's report A/HRC/49/47 to the 49th session of the Human Rights Council, where climate change was linked to these financial mechanisms to highlight the heightened need for restructuring in an era of climate emergency.³⁰ The recent review of the Intergovernmental Panel on Climate Change has also recognised that debt poses a barrier to economic and climate resilience.³¹

There must be stricter regulatory frameworks that ensure that debt is only allocated sustainably, transparently and where absolutely necessary. Commercial lenders must be included within this legislation and must be held accountable for ensuring that loans meet these criteria. The alleviation of unsustainable debt with grants coupled with debt-for-climate swaps, which allow

for debt relief coupled with conditions for environmental measures, could allow for some immediate relief.³²

Higher-income countries are estimated to be responsible for 99.4% of the losses as a result of corporate tax abuse and, as with climate change, it is the lower-income countries that are most impacted.³³ Higher-income country's tax policies have negative cross-border impacts on lower-income countries. Examples include the provision of secrecy and low tax jurisdictions, which facilitate tax abuse. Tax treaties which generally curtail the amount of tax lower-income countries receive from multinational corporations facilitate these harmful impacts. The passivity of governments and enablers, including law firms, accountants, bankers and estate agents based in higher-income countries, facilitate these child rights abuses.^{34 35} Therefore, international legislation must hold countries accountable for ensuring that individuals and corporations operating from within their boundaries conduct their business in ways that do not harm child rights and, by extension, all human rights.

Duty bearers

The issues discussed here, namely, debt service, tax abuse and the climate emergency, particularly impact lower-income countries and, particularly, sub-Saharan Africa (see figure 1). Higher-income countries are responsible for the bulk of greenhouse gas emissions. The secrecy and low tax jurisdictions that facilitate tax abuses and corruption and key lenders are also based within or in territories of higher-income countries. Tax abuse and debt service drain scarce government budgets and impact public services, mainly affecting the most vulnerable in society. This results in millions not accessing their economic and social human rights and increases vulnerability to the climate emergency. State parties must act when the actions or omissions of banks and businesses based on their territory are responsible for human rights abuses overseas.

**Table 2** Tax abuse, debt service, and the children's climate emergency risk index—countries at low risk of revenue losses

Country	Tax abuse (2016/2017) as % of government revenue	Debt service (2020) as a % of government revenue	Debt classification	Income level	Heavily indebted poor country (HIPC)	Tax abuse and debt service combined as a % of government revenue	Children's climate risk index
Afghanistan	0.11	1.9	High	LIC	Yes	2.01	7.6
Algeria	0.71	0.2	No risk identified	LMIC	No	0.91	4.6
Bolivia	1.51	8.4	Risk of private debt crisis	LMIC	Yes	9.91	5
Burkina Faso	0.11	5.6	Risk of private debt crisis	LIC	Yes	5.71	7.6
Cambodia	0.68	6.9	Risk of private debt crisis	LMIC	No	7.58	6.5
Comoros	0.28	8.4	Risk of public debt crisis	LMIC	Yes	8.68	n/a
Eswatini	1.16	4.5	No risk identified	LMIC	No	5.66	5.2
Guinea	0.26	4.4	No risk identified	LIC	Yes	4.66	8.4
India	1.85	2.8	No risk identified	LMIC	No	4.65	7.4
Kiribati	0.1	2.4	No risk identified	LMIC	No	2.5	n/a
Malawi	3.18	5.4	Risk of public and private debt crisis	LIC	Yes	8.58	6.7
Mali	0.55	9.1	Risk of private debt crisis	LIC	Yes	9.65	7.3
Micronesia	0.2	4.5	N/A	LMIC	No	4.7	n/a
Myanmar	0.03	6.4	Risk of private debt crisis	LMIC	No	6.43	7.1
Nepal	0.18	3.2	Risk of public and private debt crisis	LMIC	No	3.38	6.1
Sao Tome and Principe	0.39	8.4	Risk of public and private debt crisis	LMIC	Yes	8.79	n/a
Solomon Islands	0.53	1.9	Risk of private debt crisis	LMIC	No	2.43	5.2
Timor-Leste	0.22	1	Risk of private debt crisis	LMIC	No	1.22	n/a
Uzbekistan	0.96	6.9	Risk of private debt crisis	LMIC	No	7.86	5.4
Vietnam	1.21	8.5	No risk identified	LMIC	No	9.71	6.8

LIC, Low-Income Country; LMIC, Lower-Middle-Income Country.

Cross-border responsibilities for child rights

Holding countries accountable for economic activity which harms human rights abroad is increasingly being recognised. In a historic ruling in 2021, the United Nations Committee on the Rights of the Child concluded that countries bear responsibility for the harmful impact of their carbon emissions on child rights globally.³⁶ Similarly, in 2012, the Human Rights Council called on the international community to make every effort to alleviate the external debt burden of developing countries to realise their economic and social human rights. They also noted the impact of structural adjustment on the potential for sustainable economic growth, which further compromises rights.²⁹

International human rights law assigns duties to states, not companies, and international tribunals rarely extend jurisdiction over legal persons or companies. However, in 2011, the United Nations Human Rights Council endorsed the UN Guiding Principles that address the roles of businesses (including banks) concerning human rights and states that all companies should respect human rights. Respect includes expressing their commitment, conducting human rights due diligence reviews, and providing a remedy for human rights abuses.³⁷ In addition, when a business causes or contributes to human rights abuses, it must cease harmful actions.³⁸

Furthermore, the United Nations Committee on Economic Social and Cultural Rights General Comment

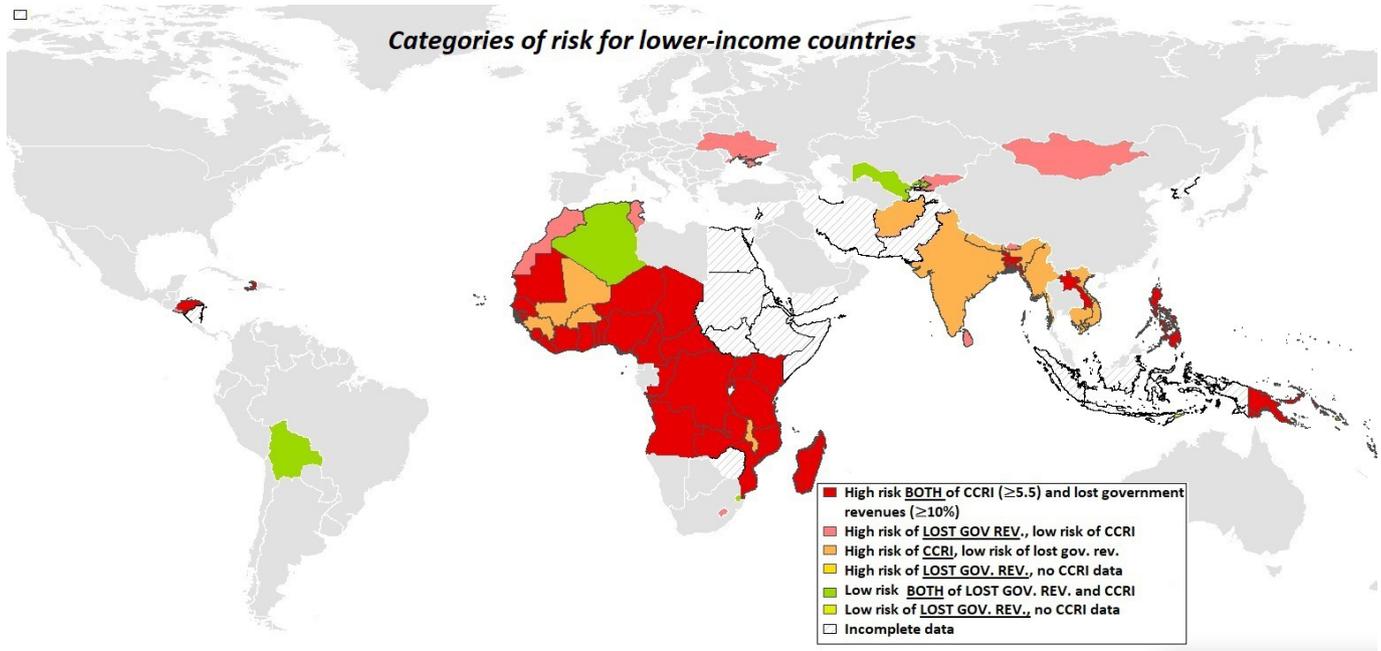


Figure 2 Risks to tax abuse, debt service and climate change

Number 24 emphasises that states are responsible for the action of companies and banks domiciled on their territory:

States Parties are required to take the necessary steps to prevent human rights violations abroad by corporations domiciled in their [...] jurisdiction [...] without infringing the sovereignty or diminishing the obligations of the host States under the Covenant.³⁹

A recent submission to the UNCRC raised concerns about Ireland's tax policies, which may reduce government revenue in lower-income countries and, thus impact child rights overseas.⁴⁰ The UNCRC asked the Irish government to:

Ensure that tax policies do not contribute to tax abuse by companies operating in other countries, leading to a negative impact on the availability of resources for the realisation of children's rights in those countries.⁴¹

By holding global actors accountable, we can move towards a more equitable global system that ensures child rights are met.

CONCLUSION

International rights organisations must hold higher-income countries accountable for the actions of multinational corporations domiciled on their territory. The downstream, cross-border human rights consequences of the policies and practices of higher-income countries and other global actors must be recognised and be a driving factor both within international human rights

law and national legislation. Highlighting the impact of a failing economic system of global governance on children's economic and social rights could help drive the transition towards a model that prioritises human rights and the environment on which they, and we all, depend.

Twitter Marisol J Lopez @mjlopez222

Contributors MJL: accepts full responsibility for the finished work and/or the conduct of the study, had access to the data, and controlled the decision to publish. Also responsible for conception and design, analysis, revision, final approval, accountability for accuracy and integrity. BA-MO'H: conception and design, analysis, revision, final approval, accountability for accuracy and integrity. EH: conception and design, analysis, revision, final approval, accountability for accuracy and integrity. SH: conception and design, analysis, revision, final approval, accountability for accuracy and integrity.

Map disclaimer The inclusion of any map (including the depiction of any boundaries therein), or of any geographic or locational reference, does not imply the expression of any opinion whatsoever on the part of BMJ concerning the legal status of any country, territory, jurisdiction or area or of its authorities. Any such expression remains solely that of the relevant source and is not endorsed by BMJ. Maps are provided without any warranty of any kind, either express or implied.

Competing interests No, there are no competing interests.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available in a public, open access repository.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Marisol J Lopez <http://orcid.org/0000-0003-0293-7334>



REFERENCES

- 1 O'Hare B, Lopez M, Hannah E. Higher-income countries and global child health. *Paediatr Child Health* 2022;32.
- 2 Patz JA, Gibbs HK, Foley JA. Climate change and global health: quantifying a growing ethical crisis original contribution Ó 2007. *EcoHealth* 2007;4:397–405.
- 3 UNICEF. *The climate crisis is a child's rights crisis*, 2021.
- 4 The Royal College of Paediatrics and Child Health (RCPCH). The impact of climate change on global child health - position statement. *Ambul Pediatr* 2003;3:44–52.
- 5 Etzel RA, Ding J, Gil SM, et al. Pediatric societies' declaration on responding to the impact of climate change on children. *J Clim Chang Health* 2021;4:100038.
- 6 United Nations. The United Nations convention on the rights of the child, 1990. Available: https://www.unicef.org.uk/wp-content/uploads/2010/05/UNCRC_united_nations_convention_on_the_rights_of_the_child.pdf
- 7 United Nations. The sustainable development goals report 2020, 2020. Available: <https://unstats.un.org/sdgs/report/2020/>
- 8 Ferry M, Raffinot M, Venet B. Does debt relief “irresistibly attract banks as honey attracts bees”? Evidence from low-income countries' debt relief programs. *Int Rev Law Econ* 2021;66:105978.
- 9 Hall S, Lopez M, Murray S, et al. Government revenue, quality of governance and child and maternal survival. *Appl Econ Lett* 2021:1–6.
- 10 O'Hare BAM, Lopez MJ, Mazimbe B, et al. Tax abuse—The potential for the sustainable development goals. *PLOS Glob Public Health* 2022;2:e0000119.
- 11 Moore M. Obstacles to increasing tax revenues in low-income countries. In: *International centre for Tax and development working paper 15*. 37. SSRN, 2013.
- 12 The Tax Justice Network. Tax Justice & Human Rights: The 4 Rs and the realisation of rights, 2021. Available: <https://taxjustice.net/2021/07/06/tax-abuse-and-human-rights/> [Accessed 9 Jul 2021].
- 13 Campaign JD, Portal DD, 2021. Available: <https://data.jubileedebt.org.uk/> [Accessed 25 May 2021].
- 14 Connelly S. The tuna bond scandal: the continued lack of transparency in bank-to-state credit facilities agreements. *J Int Econ Law* 2021.
- 15 The Lancet Planetary Health. A tale of two emergencies. In: *Lancet planet health*. , 2020: 4, e86.
- 16 Independent Expert Group on Climate Finance. *Delivering on the \$100 Billion Climate Finance Commitment and Transforming Climate Finance Independent Expert Group on Climate Finance*. 70. United Nations, 2020. https://www.un.org/sites/un2.un.org/files/100_billion_climate_finance_report.pdf
- 17 Perry KK. The new 'bond-age', climate crisis and the case for climate reparations: unpicking old/new colonialities of finance for development within the SDGs. *Geoforum* 2021;126:361–71.
- 18 Watts N, Amann M, Ayeb-Karlsson S, et al. The Lancet countdown on health and climate change: from 25 years of inaction to a global transformation for public health. *Lancet* 2018;391:581–630.
- 19 Sharifi A, Pathak M, Joshi C, et al. A systematic review of the health co-benefits of urban climate change adaptation. *Sustainable Cities and Society* 2021;74:103190.
- 20 Sims K. Education and climate change. *A Student's Guide to Educ Stud* 2021:118–28.
- 21 Rees WE. Ecological economics for humanity's plague phase. *Ecological Economics* 2020;169:106519–118. doi:10.1016/j.ecolecon.2019.106519
- 22 Antonio Alonso J. Two major gaps in global governance: international Tax cooperation and sovereign debt crisis resolution. *J Glob Dev* 2019.
- 23 United Nations Children's Fund (UNICEF). *The climate crisis is a child rights crisis*. New York, 2021. <https://www.unicef.org/reports/climate-crisis-child-rights-crisis>
- 24 Tax Justice Network. The state of Tax justice 2020: Tax justice in the time of COVID-19; 2020. <https://taxjustice.net/reports/the-state-of-tax-justice-2020/>
- 25 The World Bank. World development indicators, 2021. Available: <https://databank.worldbank.org/source/world-development-indicators> [Accessed 03 May 2022].
- 26 Campaign JD. Debt data portal, 2021. Available: <https://data.debtjustice.org.uk/> [Accessed 01 September 2021].
- 27 Fund IM. Debt Sustainability Analysis - Low Income Countries, 2021. Available: <https://www.imf.org/en/Publications/DSA>
- 28 United Nations Office of the High Commissioner for Human Rights/A/HRC/35/13. Analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child : report of the Office of the United Nations High Commissioner for Human Rights; 2017: 18. <https://digitallibrary.un.org/record/1298393?ln=en>
- 29 United Nations Human Rights Council. *The effects of foreign debt and other related international financial obligations of states on the full enjoyment of all human rights, particularly economic, social and cultural rights*. A/HRC/RES/20/10, 2012.
- 30 UN Independent Expert - Attiya Waris. *Taking stock and identifying priority areas: a vision for the future work of the mandate holder A/HRC/49/47*, 2021.
- 31 Schipper LF, Revi A, Preston BL. *Chapter 18: climate resilient development pathways*, 2021. https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_Chapter18.pdf
- 32 Houghton H, Keane J. Alleviating debt distress and advancing the sustainable development goals. *Sustainable Development* 2021;29:528–36.
- 33 Tax Justice Network. The state of Tax justice 2021, 2021. Available: https://taxjustice.net/wp-content/uploads/2021/11/State_of_Tax_Justice_Report_2021_ENGLISH.pdf
- 34 Bullough O. *Money land*. London: Profile Books, 2018.
- 35 O'Boyle B, Allen K. *Tax Haven Ireland*. London: Pluto Press, 2021.
- 36 Ali H, Firth A, Leaf A, et al. The climate crisis is also a child rights crisis. *Arch Dis Child* 2022;107:417–418.
- 37 Office of the United Nations High Commissioner for Human Rights. *Guiding principles on business and human rights guiding principles on business and human rights*. New York and Geneva, 2011.
- 38 United Nations Environment Programme Finance Initiative, Foley Hoag LLP. Banks and human rights: a legal analysis, 2015. Available: <https://www.unepfi.org/fileadmin/documents/BanksandHumanRights.pdf>
- 39 Committee on Economic Social and Cultural Rights (CESCR). *General Comment No. 24 on state obligations under the International covenant on economic, social and cultural rights in the context of business activities*. 24. E/C.12/GC/24, 2017.
- 40 Ireland AA, Aid C I, Network GLA. Ireland 's Responsibility for the Impacts of Cross - border Tax Abuse on the Realisation of Children's Economic, 2020 Social and Cultural Rights. Available: https://c5e65ece-003b-4d73-aa76-854664da4e33.filesusr.com/ugd/14ee1a_21d5fea7778c408db4ba8901648f6052.pdf [Accessed 18 Jun 2021].
- 41 United Nations Committee on the Rights of the Child. *List of issues prior to submission of the combined fifth and sixth reports of Ireland*, 2020.