



**Interpeace**

INTERNATIONAL ORGANIZATION  
FOR PEACEBUILDING

**S|E|B**

# **Peace Bonds** Feasibility study

Assessing the potential of a new asset class  
that can lower risk and enhance peace.

January 2022

# **Peace Bonds**

## Feasibility study

**Assessing the potential of a new asset class  
that can lower risk and enhance peace.**

This report has been funded by UK Aid (the UK government).  
The views expressed do not necessarily reflect the UK  
government's official policies.



## About the study

This is a joint study by Interpeace, an international peacebuilding organization, and Skandinaviska Enskilda Banken AB (SEB), a leading Nordic banking institution. It studies the process, mechanisms, conditions and commercial applications that would be necessary to establish a new asset class of Peace Bonds. The report is part of Finance for Peace, a larger initiative started by Interpeace, that aims to create the enabling conditions for a global peace bond market. It builds on existing work by Interpeace, SEB and other partners to develop new financial instruments that will attract private capital to peacebuilding and make current and future investment capital more conflict sensitive and peace responsive.

The study has been supported by the United Kingdom Foreign, Commonwealth and Development Office (FCDO).

## About Interpeace

Interpeace is an international organization for peacebuilding. It tailors its approach to each society and ensures that its work is locally designed and driven. Through local partners and its own local teams, Interpeace jointly develops peacebuilding programmes based on extensive consultation and research. Interpeace helps establish processes of change that promote sustainable peace, social cohesion and resilience. The organization's work is designed to connect and promote understanding between local communities, civil society, governments and the international community.

Interpeace also assists the international community – especially the United Nations – to play a more effective role in peacebuilding based on the organization's expertise in field-based work at the grassroots level. This is achieved primarily through contributing innovative thought leadership and fresh insights to contemporary peacebuilding policy. This assistance to the international community is also achieved by Interpeace's 'peace responsiveness' work, which provides advice and practical support to other international organizations (especially those in the security, development and humanitarian aid sectors) so that they adapt their own work systemically to address conflict dynamics and strengthen peace dynamics.

Interpeace is headquartered in Geneva, Switzerland and has offices around the world. For more information about Interpeace, please visit [www.interpeace.org](http://www.interpeace.org).

## About SEB

SEB is a Nordic banking institution that has partnered with Interpeace to encourage the financial industry to support building this new asset class. SEB is a pioneer in the Green Bond market which has issued more than USD one trillion in Green Bonds since its inception in 2008.

SEB was founded in 1856. Its headquarters are in Stockholm, Sweden. For more information about SEB, please visit [www.sebgroup.com](http://www.sebgroup.com).

## Acknowledgements

The study was developed by staff of Interpeace, staff of SEB, and external advisers. Particular contributions were made by Scott Weber, Daniel Hyslop and Elio Azar of Interpeace, and Eric Hoh and Dr. Gregor Vulturius of Skandinaviska Enskilda Banken AB (SEB), alongside special advisers Dr. Peter Higgs and Yusuf Merchant. We also acknowledge the work of Eric Hoh and Dr Peter Higgs from Tactical Global Management Limited (TGM), Special Advisers to Interpeace, who provided critical guidance and support to the wider Finance for Peace initiative. We thank the Foreign, Commonwealth and Development Office (FCDO), and Cedrik Schurich in particular, for supporting the research and providing substantive input and direction.

## Citation guide

Interpeace and SEB (2022), ***Peace Bonds - Feasibility study***. Assessing the potential of a new asset class that can lower risk and enhance peace. Edition 1, January 2022, Geneva

# Contents

---

<b>5</b>	<b>Executive summary</b>
<b>8</b>	<b>Key findings from the feasibility study</b>
<hr/>	
<b>11</b>	<b>1. Introduction and rationale of the feasibility study</b>
<b>13</b>	Why peace bonds?
<b>15</b>	Defining a peace bond
<b>15</b>	Clarifying nomenclature: peace bonds
<b>17</b>	Understanding peace
<b>18</b>	Guidance for public and private sector investment and peace
<b>20</b>	What is a peace impact?
<b>23</b>	Indicative principles and standards for peace bonds
<b>28</b>	Peace enhancing mechanisms (PEMs)
<hr/>	
<b>31</b>	<b>2. Options for peace bond structures</b>
<b>33</b>	The peace bond premium
<b>34</b>	Commercial peace bonds
<b>35</b>	Blended and government peace bonds
<b>36</b>	Typology of intended peace impacts that peace bonds can achieve
<hr/>	
<b>39</b>	<b>3. Key stakeholders and issuance of peace bonds</b>
<b>39</b>	The principal stakeholders in peace bond structures
<b>41</b>	Peace bond issuance process
<b>43</b>	Fiduciary considerations
<b>45</b>	Potential risks and management options for peace bond investors and issuers
<b>46</b>	Transaction costs
<hr/>	
<b>49</b>	<b>4. Market analysis of peace bond opportunities</b>
<b>49</b>	Thematic sectors on which peace bonds will focus
<b>73</b>	Potential early and long-term investors in peace bonds
<hr/>	
<b>76</b>	<b>5. Feasibility case: Ghana-Burkina Faso renewable energy peace bond</b>
<b>76</b>	Summary
<b>77</b>	Burkina Faso energy overview and background
<b>78</b>	Burkina Faso's conflict dynamics and energy
<b>81</b>	Commercial appraisal and peace enhancement prospects of the Ghana-Burkina Faso renewable energy peace bond
<b>82</b>	Potential peace enhancement mechanisms
<b>86</b>	Summary of the structure of the Ghana-Burkina Faso peace bond
<b>87</b>	The financial impact of peace enhancing mechanisms
<b>88</b>	The conflict risk premium, and the net realisable value from peacebuilding and PEMs
<b>96</b>	Relevant legal frameworks
<hr/>	
<b>99</b>	<b>References</b>

# Executive summary

**Risks related to conflict are the major barrier to unlocking the investment that is required to realise the Sustainable Development Goals (SDGs) in developing countries. Paradoxically, peacebuilding actions and approaches that can lower these risks are badly underfunded and are not aligned with potential investment flows. This vast market failure needs to be addressed if the world is to achieve sustainable peace and development for billions of people living in countries in need.**

Interpeace, with SEB and other partners, is working to address this problem by developing a new asset class called Peace Bonds. Peace bonds are a proposed new type of bond instrument whose proceeds are applied exclusively to finance new or existing projects that achieve verifiable peace impacts, oriented by a robust set of new principles and standards. This feasibility report builds on a real investment case study to show how potential peace bond structures can create new forms of value by directly lowering the project risks of investments and improving sustainable development for communities living in fragile and conflict affected places.

There is an urgent need to find new ways to finance peace and lower the risks of investing in places that are fragile and affected by conflict. Currently, the SDGs face a significant financing gap. Official development assistance (ODA) currently meets only 30% of the estimated USD 500bn that low-income countries need per year. While blended finance approaches are promising, despite an estimated USD 600bn pipeline, there are no investments at scale for SDG 16 (peace, justice and strong institutions) and it is not clear how much existing blended investment is conflict sensitive, let alone peace responsive. Finally, due to Covid-19 as well as risks related to uncertainty and conflict, investment flows to Africa are currently at a 15-year low and greenfield projects in developing settings are down by 42%.<sup>1</sup> Since public sector finances are stretched, solutions are needed that impact peace at scale, are private sector-led, and can create additionality and new forms of value.

Peace bonds can create additional value in two ways. (1) Proposed peace bond principles and standards will provide certification to show that peace bond-aligned investment verifiably deploys capital in ways that are peace responsive, by doing no harm and involving communities in a manner that ensures that investments target real needs and, where possible, contribute to peace. These elements are important for building stakeholder trust in an investment and signalling to investors that peace impacts can be verified. (2) Peace Enhancing Mechanisms (PEMs), embedded and financed by the proceeds of a peace bond, directly impact peace and address key project risks, with the result that they (a) lower discount rates on peace bonds and (b) improve project cash flows, which can

---

<sup>1</sup> United Nations Conference on Trade and Development (2021), 'World Investment Report 2021, Investing in Sustainable Recovery'. At: [https://unctad.org/system/files/official-document/wir2021\\_en.pdf](https://unctad.org/system/files/official-document/wir2021_en.pdf).

further lower peace bond discount rates. These benefits can improve net present values (NPVs) and market premiums and create additionality while leveraging significant private finance for peacebuilding and development at scale. How peace bonds achieve these outcomes will vary depending on the context, the investment area, and the peace bond's structure.

Peace bonds might adopt various structures, of differing complexity, according to the issuer. They might be issued by Sovereigns (government peace bonds), by corporate entities (commercial peace bonds), and/or by a mix of corporates, international or non-government organizations (NGOs), and development finance institutions (DFIs). Structures might feature donor risk-sharing mechanisms such as guarantees, political risk insurance or co-financing (blended peace bonds). However, this report focuses on forms of peace bond that have purely commercial structures, in which the arranger and/or issuer is a corporate or for-profit entity. This is important because, if peace bonds are to be scaled up sustainably as an asset class, their additionality and ability to create value must be established independently of government or public financial support.

To understand how a peace bond would be structured, how PEMs would be integrated and financed, and how PEMs would impact financial and project risk, the report presents a detailed feasibility case based on a real proposed investment project. The proposed project is a 50MW solar plant to be constructed in Northern Ghana that would deliver energy to Burkina Faso through a power purchase agreement (PPA). The project has the potential to impact one million people in Burkina Faso, which is equivalent to 5% of the population and 14% of the country's energy import needs.<sup>2</sup>

The feasibility study shows that a realisable set of PEMs, embedded and financed by the peace bond, could directly address conflict risks as well as key project risks and credibly reduce the discount rate linked to the project by 200 basis points, from 19% to 17%. The effect would be to improve the NPV of the project by USD 6M. The surplus value of the PEMs in alignment with the Peace Bond is calculated to amount to USD 4.4M. This shows that, by closely aligning PEMs with key project risks, a peace bond structure can improve bankability and the peace impact of private investments and reduce dependence on development aid and public finances, achieving a win-win-win for people, investors, and governments.

The proposed peace impacts in Burkina Faso are timely and urgent. Energy needs in Burkina Faso are significant because only about 20% of the population has access to energy, most of which is currently consumed by those in urban areas. The urban/rural split in access to energy is one of many interlinked causes of conflict, in association with issues of governance, rural/urban divides, land conflicts, resource competition and State legitimacy. PEMs, tied to issuance of the bond, will seek to address these issues in a variety of ways, by earmarking energy for under-served communities, using dialogue platforms to build trust in service provision, and co-developing benefit-sharing mechanisms with communities and national actors. By these means, PEMs can improve benefits to communities and increase their inclusion, and at the same time lower key project risks and raise NPV, thereby increasing the project's bankability for investors. The PEMs would also seek to embed a resilience strategy that would enable the investment and communities to withstand shocks and ultimately have the capacity to adapt operations.

---

<sup>2</sup> Based on current per capita energy consumption.

The report has five key sections. **Section 1** defines key terms, outlines indicative peace bond standards and principles, sets out a schema for peace impacts and PEMs (which is required to define what peace bond issuances would seek to impact), and explains how PEMs would be applied. **Section 2** presents a simple taxonomy of peace bond structures and outlines how peace bonds could achieve a market premium, improve NPVs and create additionality at scale. **Section 3** describes the key stakeholders involved in potential peace bond issuances, the process required for issuance, and relevant risks, transaction costs and legal/fiduciary considerations with respect to issuance. **Section 4** presents a market analysis of the sectors that early peace bond issuance might focus on. It highlights three investment areas in which peace bonds might generate high additionality: (1) energy; (2) water resources and WASH (water, sanitation and hygiene); and (3) agriculture and food security. These are appropriate fields for peace bond issuance because their investment and project risks are closely linked to peace and conflict dynamics that PEMs can meaningfully lower. **Section 5** describes the case study for a proposed commercial peace bond in Ghana/Burkina Faso. It outlines the PEMs and describes the commercial structure, the method used to calculate the discount rate, and how the PEMs directly address key calculations that underpin the investment's risk pricing. This section also discusses how energy relates to the peace and conflict dynamics of Burkina Faso, and the peace impact pathways that underpin the PEMs.

---

## Key findings from the feasibility study

- The feasibility study shows that PEMs can be integrated into a peace bond structure to lower the discount rate, improve the NPV and bring additionality to a real investment.
- The proposed project is a 50MW solar plant that has the potential to impact one million people in Burkina Faso, based on current per capita energy consumption. This is equivalent to 5% of the population and 14% of the country's energy import needs.
- The solar plant would be constructed in Northern Ghana and would deliver energy to Burkina Faso through a PPA. The capital structure would be split between debt (70%) and equity (30%).
- The study shows that a feasible set of PEMs could directly address key conflict and peace risks as well as key project risks and thereby credibly reduce the risk premium on the debt financing by 200 basis points, from 19% to 17%. The effect would be to improve the NPV of the project by USD 6M. The surplus value from aligning the PEMs and the peace bond is calculated at USD 4.4M.
- The peace impact is achieved through PEMs embedded and financed by the structure.
- The PEMs are valued at between USD 1.6M and USD 2M. They would establish a series of participatory dialogue and peacebuilding platforms through which communities would co-design a variety of benefit-sharing mechanisms, thereby increasing community trust and ownership and addressing local needs.
- The potential project would achieve peace impacts in six ways. It would:
  - 1.** Improve State-society relations and trust in Burkina Faso by delivering energy to under-served rural communities.
  - 2.** Reduce natural resource competition in rural areas by earmarking energy use in the PPA to specific under-served rural communities, potentially alongside coordinated development initiatives by peacebuilding and food security actors.
  - 3.** Strengthen cross-border ties between Ghana and Burkina Faso and regional economic integration, boosting the resilience of regional diplomacy and cross border co-operation.
  - 4.** Improve horizontal (inter- and intra-community) and vertical (community-State) trust and cohesion in northern Ghana. This goal would be achieved via a peace responsive land acquisition process, interconnected participatory dialogue, and long-term benefit-sharing mechanisms that integrate training, maintenance, and local governance support.
  - 5.** Increase resilience to violent conflict via benefit sharing, community engagement, and earmarking conditional additional funds for peace actions in co-agreed areas of need.

6. Demonstrate confidence in the operational environment to other investors, potentially enabling future investment to meet other development needs and further incentivising co-operation.

More broadly, the provision of increased electricity supply to Burkina Faso has critical development outcomes that are vital for the country's continued economic growth and its transition to a development path that is more resilient and peaceful.

# 1. Introduction and rationale of the feasibility study

# 1. Introduction and rationale of the feasibility study

New financing approaches for peace are needed urgently. Today, 1.8 billion people, almost a quarter of the world's population, live in 57 fragile and conflict affected countries where the consequences of instability and violence are an everyday feature of life. So strong is the link between conflict and development that three out of every four persons on the planet who live in extreme poverty live in these countries. It is now accepted that, unless these societies address conflict and its drivers, few if any will meet the 2030 Sustainable Development Goals (SDGs) on hunger, health, or gender equality and women's empowerment – with the result that millions will remain stranded in poverty and inequity.

At least two fundamental financing challenges must be addressed to achieve the SDGs. First, a significant financing gap needs to be filled; and second, the financing that is provided needs to be conflict sensitive and deployed in a manner that enhances peace.

It is estimated that, to achieve the SDGs, USD 2.5 trillion, or USD 500bn per year, will need to be raised for the world's low-income countries.<sup>3</sup> Given that ODA currently hovers around USD160bn, or about one third of the amount that low-income countries need per year, and that many low income countries continue to depend on aid, the financing gap is significant. Furthermore, the fiscal challenges related to Covid-19 make it exceedingly unlikely that ODA levels will rise sufficiently. Achieving sustainable development will ultimately depend on private or alternative public capital flows.

Critically, investment flows to sectors relevant to the SDGs are currently structurally weak in developing countries, and this is especially true of flows to fragile countries affected by conflict. The Covid-19 pandemic has exacerbated the dependence of many such countries on ODA, making it even more important to strengthen investment in them.

According to the UN Conference on Trade and Development (UNCTAD), in 2021 investment flows to sectors relevant to the SDGs collapsed in developing countries. Foreign direct investment (FDI) into Africa fell by 16% to 40bn, a level last seen 15 years ago.<sup>4</sup> According to the same source, the number of newly announced greenfield projects in developing countries fell by 42% and the number of international project finance deals – important for infrastructure – by 14%. These impacts are significant and show that we need to increase the flow of resources and investments into parts of the world where future sustainable development is critical.

While the USD 2.5 trillion financing gap for the SDGs is significant, it is important to note that it is estimated to represent just 1% of global financial markets, underlining both the vast size of global financial capital and its potential to redress the most urgent social development challenges and meet needs. While there is much interest in the potential of impact and blended finance to supplant ODA and raise significant additional private finance for development and peace, to date the least developed countries have only attracted 6% of all the private finance that ODA has mobilised.<sup>5</sup> A variety of factors is responsible for this, but the principal cause

---

3 Gaspar, V., et al (2019), 'Fiscal policy and development: Human, social, and physical investments for the SDGs', Staff Discussion Note, No. 19/03, International Monetary Fund (IMF). At <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2019/01/18/Fiscal-Policy-and-Development-Human-Social-and-Physical-Investments-for-the-SDGs-46444>.

4 UNCTAD (2021), 'World Investment Report 2021, Investing in Sustainable Recovery'. At: [https://unctad.org/system/files/official-document/wir2021\\_en.pdf](https://unctad.org/system/files/official-document/wir2021_en.pdf).

5 OECD and UNCDF (2020), 'Blended Finance in the Least Developed Countries 2020: Supporting a Resilient COVID-19 Recovery', OECD Publishing. At: <https://doi.org/10.1787/57620d04-en>.

is a failure to link development and peace strategies to private sector activity. According to the Organisation for Economic Co-operation and Development (OECD) and the UN Capital Development Fund (UNCDF), “Most OECD Development Assistant Committee (DAC) members and other donors have developed specific development co-operation strategies to guide their interventions in fragile contexts. Yet these strategies often bear no specific reference to the role of private investors.” There is a clear need to expand investment opportunities in fragile, conflict affected and low-income countries; but at the same time such investments must not cause harm and must be effectively sensitised to local contexts so that they mitigate risks in ways that benefit local communities as well as the projects they support.

The sectors that work on sustainability and impact have not yet successfully attracted significant volumes of funds to countries subject to conflict, or to specific peacebuilding issues. This is reflected in the fact that few blended finance operations have identified investable areas in SDG 16 (peace, justice and strong institutions). Yet it is well understood that financing is a critical precondition for achieving many SDGs. A review of the convergence blended finance database, a comprehensive database of over 600 blended finance structures, showed that SDG 16 has the smallest presence. Only three structures made reference to SDG 16, in all cases to sup-

port press freedom. Only one fund structure could be said to have intentional peace impacts, a 2016 fund valued at 1.4M, sponsored by SIDA, to support reconciliation efforts in Colombia.

Yet it is not enough to just increase the size and scale of investment in fragile and developing countries. Forms of new investment need first to do no harm, and then must be conflict sensitive and ultimately peace responsive. To achieve these goals requires institutions to fundamentally rethink the principles, standards and governance mechanisms behind their investments: how they are structured; the metrics applied to monitor them; the partners selected to manage them; the design of structures and bonds; and ultimately the degree to which investments are socially inclusive and have bottom-up legitimacy. The quality of planning and execution processes is critical; but current environment, social and governance (ESG), and impact frameworks are inadequate. The International Capital Markets Association (ICMA) has set out principles of green, social and sustainability bonds;<sup>6</sup> the OECD has established guidance on principles for blended finance;<sup>7</sup> and the Kampala Principles<sup>8</sup> established guidelines for improving the integrity of sustainable and blended investments. However, they have not yet been widely adopted or applied in peace and development contexts, especially in low income and fragile, conflict affected countries.

---

6 International Capital Market Association (2021), ‘Social Bond Principles: Voluntary Process Guidelines for Issuing Social Bonds’. At: [icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Social-Bond-Principles-June-2021-140621.pdf](https://icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Social-Bond-Principles-June-2021-140621.pdf).

7 OECD (2020), ‘Blended Finance Principles Guidance’, OECD Publishing. At: [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC\(2020\)42/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC(2020)42/FINAL&docLanguage=En).

8 Global Partnership for Effective Development Co-operation (2019), ‘Kampala Principles: On Effective Private Sector Engagement In Development Co-operation’. At: <https://www.effectivecooperation.org/system/files/2019-07/Kampala%20Principles%20-%20final.pdf>.

---

## Why peace bonds?

Private sector finance can be catalysed in many ways to achieve peace impacts. Previous research by Interpeace and SEB<sup>9</sup> has scoped the viability and requirements of a broader peace enhancing finance (PEF) market. A PEF market would bring together a wide range of potential assets to build or enable peace, including instruments that blend traditional grant-based finance, donor guarantees, insurance coverage and private sector debt and equity investments. Existing blended finance approaches have successfully combined grants, concessional lending or guarantee/insurance or impact investing with various debt and equity instruments and thereby catalysed large sums for development purposes in low and lower-middle income countries. The ambitious proposal to create a larger peace financing market would apply peace enhancing criteria to all types of financial investment and would not limit the market to sub-sectors of finance or sustainable finance.

This report, however, focuses only on the feasibility and requirements of bond- and debt-related instruments, such as privately placed notes. It does so because the global publicly traded debt market is valued at some USD 140 trillion, underlining the scale of this market's financial resources. Within it, the global corporate debt market is alone estimated to have a value of USD 40 trillion, of which USD 20 trillion is non-financial debt. It should also be mentioned that, because these markets are so large, it is possible to scale up a new investment class quickly.

Of particular importance to peace bonds is the rapid growth of green bonds. These surged after they were first issued in 2007; by September 2021 green bonds to the value of USD 1.5 trillion had been issued. Unlike regular bonds, green bonds do not finance the general working capital of the issuer. Instead, issuers of green bonds commit to using the proceeds of a green bond to exclusively finance or re-finance, in part or in full, green projects, green assets, or other green business activities. Experiences with the green bond have also spurred the development of additional sustainable debt instruments, including social bonds, green loans, and sustainability-linked bonds.

Several factors drove the growth of green bonds, which a future peace bond market should harness. First, green bonds are designed to be a familiar and low risk financial instrument that allows both investors and issuers to invest in sustainability at relatively low cost. Second, green bonds meet investors' growing demand for sustainable investment opportunities. For instance, the UN-led Principles for Responsible Investment has more than 3,800 signatories representing interests that manage assets valued at more than USD 121 trillion.<sup>10</sup> Third, green bonds offer issuers a lower capital cost because the demand for green bonds is outstripping supply; globally, savings for issuers range between 1 and 10 basis points.<sup>11</sup>

---

9 Interpeace (2021), Making the Market for Peace, An Assessment of the opportunities to create a global peace financing market.

10 UN Principles for Responsible Investment (2021), 'Annual Report 2020'. At: [Annual Report 2021 | PRI \(unpri.org\)](#).

11 Climate Bonds Initiative (2021), 'Green Bond Pricing in the Primary Market January - June 2021'. At: [Green Bond Pricing in the Primary Market H1 2021 | Climate Bonds Initiative](#).

## The economic cost of conflict

Globally, the cost of wars and conflicts and associated economic losses amounts to USD 1,895 per capita (adjusted from 2018 numbers) or approximately USD 14.4 trillion (purchasing power parity, PPP) or roughly 10.5% of gross world product.

In the worst affected countries, the benefits of peace produce on average a 35% increase in GDP (compared to 3.3% of GDP in the most peaceful countries). Investments in financial outcomes that directly enhance peace lead to opportunities to: (a) build peace; (b) be peace responsive; and (c) create peace impacts that can be used to extract these returns, measured in terms of GDP and based on the intent to create impact, the bankability of cash flows, reduction in risk premiums linked to conflict, and the certainty equivalence of revenues.

The Institute for Economics and Peace calculates the total cost of violence (using PPP) by considering three factors:

1. Direct costs: immediate consequences to the victims, perpetrators and government.
2. Indirect costs: delayed economic losses following violent events, including the after-effects of trauma experienced by victims.
3. Multiplier effects: additional economic activity that would have accrued had violence been avoided.

## Financing peace through bonds, compared to equity

Bonds structure a loan made by an investor to a borrower. In return for lending money to the issuer (who represents or is the borrower), an investor receives interest payments (coupon) and, at an agreed date, repayment of the principal (the amount of the original loan). By comparison, an investor who invests in the equity of a company or asset becomes a co-owner. The value of equity investments depends on the market's valuation of the underlying company or asset. In most projects, especially large development-related investments, their capital structure needs to include both debt and equity to be effective and viable.

Bonds and equities have different properties. Bond investments have a lower risk than equity investments because bond investors rank higher than equity investors in any claims on assets of the company. Bonds provide a defined and finite investment tenor.<sup>12</sup> Investors know before the bond has been is-

sued when and how much they will receive in future payments from those who borrow from them. As a result, bonds are a more steady and more reliable income source for investors than equity. Bonds also offer borrowers long-term certainty about their debt liabilities.

Both equity and bonds have a role to play in financing projects that will enhance peace. However, the expectation is that most funding for investment in developing settings will be financed by debt. In the case of projects where the asset is owned by a government (for example, an infrastructure project such as a bridge), there is evidently no private equity. In the case of commercial projects, funding is likely to be a mix of equity and debt with an emphasis on debt, particularly in larger projects.

Bonds are well suited to funding projects in a manner that enhances peace. Bond funding is usual-

<sup>12</sup> 'Investment tenor' means the number of calendar days from and including the Trade Date but excluding the scheduled Maturity Date, as specified in the Confirmation.

ly specific to a particular project, which means that peace enhancement mechanisms can be articulated and measured. By contrast, equity investments are usually fungible and can support multiple projects, including projects that have not yet been identified or defined; it is therefore more challenging to link peace enhancement mechanisms to them. Further, the application of eligibility standards or principles to bond issuance (as the ICMA Green Bond has done) provides a structured and systematic method of third-party verification that is embedded in

market norms. This allows potential issuers and arrangers of capital, as well as partnering organizations, to allocate capital in specific ways according to specific criteria. This is especially important for peace actions for at least two reasons: clear moral and ethical standards are required (1) to ensure peace impacts and thus proper risk abatement, and (2) to maintain reputational standards and trust, because these are key to the viability of peace-oriented projects and the further development of any market.

---

## Defining a peace bond

Bonds are a fixed income instrument issued by corporations, governments, or other organizations and sold to investors. Issuers repay the capital (principal) and accrued interest (coupon) to the investors over an agreed period. Most commonly, issuers can use the proceeds of bonds they have raised for general purposes. However, most bonds in the sustainable debt market are use-of-proceeds bonds, meaning that issuers are required to use the money raised by such bonds only for eligible purposes.

Based on this understanding, a peace bond may be defined as:

*“A type of bond instrument whose proceeds would be exclusively applied to partly or fully finance or re-finance new or existing projects that have a peace impact and are verifiably aligned with peace bond principles and standards.”*

While no explicit principles or standards yet exist to guide verification of a peace impact and thence a peace bond, this report sets out a number of indicative guidelines that are based on the guidance applied to other asset classes of sustainable investment and on Interpeace’s experience and research as an international peacebuilding organization. When a peace bond market forms, it will be important to establish rigorous, clear standards and principles with which bonds can be aligned, making it possible and appropriate to label them peace bonds if they meet given criteria. To prevent ‘peacewashing’, it is equally important to ensure that investments that do not meet such criteria cannot be branded peace bonds.

---

## Clarifying nomenclature: peace bonds

Three types of peace bond are described in this report:

1. Government peace bonds
2. Blended peace bonds
3. Commercial peace bonds

## A brief review of the blended finance market

When scoping the potential and feasibility of peace bonds, it is helpful to review the blended finance market. This is because early phases of peace bond issuance may adopt features of blending – the prac-

tice of combining grant-based finance, concessional loans from international financial institutions (IFIs) or development finance institutions (DFIs), forms of insurance, and risk coverage in the form

of guarantees. A review of this market showed that at least three key descriptive facts are important to the viability and need for peace bonds: (1) SDG16 and peace remain largely neglected and under-prioritised by current blended finance flows; (2) the sectors that receive most blended investment are renewable energy, microfinance, energy efficiency, farm productivity, and agricultural finance, all of which have significant peace impact potential; (3) more than half of all blended investments have been made in fragile and conflict affected countries. These facts confirm the presence of a market readiness and a potential opportunity for peace bonds. They are discussed in more detail below.

An analysis of the historical deals database of Convergence, a blended finance clearing house, showed that, of 680 deals valued at USD 161 billion:

- More than half of all deals to date were larger than USD 50M. 48 deals were valued at between USD 250M and USD 500M; 32 were valued at over USD one billion.

- 37% of deals were fund type structures; 26% were project type structures; 20% were company structures; 7.2% were bonds.
- Bond structures averaged USD 126M; fund structures averaged USD 161M. Facility and project finance deals were much larger, at USD 353M and USD 460M respectively.
- Of these deals, only 14% primarily targeted rural people. 8% targeted women and girls. 3% targeted youth and children.
- Almost half of all deals were located in sub-Saharan Africa. Countries that recorded significant numbers of deals include Kenya (113), Uganda (78), Nigeria (65), Tanzania (64), Ghana (61), and Rwanda (42).
- SDG 16 (peace, justice and strong institutions) is largely neglected. Only three bonds related to SDG 16, all of which supported press freedom. Only one fund structure could be said to have intentional peace impacts, a 2016 fund valued at USD 1.4M, sponsored by SIDA, to support reconciliation efforts in Colombia.

**Figure 1. Average deal size by SDG**

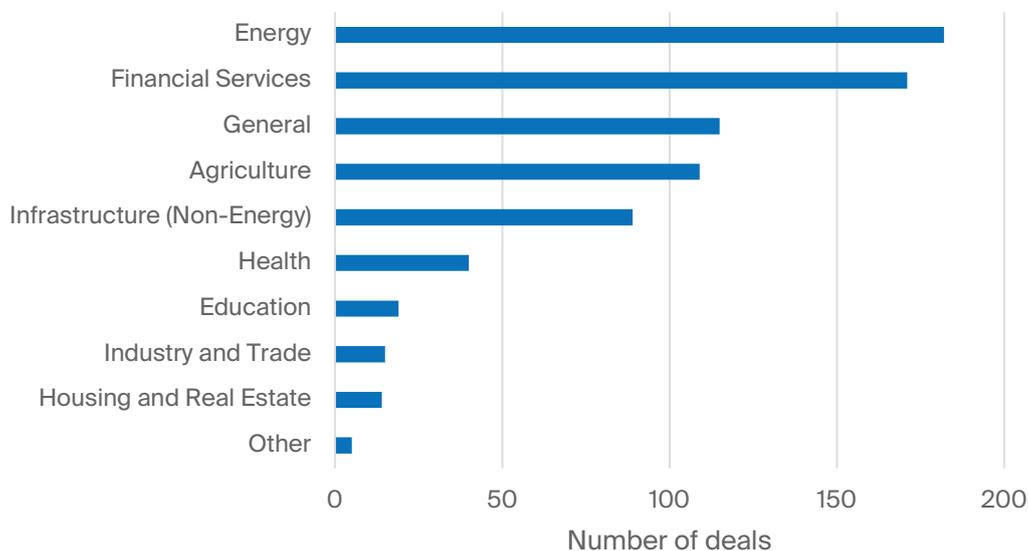
*Blended finance flows have largely neglected SDG16 and peace*



Source. Convergence Finance, Historical deal database.

**Figure 2. Sector frequency, blended finance, all transactions to date**

*The largest sub sectors in the sectors below are renewable energy, microfinance, energy efficiency, farm productivity and agricultural finance*



## Bonds compared to notes

Blended finance references describe bonds in sometimes indicative and informal ways. Strictly speaking, bonds are public listed securities that have certain specific legal, fiduciary, and regulatory requirements and features and usually involve a large number of investors. By contrast, notes payable or private placements are privately negotiated financings between listed or unlisted companies and have a limited number of investors.<sup>13</sup>

The primary difference between notes payable and bonds stems from securities laws. Bonds are always

considered and regulated as securities (and therefore follow Reg S, Reg 144 A and Global S registry requirements), whereas notes payable are not necessarily considered securities. For example, securities law explicitly states that mortgage notes, commercial paper, and other short-term notes are not securities under the law. Other notes payable may be securities, but whether this is so is defined by law, convention, and regulations. Funds for smaller projects are likely to have been issued in the form of privately-placed notes or loans rather than bonds.

---

## Understanding peace

Organizations and sectors define peace and peacebuilding in a number of ways. The most accepted definition distinguishes negative from positive peace.<sup>14</sup> Negative peace is commonly understood to be the absence of violent conflict or fear of violence. Positive peace is defined much more broad-

ly, to include attitudes, institutions and norms that create and sustain peaceful societies.<sup>15</sup> A positive peace approach seeks to transform social relationships and addresses issues of safety, social justice, equality, mutual trust and well-being. It cannot be separated from the objectives of frameworks, such

---

<sup>13</sup> CMS (2017), Private Placement Guide. At: [CMS Private Placement Guide.pdf](#).

<sup>14</sup> Galtung, J. (1969), 'Violence, Peace, and Peace Research'. *Journal of Peace Research*, Vol. 6, issue 3, p.167-191. At: <http://www.jstor.org/stable/422690>.

<sup>15</sup> In general, definitions of positive peace are also diverse, and more contested.

as the SDGs, which attach weight to sustainability, inclusiveness, equality and especially gender equity. Positive peace is not achieved by the elimination of conflict: it is better understood as a process through which conflicts and grievances are resolved in peaceful, just and fair ways.

Individuals, organizations and interventions can contribute to peace in many ways. One simple but commonly used distinction, often made by international humanitarian and development actors, separates out ‘capital P’ and ‘lower-case p’ peace initiatives. ‘Capital P’ interventions seek macro political solutions to violent conflict and may be supported by a UN Security Council mandate.<sup>16</sup> They are inherently political, generally visible, high-profile in nature, and might include support to implement a peace agreement. ‘Lower case’ peace actions work to transform relationships, increase the capacity to sustain peace in institutions and broader society, and support trust and social cohesion. ‘Capital’ and ‘lower case’ peace actions are equally necessary; both are required if peace is to be durable, and

both need to be sensitive to the specific contexts in which they are applied.

When peace is understood in this way, it is clear that a variety of actors can contribute to realising peace outcomes. In addition, because peace is a multidimensional process, the product of many different economic, socio-cultural, political, environmental and psycho-social inputs, it requires many actors in a society to make cumulative and reinforcing contributions. In a globalised world, too, it is evident that economic and private sector activity can exacerbate conflict and can make a major contribution to peace. How global investment, private capital and business activity function, how they distribute resources, assets and services, how much they include people and groups in society, have a major impact. However, private investment is too often largely blind to the social conditions and determinants of peace, often to the detriment of the risk environment and broader macro-fiscal conditions on which investments depend to retain certainty and remain profitable.

---

## Guidance for public and private sector investment and peace

To make larger impacts on peace, public and private sector and SDG investments can focus on certain thematic or sectoral areas, and can modify how they deploy resources. In development contexts, the relationship between public and private sector activity and peace is often understood in terms of its impact on jobs, basic needs, livelihoods, access to resources, technology and other material results. These are indeed fundamental building blocks for development and peace; but, as grant-making international development organizations have discovered from years of hard-learned experience, communities and nations do not achieve peace if they are simply provided with material goods and services. *How* goods, services, resources and capital are deployed, developed and circulated, and *how* communities engage and relate matters enormously to maintenance of the social contract and to cohesion between groups and between the pop-

ulation and authorities. When they assess ‘lower case p’ outcomes, therefore, actors need to consider more deeply *how* communities and populations relate and engage with each other as well as *what* their interventions deliver, and identify the actual as well as the perceived beneficiaries of interventions. Put simply, whether a road development will create peace or worsen conflict does not depend first on the instrumental value of the road, but much more on how and where it is built, by whom and for whom.

The sustainable development and investment communities have defined several clusters of principles, including the Social Bond Principles of the International Capital Markets Association (ICMA), the Principles for Responsible Investment (PRI), the Performance Standards of the International Finance Corporation (IFC), and the Equator princi-

---

<sup>16</sup> Inter-Agency Standing Committee (IASC, 2020), ‘Exploring Peace within the Humanitarian-Development-Peace Nexus’. At: [Issue paper - Exploring peace within the Humanitarian-Development-Peace Nexus \(HDPN\).pdf](https://www.interagencystandingcommittee.org/publications/issue-paper-exploring-peace-within-the-humanitarian-development-peace-nexus-hdnpn) (interagencystandingcommittee.org).

ples,<sup>17</sup> as well as clear thematic areas that align with the SDGs and cover different investment themes and sectors. However, these often say very little about the critical ‘how’ questions. Only more recently has the OECD produced blended finance guidelines that set out five clear principles showing how development co-operation can catalyse private sector development in ways that are sensitive to peace and equity.<sup>18</sup> Principle 3, on tailoring blended finance to local contexts,<sup>19</sup> provides very important guidance to potential projects and investments on how they can engage with the local context during design and planning; but it does not say anything about how such investments can manage conflict dynamics or essential dimensions of conflict sensitivity, let alone become more peace responsive.

Yet, in the most fragile and conflict affected places, how development actors engage with people and with local dynamics can clearly influence or determine whether an investment or project worsens conflict dynamics, improves social cohesion, or strengthens ‘little p’ capacities. Much of this ‘how’ is determined by the quality of the processes that

are adopted to facilitate thematic development interventions. Their quality can be measured by the extent of real (or perceived) inclusiveness, participation, communication/transparency, community/State ownership, and community/State agency over what is or is not done. It is by significantly improving how resources are deployed and proceeds managed that financial structures can in theory make significant peace impacts and realise additional value. Mainstreaming appropriate approaches to process would potentially improve services, user engagement and local accountability, and thereby generate direct and indirect financial impacts and positive changes in asset level risk. Development literature suggests that these impacts are becoming better understood. According to a systemic evaluation carried out in 2019, interventions that encouraged participation by citizens and communities measurably improved user engagement, the quality of services delivered, and confidence in State/society relations.<sup>20</sup> These effects were also acknowledged by the IFC in 2013, when it reviewed the first phase of its Conflict Affected States in Africa Initiative (CASA).<sup>21</sup>

## Understanding peace responsiveness

Interpeace has been working with various partners in the international development and humanitarian sectors to better define and understand how their behaviours, learning, tools and frameworks might be operationalised to impact peace more effectively. It applies a paradigm called peace responsiveness. The paradigm provides practical guidance that can assist a range of actors (development, humanitarian, private sector) to avoid doing harm, be

conflict sensitive, and increase the peace impact of their activities. By operationalising peace responsiveness, it may be possible to reinforce social cohesion, socio-political power dynamics, the resilience and trustworthiness of public services and goods, public trust in authorities and institutions, and the capacity of institutions to prevent and resolve conflicts.

---

17 Equator Principles (2020), ‘The Equator Principles’. At: [The Equator Principles\\_EP4\\_July2020 \(equator-principles.com\)](https://www.equator-principles.com/).

18 Principle 1: Anchoring blended finance to a development rationale; Principle 2: Design blended finance to increase the mobilisation of commercial finance; Principle 3: Tailor blended finance to local context; Principle 4: Focus on effective partnering for blended finance; Principle 5: Monitor blended finance for transparency and results. OECD (2020), ‘Blended Finance Principles Guidance’, at: [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC\(2020\)42/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC(2020)42/FINAL&docLanguage=En).

19 Ibid., Principle 3: Tailor blended finance to local context.

20 Waddington, H. et al (2019), ‘[Does incorporating participation and accountability improve development outcomes? Meta-analysis and framework synthesis](#)’, London: International Initiative for Impact Evaluation, systematic review 3.

21 IFC (2013), ‘IFC’s Conflict Affected States in Africa Initiative: Final Report for CASA’s First Cycle (2008-2013), 2013. At: [IFC+CASA+I+Final+Report.pdf](#)

## Interpeace's work on peace responsiveness with UN Agencies

As part of its mandate to assist the international community, and in particular the United Nations, to play a more effective role in supporting peacebuilding efforts around the world, Interpeace has worked with several UN agencies and international organizations to develop guidance on conflict sensitivity and 'peace responsiveness' and integrate it in their development and humanitarian activities.

This work has been pursued particularly actively since Interpeace established a Peace Responsiveness Unit in 2020. The unit seeks to provide high-level advisory services to development and humanitarian actors, both to mitigate adverse effects that their actions may have on conflict dynamics, and use their work to improve conflict dynamics and advance sustainable peace. The second aim is what is known as peace responsiveness. It is applicable to all interventions that take place in fragile or conflict affected contexts.

## How can private sector actors and investment activities make a practical difference to peace through peace responsiveness?

A business or private sector activity or investment is peace responsive if, in conflict affected or fragile contexts, it is conflict sensitive and can deliberately contribute to peace through its activities and investments. While peace is intrinsically a desirable objective, the well-established links between violence, conflict and poor economic performance mean that activities which are more peace responsive are like-

ly to manage certain types of risk better, and to be more embedded; and communities are therefore more likely to accept and use them. These benefits, while likely very dependent on the thematic investment, the context and the approach, are important potential incentives for adoption of peace responsive approaches.

---

## What is a peace impact?

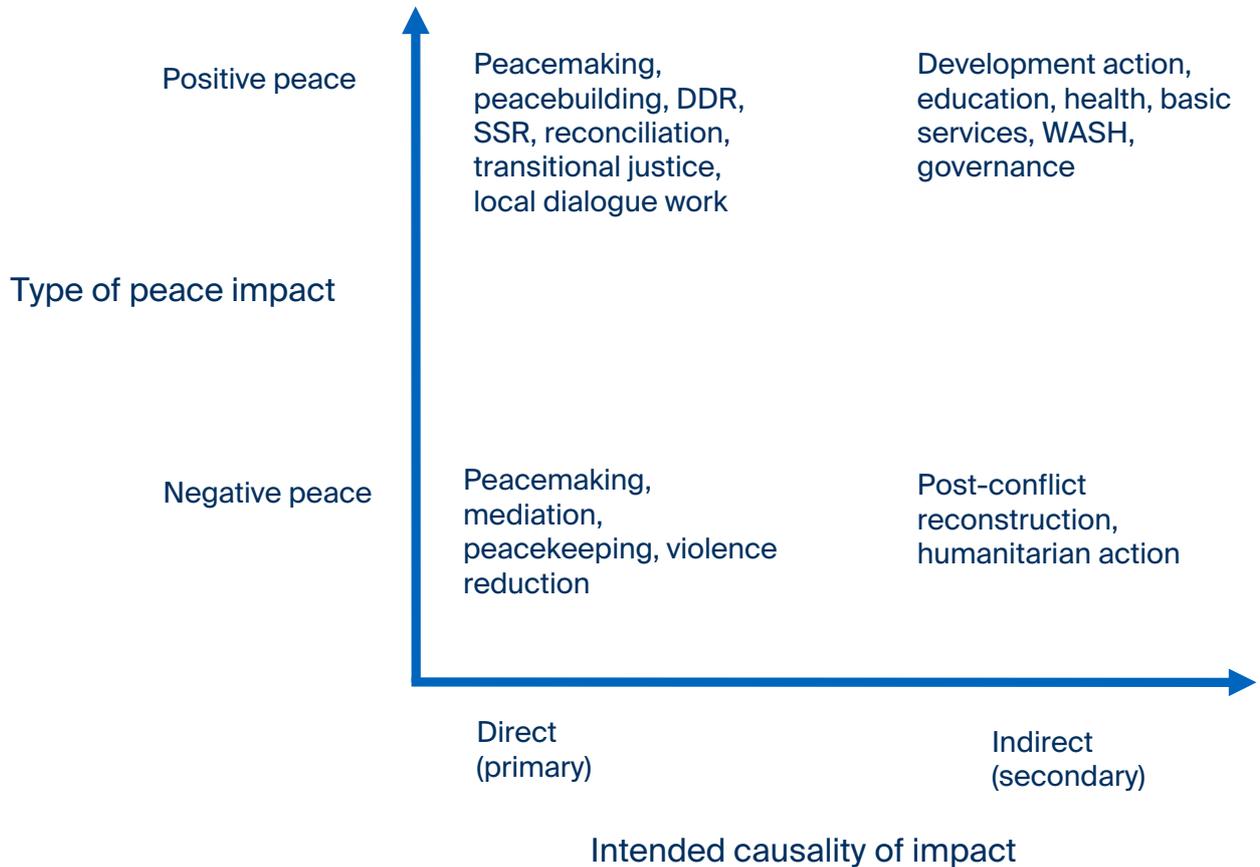
A peace impact can have an effect on negative or positive peace. The impact can be direct or indirect. Peace impacts can only be claimed if a project first does no harm and is conflict sensitive.

When a peacebuilding or inter-governmental organization does intentional peacebuilding work, by promoting dialogue, building trust, or mediating a conflict, for example, it seeks to achieve direct peace impacts. By contrast, a development project,

for instance to rehabilitate and upgrade irrigation and water resources, will probably seek to achieve direct impacts on water resources and irrigation (perhaps to improve agricultural productivity); but it may also effect secondary and indirect peace impacts by improving social cohesion between groups and trust between communities and the government. Peace bonds can be responsible for important secondary and indirect impacts on peace; but the changes achieved need to be intended.

**Figure 3. A simple framework for understanding peace impacts, by type and intention**

*The majority of peace bond peace impacts and opportunities are in the top right quadrant*



An impact on negative peace might, for example, reduce the level of violence and conflict or fear of violence and conflict. A broad typology of negative peace categories includes:

- Direct interpersonal violence, including physical violence in the community or household.
- Sexual and gender-based violence (SGBV) in the community or household.
- Collective and intercommunal violence.
- Armed conflict, State-sponsored violence, or violence by non-State actors.
- Acts of genocide.
- Fear of all the above categories.

Positive peace impacts are much broader and multi-systemic. They may be seen in changes of input, output and outcome, at different levels. They include inter alia:

- Vertical social cohesion is enhanced as a result of better State-society relations.
- Horizontal social cohesion is enhanced in and between divided groups at community or national level (ethnic, linguistic, religious, gender, age, disability, geographic, urban/rural, etc.).
- Access to basic services, income and goods (education, health, housing, work, etc.), real and perceived, becomes more equal.
- Gender equality between men and women advances in environmental, economic, political, cultural, and social domains.
- Intergenerational equity advances in environmental, economic, political, cultural, and social domains.

- Vertical and horizontal trust improve. This may include trust in society, or key formal institutions (State, media, private sector, religious, informal, etc.). It may also include trust in accountability, or complaint and local dispute resolution mechanisms.
- Governance capacities to deliver basic public goods and services improve in ways that a broad cross section of society thinks are fair and just and non-discriminatory.
- Levels of corruption decline (or are perceived to decline) in private and public and formal and informal institutions.
- Freedom of the media, the transparency of information flows in society, and the transparency of institutions improve and are perceived to be improving.
- Diplomatic relations between neighbouring States improve.
- Human rights (economic, political, social and cultural) are better protected and perceived to be better protected.
- Macro-fiscal stability and economic governance improve as a result of significant changes in the openness, fairness and transparency of the business environment.

- It is perceived by all, but especially by those marginalised and excluded, that historical grievances (real or perceived) are being fairly and justly addressed and resolved.
- The resilience capacities of individuals, households, community and government institutions improve. This might include the capacity to anticipate, manage, mitigate, resolve or transform violent conflicts or develop inclusive, credible and legitimate social change processes.

Economic development processes can positively or negatively impact negative and positive peace in many ways, depending on the context and the nature of the investments or interventions. It is also important to note that all the above categories can be measured by a variety of tools available in the literature on monitoring and evaluation. Methods for attributing and quantifying the contribution of particular changes will depend on the intervention/investment, and can vary in cost and complexity. To qualify as a peace bond, investments would have to be able to show that they had intended to make peace impacts, and would need to verify that impacts had occurred in one or several of the categories listed above.

---

## Indicative principles and standards for peace bonds

Global normative principles and standards have already been developed on participation and accountability, peace and peacebuilding, peace and business, and sustainable investment. These can provide significant guidance for the design of an indicative set of peace bond principles and, more broadly, peace-enhancing investments. Numerous international frameworks on peace, humanitarian and development action can provide additional guidance. They include the DAC Recommendation on the Humanitarian-Development-Peace Nexus;<sup>22</sup> UN resolutions on women, peace and security;<sup>23</sup> UN resolutions on youth, peace and security;<sup>24</sup> reviews of peacebuilding architecture;<sup>25</sup> and other processes such as the Principles for Peace Initiative.<sup>26</sup> At the intersection of sustainable investing, blended finance and business and peace, a range of frameworks already mentioned in this report contain potentially relevant standards.<sup>27</sup>

An array of principles, guidance and standards that address inputs, outputs and impacts could form the basis of a regulatory framework for peace bonds. This could involve core principles and operational principles as follows:

1. Core principles for peace bonds.
2. Operational standards for peace bonds.

At the most fundamental level, the core principles would affirm that investors commit to peace, intend to make a positive impact on peace, and will act to verify that impact. They would also include exclusion criteria that would define non-compliance with peace bond principles. Operational standards for peace bonds would address the use of proceeds, project evaluation and selection, management of proceeds, and reporting.

### Indicative core principles for peace bonds

1. Peace bond investors will intentionally and consistently support efforts to achieve peace (negative and positive), will deploy their investment in a manner that is peace responsive in the short and long term, and will verify the peace impacts that their investments achieve.
2. Peace bond investments will provide bankable returns in order to sustain market incentives and ensure peace bonds continue to be issued in the future.
3. Peace bond investors will place their investments in thematic areas that will support economic development and in which peace enhancement mechanisms will produce synergies in support of peace and peace impacts.

---

22 OECD DAC (2019), 'DAC Recommendation on the Humanitarian-Development-Peace Nexus'. At: [643.en.pdf \(oecd.org\)](#)

23 UN Security Council resolution 1325, S/RES/1325 (2000).

24 UN security Council resolution 2250, S/RES/2250 (2015).

25 General Assembly resolution 70/262, A/RES/70/262 (2016); UN Security Council resolution 2282, S/RES/2282 (2016); General Assembly resolution 72/276, A/RES/72/276 (2018); UN Security Council resolution 2413, S/RES/2413 (2018).

26 At: <https://www.principles4peace.org/>.

27 See, to name a few: ICMA, [Social, Green and Sustainable Bond Principles](#); [Principles for Responsible Investment \(PRI\)](#); IFC, [Performance Standards](#); [The Equator principles](#); the [UN Global Compact](#); OECD, [Blended Finance Principles](#).

## Exclusion criteria for peace bonds

To qualify as peace bonds, an investment or project must show (inter alia) that:

- It is non-sectarian in nature.
- It does not support, directly or indirectly, Governments that are subject to UN sanction regimes.
- It does not support activities that directly or indirectly cause violations of human rights.
- It does not support activities that involve or result in child labour or slavery.
- It does not result in corruption.
- It does not support activities that, directly or indirectly, involve discriminatory employment practices.
- It does not support activities that manufacture or sell heavy weapons or small arms.
- It does not support, directly or indirectly, the manufacture of drugs proscribed by legal and international regulatory frameworks.
- It does not support, directly or indirectly, agricultural or afforestation operations on land designated as primary forest, in high conservation value areas, or in legally protected areas.
- It does not include any issuers that have been involved in major criminal activities (environmental, social, governance, other) as assessed by an authorised third party based on rigorous methodology.

## Indicative operational standards for peace bonds

The verification of a peace bond could occur at operational level in very similar way to that currently proposed by ICMA's Social Bond Principles (SBP). The SBP are voluntary process guidelines that seek to promote transparency and integrity in the nascent social bond market. They clarify guidance on issuance of social bonds and are intended for broad use. Their aim is to "provide a clear process for issuers, which investors, banks, underwriters, arrangers, placement agents and others may use to understand the characteristics of any given Social Bond".<sup>28</sup> Adapting the SBP, a peace bond could be verified in the key processes of the following four stages:

1. Use of proceeds.
2. Process for project evaluation and selection.
3. Management of proceeds.
4. Reporting.

Below, we sketch a basic operational schema of standards in relation to these heads, acknowledging that further market consultation will be needed to finalise guidance for international investment communities.

### Step 1. Use of proceeds

A peace bond would need to say clearly how the proceeds of a bond will be used and how peace impacts will be sought and achieved. These elements should be included in relevant legal documentation

on the security or note. The documentation should provide basic information, for example on the target populations, key commercial partners and the business model of the investment, as social or even

---

<sup>28</sup> International Capital Market Association (2021), 'Social Bond Principles: Voluntary Process Guidelines for Issuing Social Bonds'. At: [Social-Bond-Principles-June-2021-140621.pdf \(icmagroup.org\)](https://www.icmagroup.org/social-bonds/principles-guidelines-for-issuing-social-bonds/).

corporate bonds would. The principal difference of a peace bond is that it would set out a theory of change and a framework for achieving direct and indirect peace impacts, which would underpin how the investor would plan to use proceeds for peace. The investor's intention and ambition to achieve peace impacts could determine the type of peace bond for which a structure would qualify. For example, determination could distinguish between in-

vestment structures that have primary and secondary peace impacts.

Currently, the nature of an 'eligible project' cannot be fully described because peace impacts and peace enhancing mechanisms can be structured in many different ways. Being prescriptive at this stage would potentially exclude many sound peace bond concepts.

## Step 2. Process for project evaluation and selection

The issuer of a peace bond (of whatever type) would need to communicate clearly to investors the nature of the peace impacts it sought, the main partners, the theories of change that underpin the project, its investment logic, key economic, social, environmental and political risks, and factors mitigating those risks.

Specifically, at this stage it might be required to show that :

- The investment design process is informed by a rigorous understanding of local conflicts and political and economic dynamics in the community.
  - The investment design is informed by multi-stakeholder consultations and engagement with relevant impacted communities, to understand local needs, evaluate the community's capacity to utilise and absorb, identify key beneficiaries, and name the project's potential peace and conflict impacts. The same approach will be adopted in relations with local and national authorities as well as implementing partners.
  - The investment design maps what other actors are doing in the context. The project aligns its investment to take account of this information, based on complementarity; it builds meaningful partnerships and is aware of the collective impact of other inputs and actions.
- The investment design sets out a strategy, including its intended peace impacts, its approach, and its theory of change. The investment prospectus describes how the investment will:
    - Positively impact local peace and community dynamics (in addition to standard business modelling).
    - Directly or indirectly ensure that the groups impacted (including women and youth) will be meaningfully included and empowered. The project will give form to the investment's intention to reduce structural power imbalances and inequalities, directly or indirectly.
    - Harness local know-how and respect locally-led processes and responses, building on capacities, skills and attributes the community possesses.
    - Take steps to understand and prioritise positive capacities that enable communities and societies to build back better.
    - Define (and budget for) an accountability and measurement approach that is competent to track how the intended investment contributes to peace throughout its lifecycle.

### Step 3. Management of proceeds

Classically, the term ‘management of proceeds’ refers to how the net proceeds of a bond are credited into a sub-account, special purpose vehicle or sub-portfolio and tracked. As with green and social bonds, the balance of the net proceeds of a peace bond should be tracked and investors should be told transparently how the proceeds have been allocated, in what investments. An external auditor or third party may monitor how the funds are allocated. In addition, that third party may monitor, or require timely but manageable reports on, *how the funds are delivered on the ground* in relevant communities.

The reporting exercise may ask internal checklist questions on conflict sensitivity.<sup>29</sup> For example:

- Have participatory consultations been carried out in the areas of operation?
- Does the nature of the investing entity, or do the interests of implementing partners or staff, induce conflict?
- To what degree are partners and implementing staff representative of the population that lives in the location of the project or is affected by the project?
- If one group composes a majority of the affected population and/or relations within the community are sensitive, is the project taking this into account when it selects local staff and implements programming in the area?
- To what degree are all staff who work on the project aware of the conflict dynamics? How are they made aware?

- How and to what degree is the project enabling individual practitioners, programmes and the institution to be conflict sensitive?

More ambitiously, the peace impact of management of the proceeds could be monitored, to understand different forms of outcome and plot impact indicators. Reporting might cover (but would not be limited to):

- Perceptions of the benefits of the intervention. Are perceptions of benefit even across communities?
- How do members of the local community use and benefit from the project? Who benefits (and who does not)?
- The scale of local employment; the depth of local engagement in the investment or project.
- The impact of the project on specific local resilience capacities. Depending on the intervention, these might include skills, coping capacities, community resources, assets, etc.).
- The impact of the project or investment on community relations and social cohesion.

Progress reports would be submitted to a certification entity that would validate the status of the peace bond and provide feedback to implementors, including suggestions on how to improve management of proceeds on the ground.

---

<sup>29</sup> UNICEF (2016), ‘Conflict Sensitivity and Peacebuilding: Programming Guide’. At: [Programming-Guide-Conflict-Sensitivity-and-Peacebuilding.pdf \(unicef.org\)](https://www.unicef.org/protection/files/Programming-Guide-Conflict-Sensitivity-and-Peacebuilding.pdf).

## Step 4. Reporting

Issuers would provide up-to-date information as a matter of course on the use of proceeds; on the intended impacts; and on key peace and development metrics. Peace impact metrics would be added to essential development metrics for technical aspects of the intervention. Development metrics might include indicators such as food produced or saved, jobs created, water supplied, energy produced, people educated, or vaccines delivered. Technical impact metrics might include indicators such as changes in malnutrition across population groups, levels of literacy, household access to water, or health outcomes.

Where the proceeds of a peace bond are intentionally applied to achieve specific peace impacts, relevant metrics could be qualitative or quantitative. They might include (but would not be limited to):

- Levels of trust in the State in relevant communities.
- Rates of violence before and after in relevant communities (measured via a baseline, mid-lines and endlines).
- Levels of fear of violence in relevant communities.
- Impacts of the project or investment on community relations and social cohesion.
- Impacts on the dynamics of exclusion or marginalisation.
- Impacts on social cohesion.
- Impacts on intercommunal and group dialogue.
- Impacts on inter-generational partnerships and relations.

- Impacts on community members' sense of belonging.
- The responsiveness of institutions to community needs (trustworthiness of services).
- Levels of trust in specific institutions (police, judicial authorities, security services, etc.).
- The inclusiveness and accessibility of government services.
- Impacts on non-violent attitudes.
- Impacts on critical thinking.
- Levels of violence in households.
- Impacts on attitudes to use of violence to address local grievances.
- Impacts on specific local resilience capacities. According to the intervention, these might include skills, capacities, community resources, assets, etc.

To win local buy-in and trust, interventions can employ a range of tools, including tools on participatory planning and dialogue. Consultation should continue throughout the life cycle of an investment. Markers and operational principles would complement other frameworks. In particular, the OECD's blended finance principles provide guidance on development priorities and important aspects of development action, including the need to catalyse commercial additionality, develop and sustain effective partnerships, remain transparent, and rigorously monitor results.

## Peace financing framework

Issuers should explain how their peace bond or peace bond programme aligns with the four core and operational components of the peace bond standard in a peace bond framework or legal documentation. A peace bond framework would set out the issuer's commitment to core peace bond principles and describe use of proceeds, project evaluation and selection, management of proceeds, and reporting.

The success of the green bond market is partly due to the adoption of such frameworks, although a peace bond market would be more complex. A key benefit of such frameworks is that they enable multiple bonds to be issued under one framework, which lowers transaction costs and over time scales up impacts. As they do in the green bond market, peace bond frameworks would make it possible to independently verify that peace bonds are aligned with the peace bond standard.

---

## Peace enhancing mechanisms (PEMs)

Peace enhancing mechanisms (PEMs) would be key instruments for aligning peace bonds with peace bond principles and standards. In essence a PEM mainstreams peacebuilding, peacemaking or peace responsive development actions in the proceeds of a bond. PEMs enable peace bonds to reduce the risks of projects that operate in fragile and developing zones. They create financial additionality and can materially impact the risk premium on investments as well as assist peace bonds to create peace impacts. How PEMs are implemented is critical to realising the benefits of peace bonds: it is in this area that significant practice-oriented learning will occur, on how to improve the positive effects of peace bond issuance.

To understand PEMs and how they would support peace bonds, it is important to clarify their fundamental characteristics and features. Specifically:

- **Foundation of PEMs.** PEMs would be project-specific and would be underpinned by a comprehensive analysis of local peace and conflict dynamics. PEMs would be highly context-specific and would be co-designed with communities and national partners in alignment with peace bond standards.
- **Benefits of PEMs.** PEMs would reduce project risks directly, and to a lesser extent would indirectly reduce risks related to country conflict risk premiums. They would show investors how a peace bond can materially impact risks at project and country level.
- **Financing of PEMs.** PEMs would be financed by the proceeds of the bond. It is relevant to add that, because PEMs reduce a project's risk, they increase its value.
- **Cost of PEMs.** PEMs need to have positive cost-benefit ratios to be viable, meaning that their benefits with respect to risk premiums must outweigh their cost.
- **Implementation of PEMs.** PEMs would be implemented by partner/s of the issuer or (depending on the nature of the bond) by the issuer.
- **Ambition of PEMs.** The peace impact ambition of PEMs would be likely to depend on the nature of the issuance, and how blended the peace bond structure is in relation to its commerciality. A fully commercial peace bond with no blending would need to finance the whole PEM from bond proceeds. This might reduce its ambition, but might also increase its ambition if the PEM or expected peace impacts could very significantly reduce risk premiums.

→ **Impact assessment framework of PEMs.** The peace impacts achieved by PEMs would need to be assessed by a commonly agreed impact assessment framework.<sup>30</sup>

→ **Verification of PEMs.** PEMs would be verified by independent providers who would assess and audit the peace bond in terms of its alignment with peace bond standards and its achievement of intended peace impacts.

→ **Typology of PEMs.** It should be stressed that PEMs will initially be heterogeneous. Over time, however, as more peace bonds are issued, a more standard PEMs typology may emerge. Whether it does is likely to depend on whether projects sort themselves into projects that have more intentional peacebuilding objectives and projects with peace responsive objectives that focus on lesser peace impacts. Differences between investment sectors may also influence the evolution of PEMs.

In practice, peace bonds that include peace responsive actions (further described later in this report) would very often deploy and apply tools and approaches that have been developed over many years by peacebuilding and development organizations. A wide variety of stakeholder, social engagement and peacebuilding tools are available. They include (but are not limited to) methods for:

- Political economy analysis; conflict and peace analysis; resilience mapping.
- Participatory polling; participatory budget development.
- Participatory monitoring; evaluation and learning by local partners.

→ Social accountability and social listening approaches.

→ Community-led, systemic and participatory action research.

→ Local participatory governance mechanisms.

→ Local and multitrack dialogue and stakeholder engagement approaches.

→ Insider mediation practices and approaches.

It is important to acknowledge that the cost of PEMs and the tools to support them is expected to be comparatively low in relation to the scale of investments linked to peace bonds. There are at least two reasons for this. (1) Peace bonds aim to achieve significant peace impacts and many will be large investments, some over USD 50M: relatively, the physical cost of process-orientated and labour intensive PEMs will be small, especially in developing settings. (2) Though this will depend on the nature of the context, PEMs are likely to be front loaded, because a large part of peace engagement work needs to be done during implementation and in the early stages of investment when risks are highest. This does not preclude long term PEMs in peace bonds, however. PEM costs could be increased by the transaction costs of engaging with different partners, or if it is necessary to deploy investments in more adaptive and context-dependent ways.

The case study section of this report (Section Four) describes several PEMs associated with a specific peace bond structure and investment.

---

30 The announcement made by the International Sustainability Standards Board (ISSB) at COP26 in Glasgow marks an important step towards agreeing international standards for impact assessment in the environmental realm, and is also a significant contribution to international agreed standards on impact.

## 2. Options for peace bond structures

## 2. Options for peace bond structures

A comprehensive array of options is available for structuring, issuing, blending, and distributing peace bonds. Many types of structure and instrument may be suited to peace impacts, just as a range of specific investment areas lend themselves to both peace impacts and bankable returns. While many kinds of fund structure involve equity, this report focuses on bond instruments and specifically on the development of proceeds bonds which raise funds for new and existing projects that incorporate peace actions with a measurable positive peace impact.

Peace bond structures can be classified in terms of the proportion of government finance they receive and the extent to which they are blended and risks are shared. In this sense, peace bond structures fall into three distinct categories:

- **Government peace bonds.** These are issued by a government and the proceeds are aligned to peace bond standards and principles. Such peace bonds will typically fund projects, such as infrastructure projects, whose assets are owned by the State. They are use of proceeds bonds that are characterised by highly intentional peace impacts. Governments would issue such peace bonds because their PEMs lower the risk of the project; investors will also be attracted to them because they will be aligned with peace bond standards and SDG 16.
- **Blended peace bonds.** Commercial peace bonds may be blended with concessional finance if the risk of a project needs to be reduced to attract private investors. Such a structure can involve various forms of guarantee with DFIs or development banks; a first lost tranche;<sup>31</sup> or be a pure debt instrument. Blended peace bonds will be issued by corporate en-

tities or non-government/non-profit actors when the issuers require significant blending (i.e. financial support). It is expected that blended peace bonds will largely fund commercial peacebuilding projects whose intended peace impacts are high.

- **Commercial peace bonds.** These will be issued by corporates when no blending is required and the proceeds are to be deployed for commercial and bankable purposes aligned with peace bond standards and principles. They would be issued in circumstances where the project plus its PEMs reduce risk to the point that the issue can be wholly market-driven.

All three are peace bonds, though their applications could diverge under the influence of their commerciality and their intended peace impacts. Blended peace bonds and commercial peace bonds would seek to align private finance and investment in peacebuilding actions that, in many cases, civil society partners or locally-situated peacebuilding, development and humanitarian organizations would implement using PEMs.

Figure 4 visualises the differences between types of peace bond issuance, based on their intended peace impacts and the degree to which they are commercial. It shows that commercial peace bonds are more commercial than other peace bond structures and that their intended peace impact is slightly lower, reflecting the fact that such projects would tend to be peace responsive and to have indirect peace impacts. By contrast, peacebuilding will tend to be a more prominent feature of blended finance and government peace bonds, which will seek more direct intended peace impacts. Because they include public financial support, these bonds are less commercial but may include commercial elements de-

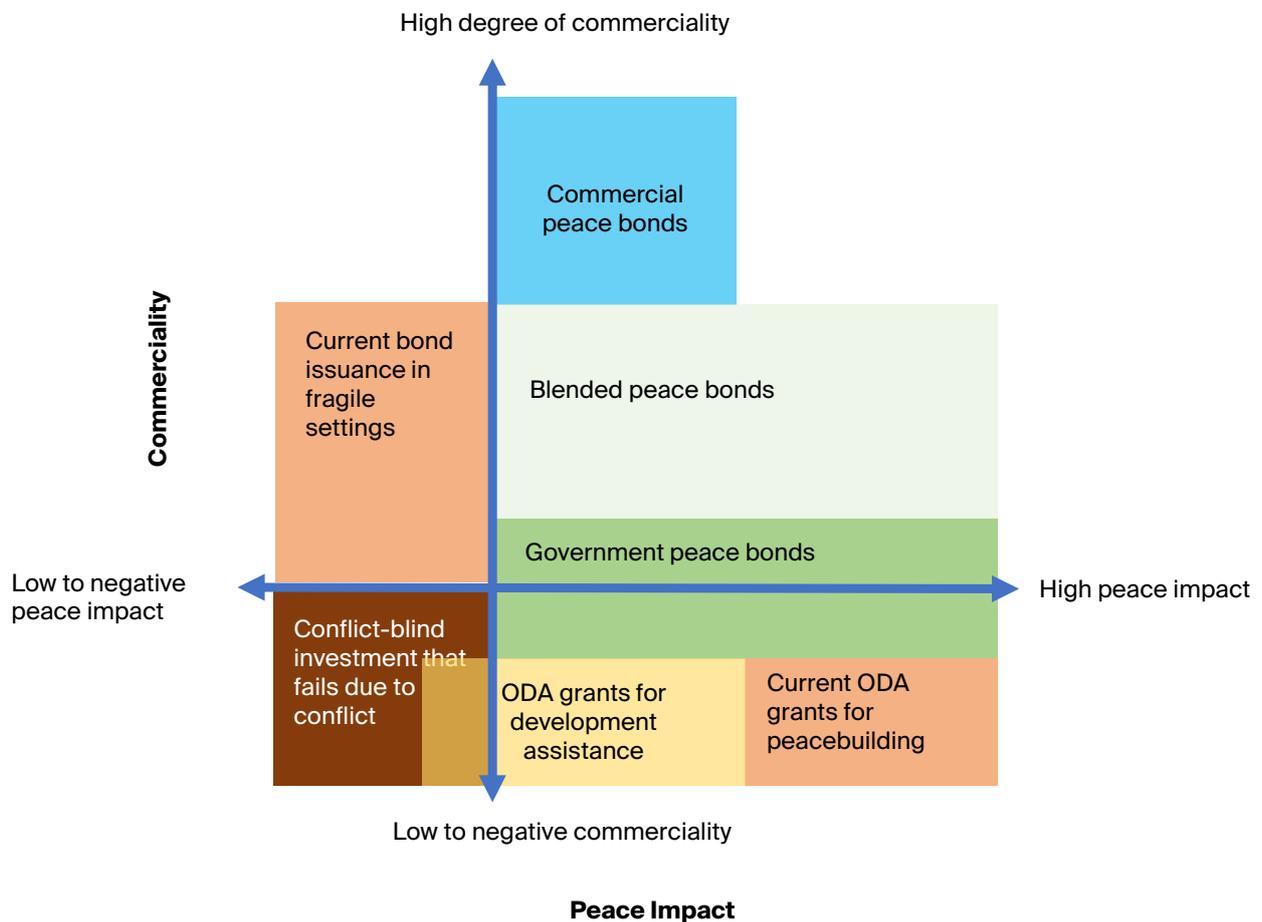
<sup>31</sup> 'First lost tranche' refers to loss (in USD) that an assuming bank must incur before loss sharing starts.

pending on the use of proceeds. Government peace bonds might make a significant impact on commercial projects by funding the infrastructure that is needed to underpin commercial activities. ODA for peacebuilding and development programmes may have highly intentional peace impacts but by definition has zero commerciality.

Figure 4 also shows that bonds that are currently issued in fragile settings generally have no intend-

ed peace impacts and have less commerciality than commercial peace bonds. This is a way of visualising the additionality that commercial peace bonds may bring. Compared to other structures, they increase the commerciality of investments as well as their peace impact. Investments that are conflict blind, and which may fail due to their conflict blindness, represent the worst of the status quo, because the risks they create harm peace and cause commercial failure.

**Figure 4. Schematic representation of the differences between types of peace bond**



Because blended peace bonds involve donor support, through guarantees or other concessional grants of public funds, and because government

peace bonds fund essential projects, most additionality for peace will accrue from commercial peace bonds.

## The peace bond premium

Peace bonds, especially commercial peace bonds, can create at least three different but interlinked forms of additional value relative to standard bonds. This is due to the material and demonstrable impact of PEMs (integrated in the peace bond structure) on risk premiums associated with the investment.

- 1. Improved net present value (NPV).** PEMs integrated in the use of proceeds have a material impact on a project or investment because they reduce its risks and borrowing costs.
- 2. Market premium.** PEMs bring reputational benefits that increase a project’s market value and in principle the demand for peace bonds, if these can verify that they have peace impacts.
- 3. Additionality.** Investments in fragile zones will become more attractive as PEMs improve their NPV and rising demand for peace bonds improves knowledge. More funds will flow into projects in fragile zones and those funds will be deployed more effectively. Additionality is potentially the most important benefit of peace bonds.

Because so few investments have been made in fragile and conflict affected countries, it is often difficult to price the risk premium in these countries; lack of information can lead investors to systematically overprice risk. Supported by peace bond principles and standards as well as PEMs, peace

bonds would directly mitigate project level risks in cost-effective ways, add to the information available about these risks, and thereby make it possible to price them more accurately. If initial peace bond issuances verifiably mitigate project risks, future peace bond issuance in investment sectors with similar risk profiles could benefit from more accurate (and lower) risk pricing.

In simple terms, ‘additionality’ quantifies investment that would not have occurred in the absence of a market for peace bonds. Investments that would have been made anyway (outside the peace bond market) are not additional. Peace bonds have additionality potential because they can help lower project risk to such an extent that marginally viable projects become bankable and fundable. This is particularly important in fragile zones where risk premiums can create prohibitive borrowing costs that PEMs can significantly reduce.

The three benefits can be described as the ‘peace bond premium’. It measures the degree to which, for an issuer, the potential cost of a peace bond is lower than the cost of a standard bond or debt issuance. Table 1 shows that, if a variety of risks can be effectively mitigated by means of peace bond principles and PEMs, at least three types of benefit may accrue. Note that green bonds are included as a reference, to illustrate the additional features of peace bonds relative to both conventional bonds and other use of proceeds bonds, such as green bonds.

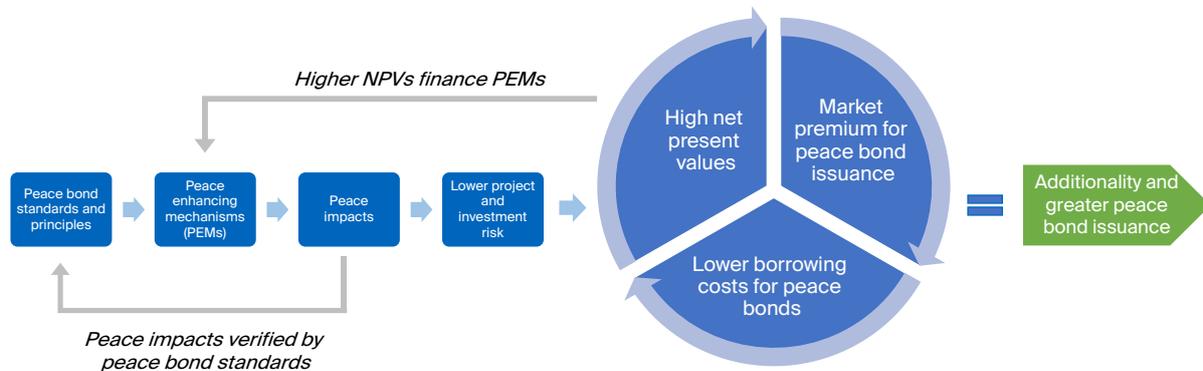
**Table 1. The potential peace bond premium**

*How these benefits accrue can be understood better from the case study in Section Four.*

Bond	Conventional	Green Bond	Peace Bond
Improved NPV (ex ante)	0	0	+
Market premium	0	+	+
Additionality	0	0	+

**Figure 5. Virtuous cycle of the potential peace bond premium**

*By lowering risks, peace bonds will first raise NPVs, then increase market premiums for peace bonds, and finally improve additionality, unlocking significant pipelines of investment and further incentivising peace bond alignment.*



## Commercial peace bonds

As described earlier, fully commercial peace bonds are likely to focus primarily on secondary or indirect peace impacts. They might be issued by corporates or other private sector entities or consortia. Their structures would probably resemble many green or standard corporate bonds, although they would be aligned to peace bond standards and principles and would feature PEMs. To be validated and credited as a peace bond, issuers would need to develop a peace financing framework for PEMs. That framework would outline how the project's proceeds align with peace bond principles and standards and would define the project's PEMs. It would describe how the investment is aligned to PEMs, how outstanding proceeds will be managed, and how the project or investment will report on the use of proceeds and its peace impacts. In a developed market, independent providers would verify the project's alignment with peace bond principles and standards.

Commercial peace bonds would be relevant to a very broad array of eligible projects that have reliable cash flows. Key PEMs would largely focus on secondary or indirect peace impacts but, depending on the context in which they are deployed, might have direct peace impacts. It is envisaged that issuers will prefer to align with peace bond standards and principles because PEMs will increase trust and

local buy-in to the project, and reduce project risks on the bond.

Peace bond alignment will be especially attractive to large investors, such as pension funds that have a fiduciary responsibility to their members to prefer investments that are sustainable, aligned with the SDGs and ESGs, and achieve risk-adjusted returns. Peace bonds can cover a wide range of thematic areas: they can be project specific, geographically specific, or multisectoral, and be located in a variety of geographical settings. Given that the average bond issuance in the blended finance database is valued at USD 126M, peace bonds would be large. While early issues are likely to be niche, a more developed peace bond market could involve fully tradable securities on bond markets, like other forms of bond.

In summary, a typical commercial peace bond would have the following key features:

- It would be aligned with agreed peace bond principles and standards (to be finalised) and so qualify as a peace bond.
- It would focus on a (new or existing) commercial project or project type, that has sound cash flows and business models, and make it more conflict sensitive and peace responsive.

- It would primarily aim to achieve secondary or indirect ‘lower case’ peace impacts (verifiable positive impacts on social cohesion, trust, relations between groups, levels of violence in communities or at local level, etc.). It would achieve these impacts by delivering the project and its proceeds in peace responsive ways.
- It would leverage additional resources for peacebuilding activities and approaches via PEMs, in the way proceeds are used, managed and implemented, and through partnerships developed at local level during the design phase of the investment.
- It might fund a portfolio of diversified projects that more ambitiously and holistically target economic and social drivers of conflict. An

investment manager might also create a peace bond fund that invests in individual peace bonds.

Corporates would be incentivised to align issuance to peace bond principles and standards because the PEMs that are integrated in the use of the proceeds reduce the risk premium of the investment. They would also obtain fiduciary benefits from aligning with peace bond principles and standards.

Commercial peace bonds are likely to be the predominant type of peace bond, and to compose the great majority of issuances in a future peace bond market.

---

## Blended and government peace bonds

Blended peace bonds and government peace bonds would resemble commercial peace bonds in many respects but would also differ, primarily in the degree to which they would be commercial, their focus on primary or direct peace impacts, and the ambition of their PEMs. For instance, where a commercial peace bond is likely to focus on ‘lower case’ peace impacts (improving social cohesion between groups, redressing livelihood conflicts by widening access to resources, deepening trust of the State through better service delivery, etc.), a blended peace bond or government peace bond might also focus on ‘capital’ as well as ‘lower case’ peace. To shore up implementation of a recent peace agreement, for instance, a commercial-grade investment might be guaranteed by a donor and funded in coordination with grant-based peacebuilding activities that have no commercial scope, perhaps with some domestic government support. Such structures would seek to redress the disconnect between international development, peacebuilding and diplomatic responses as well as involve the private sector, and, through integrated and coherent design, use and management of proceeds, achieve well-defined and significant peacebuilding goals.

Peace bonds that are blended, or issued by governments, IFIs or large NGOs, would seek to integrate the peacebuilding and peace-making strategies of various international actors with funding by private investors. In addition, they would facilitate in-

creased private investment in commercial bonds by creating the infrastructure needed to support commercial projects. By these means, they would aim to make peace dividends more attractive, catalysing additional investment via blended and risk-sharing approaches. The objective would be to increase the flow of investment into fragile environments where donor resources for peacebuilding are often insufficient to be effective.

The expectation is that, because blended peace bonds explicitly intend to make peace impacts and are invested in areas associated with high political and other risks, they would be issued by a mix of corporates and public authorities and would include a primary mandate to work on peacebuilding issues. They would therefore be issued by sovereigns and/or IFIs with close government support, by international development, humanitarian or peace organizations, or by United Nations entities. It is envisaged that commercial actors who participate in a blended or government peace bond would need to align fully with peace bond standards and in addition meet strict implementation criteria set by the issuing entity.

In summary, a typical blended finance and government peace bond would have the following features:

- It would be issued by a sovereign or international organization with a peacebuilding man-

date and commercial components would need to be aligned with peace bond principles (to be finalised).

- It would have an explicit peacebuilding and peacemaking intent.
- It would formally blend financial mechanisms with peacebuilding and development actors as well as peacebuilding and development activities.
- It might contain innovative structures, such as risk-sharing mechanisms that would combine

with catalysing grant funds to solidify and reinforce the peace dividends from development and peace-building actions.

- Its contribution during the first phases of peacebuilding and development in fragile zones would be particularly important.
- It would address peace and development challenges in situations where there is significant interplay and mutual interdependence between development and peace actions.

---

## Typology of intended peace impacts that peace bonds can achieve

Establishment of a market for peace bonds could make it possible, through existing private and non-profit channels, to achieve two system-level changes that are necessary for sustaining global peace.

The first systemic change concerns the private sector. A peace bond market would incentivise the private sector to adopt and adhere to higher standards of governance and to conflict sensitive principles more actively and more visibly. Peace bonds would achieve this goal in much the same way that green bonds had a *greening effect* on the global business environment. By fleshing out and emphasising principles and best practices of environmental sustainability, and by providing a specialised financial instrument that increased the availability of credit to eligible environmentally-sustainable projects, green bonds raised environmental sustainability standards and attracted investments to greener outcomes.<sup>32</sup> In the same manner, by defining and emphasising measurable and identifiable sustainability criteria for peace, and providing access to more credit on this basis, peace bonds would stimulate a market shift towards business practices that sustain and advance peace.

The second systemic change relates to non-profit and grant-based international co-operation. A peace bond market would enable development and humanitarian organizations to better align their efforts with peace outcomes and the humanitari-

an-development-peace nexus (HDPN). To date, efforts in this direction have been slow, and little progress has been made in conflict sensitivity. The creation of a peace bond market, to privately finance development interventions that have a profit logic, would force all actors to ask how given interventions would contribute to peace and conflict dynamics, placing this issue in the foreground of programme design.

Operationally, the creation of a peace bond market would enable or further reinforce two critical levels of work for sustaining peace. First, it would extend peacebuilding objectives into development work. Certain development projects would be consciously structured to address drivers of conflict that peacebuilding cannot fully address alone. For instance, they would resolve conflict-inducing scarcities of food and water. Peace responsive development and humanitarian programming would then reinforce the peace impacts of such development and humanitarian activities.

Embedding peace impacts in the primary objectives of development and humanitarian programmes could also extend the reach of peace-enhancing and peacebuilding work beyond its usual areas of geographic coverage in sub-Saharan Africa and the Middle East and North Africa (MENA). Finally, peace bonds would generate long-term funding for peacebuilding commitments.

---

32 Maltais, A., Nykvist, B. (2020), 'Understanding the role of green bonds in advancing sustainability', *Journal of Sustainable Finance & Investment*, pp.1-20. At: <https://www.tandfonline.com/doi/pdf/10.1080/20430795.2020.1724864>.

**Table 2. A general typology of peace impacts from peace bonds**

Effect: peace bonds would...	Target	Peace impact opportunities: peace bonds would...
Influence private capital actors to adopt peace enhancement as a sustainability criterion.	Private investments.	<ul style="list-style-type: none"> <li>• Address market drivers of conflict by influencing market dynamics.</li> <li>• Address service- and development-based drivers of conflict.</li> <li>• Address scarcity and resource management as a driver of conflict.</li> <li>• Contribute to sustainable livelihoods.</li> </ul>
Influence development and humanitarian action to become peace responsive.	Current development and humanitarian commitments.	<ul style="list-style-type: none"> <li>• Ensure that project design and implementation are conflict sensitive and peace responsive.</li> <li>• Ensure development and humanitarian commitments reverse and do not exacerbate conflict dynamics.</li> <li>• Increase resilience to conflict.</li> </ul>
Mobilise new private capital, humanitarian, and development projects for peace in strategic areas.	New development and humanitarian commitments.	<ul style="list-style-type: none"> <li>• Resolve development-based threats to peace.</li> <li>• Leverage opportunities to increase trust and resilience via humanitarian and development interventions.</li> <li>• Catalyse private capital to (re)build sustainable livelihoods and basic services in conflict affected areas and prevent relapse.</li> </ul>
Make space for more peace-enhancing and peacebuilding work in non-priority fragile contexts by making use of development, humanitarian and private capital pipelines.	Regions that could benefit from but do not receive peacebuilding or peace enhancing investments.	<ul style="list-style-type: none"> <li>• Address peacebuilding challenges whose main drivers are economic.</li> <li>• Address peacebuilding challenges that relate to gang violence and criminal organizations.</li> <li>• Include challenges outside Africa and the MENA region that tend to receive substantially less global attention.</li> <li>• Solve conflict challenges to development.</li> <li>• Encourage equitable development outcomes that help societies to transition out of conflict dynamics.</li> </ul>
Promote peacebuilding projects on a larger scale and over a longer timeframe.	Communities, the peacebuilding ecosystem, and government donors.	<ul style="list-style-type: none"> <li>• Provide space for planning long-term peacebuilding. Seek sustainable impact rather than immediate results.</li> <li>• Support ambition and scale efficiencies in peacebuilding. For example, they would target populations in conflict but also surrounding affected areas and populations.</li> <li>• Encourage anticipatory action and prevention, and reinforce pillars of peace in vulnerable societies.</li> </ul>

### 3. Key stakeholders and issuance of peace bonds

# 3. Key stakeholders and issuance of peace bonds

---

## The principal stakeholders in peace bond structures

A **peace bond issuer** (issuer) identifies peace-enhancing opportunities, develops peace financing frameworks, signs an agreement with **project owners** to implement peace enhancing or peace building projects, collects financial returns from projects, and repays the principal and coupon to investors. In some cases the issuer may also be the project owner.

The **project owner** or **financial sponsor** may be a private or public company or a private-public joint venture. The contract between the peace bond issuer and the project owner may take different forms: a conventional fee-for-activity contract; a private-public partnership; or an outcome-based contract. Alternatively, project owners may receive proceeds from a peace bond in the form of a loan from the issuer. In some cases, the project owner may also be the issuer.

**Investors** provide funding to peace bond issuers on the condition that proceeds are used exclusively to partly or fully finance or re-finance new or existing projects that seek to have a peace impact. Funding is provided at market rate and is contingent on prior third-party verification of the bond issuer's peace financing framework.

**Transaction services or financial managers** provide conventional transaction services during and after the bond issue. They draft necessary legal documentation, sell the bond to investors, and form syndicates of other financial institutions that assist in issuing the bond.

**Verification and certification agents** play a dual role in the peace bond market. Pre-issuance, they review the peace financing framework or peace bond and decide if the framework aligns with

peace bond principles and standards. Post-issuance, they assess the impact of peace-enhancing or peace-building projects and judge whether they meet agreed peace impact assessment criteria. Third-party verification is key to the credibility of the peace bond market.

**PEM implementors** are either individual civil society, local or international peacebuilding and non-government organizations, or consortia of such organizations. They contribute relationships, knowledge of context, or partnership building capacity, and help implement PEMs funded by the peace bond. In a developed peace bond market, they are recognised by verification and certification agents as meeting an audit level standard that qualifies them to conduct PEM actions.

**Communities** are the direct and indirect beneficiaries of an investment, local or national government stakeholders, or other actors relevant to the project area or the investment. They are a primary target and stakeholder for PEM implementors.

Other key actors may feature in peace bond structures that are less commercial in nature, are issued by a government, or involve blended forms of finance, or other forms of grant-based financing.

**Development finance institutions (DFIs) or government donors** may provide blended finance to mobilise commercial private investments. DFIs may use concessionary financing in the form of guarantees or insurance to convince investors to provide capital at market rates to a peace-enhancing or peacebuilding project.

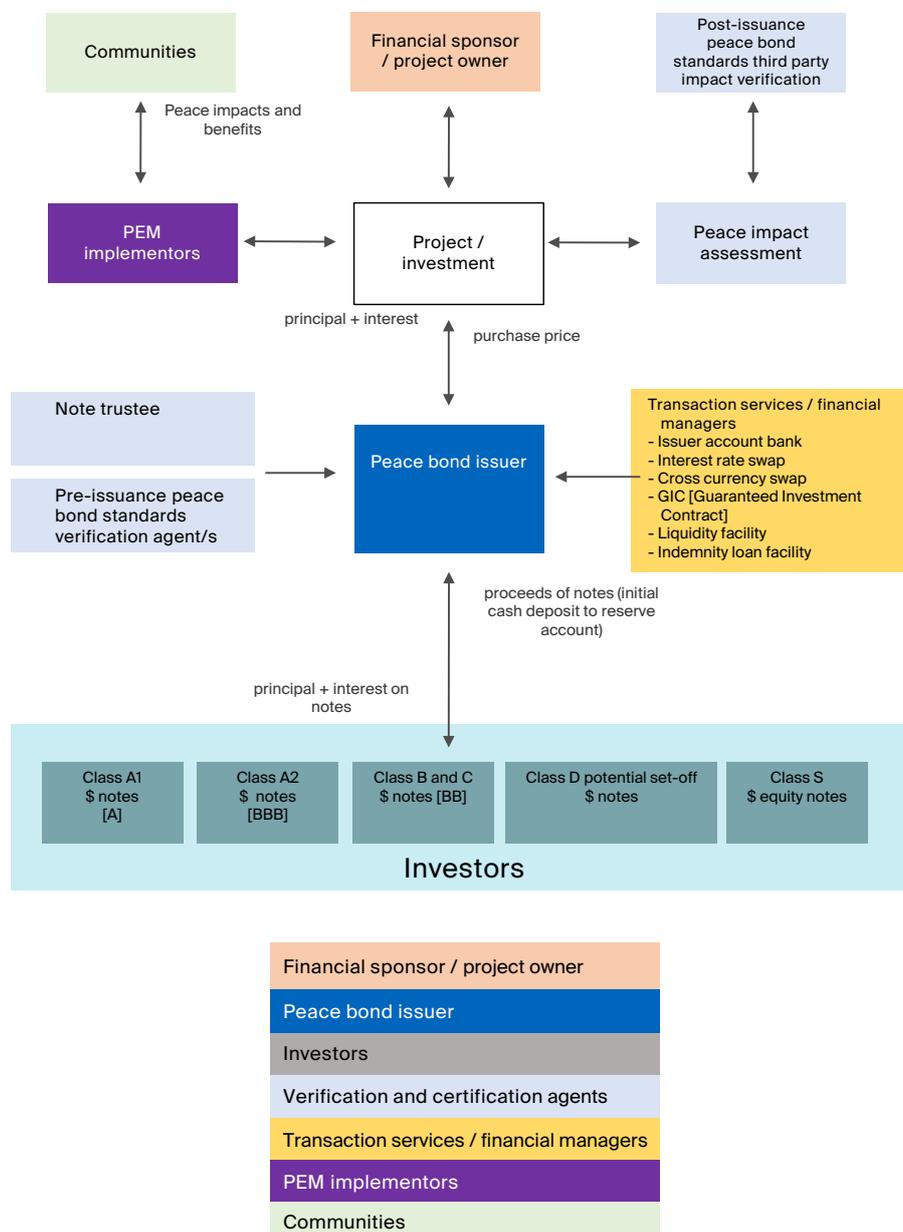
**Peace finance advisors** may also play a role in a peace bond market. They might support issuers

to develop peace financing frameworks and verify that the framework is aligned with peace bond standards. Advisors might include the lead manager, another bank, or a non-financial institution. Many organizations that work for the development of peace bonds are likely to be non-financial institutions: they may work with issuers to develop eligible projects, agree their structure, and design ap-

propriate PEMs. Such actors (who are not shown in figure 6) could become important players in an emerging peace bond market because they would represent organizations that work at the nexus of peace and finance and are equipped to design appropriate PEMs for particular investment sectors and structures.

**Figure 6. Key stakeholders and their roles in a generic peace bond structure**

*The colour-coded legend shows at least six different roles are active in a commercial peace bond structure. Peace finance advisors (not listed) might also help to drive its development.*



Key actors in a generic peace bond issuance process

---

## Peace bond issuance process

Peace bonds can be issued as either a public or a private placement bond. Most public bonds are rated by one or more credit rating agencies, giving investors an idea of the quality and riskiness of a bond. Most private debt has no credit rating. This means that fewer investors can participate in the private placement market. Public bonds are liquid assets that are actively traded on the secondary market. By contrast, private assets tend not to trade regularly and consequently no readily observable market prices are available for them. For this reason, issuers of private debt tend to pay higher yields to compensate investors for being unable to readily exit their position. Issuers of private bonds need to offer a higher return to compensate investors for the asset's illiquidity.

Public and private bonds also differ in terms of securitization. In general, issues on the public bond market are unsecured (not backed by assets that could be sold to repay the investor in the event of default). In the private debt market, almost all issues are secured, thereby reducing the risk for investors. Private placement deals also offer investors more influence over the negotiation and structuring of the debt than public bonds because they involve only a small group of investors. Private debt investments are usually more tailored to the specific needs of the company or asset being financed. Additionally, private bonds almost always include some form of financial covenant and enable investors to negotiate amendments post-issuance. For instance, they may set a trigger level of debt or profitability at which investors may intervene to reduce risks.

The processes for issuing a peace bond and a regular bond would be broadly similar. That said, peace bonds would make clear that they contribute to peace responsive or peacebuilding projects. The process of issuing a peace bond would have three stages.

- 1. Pre-launch.** Before a bond is issued, the issuer needs to decide how it wants to structure the issue. For example, does it wish to place the bonds in the public or private debt market? The issuer must also decide when the bond will ma-

ture. In addition, the issuer may decide to split its debt financing needs into several bonds that have different maturity dates, coupon rates, repayment conditions, etc.; these may all be issued under the same framework and at the same time.

During the pre-launch phase, the issuer will appoint a lead financial manager, who arranges the transaction, including the sale of the bonds, preparation of legal documents, and settlement procedures. If deemed necessary, the lead manager will assist the issuer to obtain the opinion of a credit rating agency on the quality of the bond. The issuer will also mandate a peace finance advisor.

Next, with support from the peace finance advisor, the issuer develops a peace financing framework. Having finalised a draft version of the framework, the issuer, the lead manager and the peace finance advisor select a third-party organization to review the framework and verify that it is in alignment with peace bond standards. This will require iterative dialogue between the parties.

Once the independent reviewer has verified that the peace financing framework is in line with peace bond standards, the issuer and the lead manager will produce offering documentation. This will include a term sheet that sets out basic terms and conditions (principal, coupon, tenor, maturity date, etc.) and a presentation of the offering to investors.

In a public placement, issuers also need to prepare a preliminary prospectus, a legal document that provides all the relevant details of a bond offered for sale to investors. It includes information on timing and conditions of debt payments, financial statements by the issuer, and a statement of investment risks.

In a private placement, the issuer may not be required to publish a prospectus or comply with the extensive disclosure requirements applicable to public offerings. Investors may still

require an offering memorandum, which is a legal document that states the objectives, risks, and terms of a private placement investment.

**2. Marketing.** The lead manager announces the bond issue publicly and promotes the transaction to prospective investors, inviting them to buy the bonds once they are issued. If the bonds are placed in the private market, lead managers may not announce the deal publicly and instead may contact a small group of prospective issuers directly.

On or just after launch, the lead manager also sends the proposed terms of the bond issue to prospective managers, who review it and decide whether to join the syndicate and act as managers. Forming a syndicate of banks is usually not necessary if the bond is placed in the private market.

If the bonds are to be listed in the public market, the rules of the relevant listing authority need to be followed. It may be necessary to appoint a listing agent to liaise with the listing authority and stock exchange.

**3. Issuance.** In the public bond market, this step involves a signing. The managers sign the subscription agreement, agreeing to subscribe the bonds on closing. Other documents that need to be dealt with at signing usually include the

prospectus, agent appointment letter, and escrow documents.<sup>33</sup>

During the closing of a public bond issue, the fiscal agency agreement or trust deed is signed, and the bond instrument is created. The issue is concluded when the investors receive the bonds from the issuer in exchange for payment of the purchase price of the bonds.

Issuance processes in the private bond market are less regulated and may involve fewer steps, which may significantly reduce costs and lead times.

**4. Post-issuance.** The issuer pays interest to the bondholders as agreed until the bonds reach maturity, when the issuer will repay to the bondholders the principal amount of their original investment. Payments are handled by the financial agent. In the case of private bonds, repayment modalities may be changed post-issuance.

Table 3 shows the issuance process of a public peace bond. The timeline is based on current lead times for the issuance of a green bond and assumes that peace bonds will become a mainstream instrument in a similar manner. However, it can be expected that peace bonds will take significantly longer to issue in the early stages of a peace bond market.

**Table 3. The expected process and timeline for issuing a peace bond**

Issuance process		w.1	w.2	w.3	w.4	w.5	w.6	w.7	w.8
General	Kick-off								
	Engagement letters								
	Engage lead agent								
	Engage peace finance advisor								
Credit research	Preparation								
	Publication								

<sup>33</sup> Escrow is a legal arrangement in which a third party temporarily holds sums of money or property until a particular condition has been met (such as fulfilment of a purchase agreement). It is used to protect both the buyer and the seller.

Issuance process		w.1	w.2	w.3	w.4	w.5	w.6	w.7	w.8
Peace financing framework	Drafting								
	Review process								
	Final third-party verification								
Documentation	Term sheet								
	Prospectus								
	Investor presentation								
	Investor invitation								
Marketing	Mandate announcement								
	Roadshow meetings								
	Investor presentation								
	Bookbinding, pricing, allocation								
Issuance	Signing of agreements								

## Fiduciary considerations

Institutional investors, such as pension funds and asset managers, have a fiduciary responsibility to act in the best interest of their beneficiaries. Regulations on fiduciary duty define how institutional investors make investment decisions. How trustees interpret these can significantly influence their willingness to invest in bonds that have commercial and peace-related objectives.

Interpretations of fiduciary duty in some countries and jurisdictions recognise that ‘acting in the best interest’ of beneficiaries is not necessarily restricted to financial outcomes. Many pension funds now include positive impacts on environmental, social and governance (ESG) issues in their investment policies and the mandates of asset managers. Globally, over 730 hard and soft law policy revisions, across some 500 policy instruments, support, encourage or require investors to consider long-term value drivers, including ESG issues.<sup>34</sup>

The movement to embed ESG objectives in investment decisions has been championed by the United Nations Environmental Programme Financial Initiative (UNEP FI) which launched the Principles for Responsible Investments (PRI) in 2006. More

than 3,750 financial institutions, holding more than USD 120 trillion in assets under management, have signed up to the principles. Signatories undertake to integrate ESG objectives and to align investors with broader social objectives, where to do so is consistent with fiduciary responsibilities.

In the United States of America (U.S.), private sector retirement plans are subject to the provisions of the Employee Retirement Income Security Act (ERISA), which is regulated by the U.S. Department of Labor (DOL). The Act sets standards for fiduciaries of defined benefit and defined contribution plans based on a prudent person standard. Under ERISA, plan sponsors and other fiduciaries generally must (1) act solely in the interest of the plan participants and beneficiaries, (2) invest with care, skill, and diligence, and (3) diversify plan investments to minimise the risk of large losses.

DOL guidance on ERISA has changed several times under different political administrations. However, it has consistently affirmed that plan fiduciaries must make investment decisions in accordance with ERISA’s two key fiduciary duties of loyalty and prudence. The most recent proposed guidance (in Oc-

<sup>34</sup> Principles for Responsible Investment and UNEP Finance Initiative(2020), ‘Fiduciary Duty in the 21st Century’. At: [Fiduciary Duty - Fiduciary Duty in the 21st Century \(fiduciaryduty21.org\)](https://www.unglobalcompact.org/resources/publications/fiduciary-duty-in-the-21st-century).

tober 2021)<sup>35</sup> signalled a more permissive regulatory environment for fiduciaries with respect to ESG objectives. Specifically, the proposed rule would remove the pecuniary factors test and instead require that a fiduciary's investment evaluation must be based on risk and return factors that are material to investment value, considering the funding policy of the plan.

In the European Union (EU), pension funds are regulated by EU Directive 2016/2341 on the activities and supervision of Institutions for Occupational Retirement Provision (IORPs). The directive instructs pension funds to consider ESG considerations related to investment assets in their investment decisions. Asset owners and managers from the EU, as well as foreigners that market products to EU investors, also must follow the Sustainable Finance Disclosure Regulation (SFDR), which took effect in March 2021. It requires fund managers to evaluate and disclose how sustainability risks affect investor returns and, conversely, how investments impact sustainability factors.

Regulators and supervisory authorities in the EU and its member States are currently developing SFDR guidelines that are aligned with the EU Sustainable Finance Taxonomy (EU Regulation 2020/852). The EU taxonomy covers social as well as environmental issues. A draft version of the social taxonomy focuses on products and services that are essential to promote adequate living standards, improve access to basic economic infrastructure, and sustain inclusive and sustainable communities without harming human rights.<sup>36</sup>

Regulations in other jurisdictions also recognise that ESG objectives are part of fiduciary duty.<sup>37</sup>

The UK Pension Protection Fund and Occupational Pension Schemes (2019) states that “financially material considerations” include (but are not limited to) environmental, social and governance considerations that the trustees of a trust scheme consider to be financially material. A 2015 amendment to the National Pension Act of Korea requires the National Pension Service (NPS) to consider ESG issues and to declare the extent to which they are taken into account. South African and Brazilian regulators require pension funds to consider ESG factors relevant to their long-term success.

Most of the above-mentioned changes in fiduciary duty seek to incorporate ESG factors that are financially material in investment decisions, consistent with the timeframe of the obligation. This involves assessing an investment's positive or adverse impact on society and the environment (for example, broadening access to education, or worsening greenhouse gas emissions). It also involves assessing the impact on those who invest in the economy and society (for example, the threat to business continuity posed by ethnic tensions, the harm to physical assets caused by climate change).

Modern interpretations of fiduciary duty also expect financial decision-makers to take account of the sustainability preferences of beneficiaries/clients, regardless of whether these preferences are financially material. This is already common practice in many pension funds that follow an exclusions-based strategy and in equity funds that aim to achieve an ESG impact. Modern understandings of fiduciary duty also assume that asset owners should exercise active ownership by encouraging the companies and entities in which they invest to improve their ESG performance.

---

35 Department of Labor, Employee Benefits Security Administration (2021), 'Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights'. At: [Federal Register :: Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights](#).

36 EU Platform on Sustainable Finance (2021), 'Draft Report by Subgroup 4: Social Taxonomy'. At: [sf-draft-report-social-taxonomy-july2021\\_en.pdf \(europa.eu\)](#).

37 Principles for Responsible Investment and UNEP Finance Initiative (2020), 'Fiduciary Duty in the 21st Century'. At: [Fiduciary Duty - Fiduciary Duty in the 21st Century \(fiduciaryduty21.org\)](#).

---

## Potential risks and management options for peace bond investors and issuers

**Issuers of commercial peace bonds** are permitted to use credit enhancement measures to lower the interest rate they must pay to bond investors. Credit enhancement may convince institutional investors that are required to invest only in investment grade securities to buy peace bonds whose proceeds are earmarked for high-risk markets.<sup>38</sup>

*Bond insurance.* Issuers can purchase bond insurance. This provides to bondholders a guarantee that they will be repaid the principal and all associated interest payments in the event of default. The insurance company takes the risk of the issuer into account to determine the premium the insurer will receive as compensation. Bond insurance is generally restricted to securities that have underlying ratings in the investment-grade category.

*Bank guarantee/letter of credit.* These promise bond investors that the issuer will be able to fulfil its payment obligations even in case of default. Bank guarantees and letters of credit both provide assurance to lenders that, if the borrowing party cannot repay what it owes, the financial institution will step in on behalf of the borrower.

Issuers of peace bonds face additional risk if they decide to issue project bonds. A project bond is a bond issued to the capital markets to fund all or part of a single project. It replaces conventional use-of-proceed bonds that finance a variety of projects. Project bonds generally cannot achieve a satisfactory credit rating unless the construction phase has been completed or investors are protected in some way against construction and other risks.

*Project-specific credit enhancement.* This may take the form of a funded commitment (such as a subordinated loan) or an unfunded contingent commitment (such as a letter of credit or guarantee). Unfunded letters of credit are preferred by the market. They are typically drawn when cost overruns occur, to cover debt service, to satisfy financial covenants, or when it is necessary to make

an accelerated repayment. In the early stages of a commercial peace bond market, it is assumed that blended finance solutions (such as concessional guarantees or equity) may be needed to lower the risk of projects and attract institutional investors.

Another risk that affects project bonds is 'negative carry'. This arises because all the proceeds are received upfront on issuance of a bond, whereas capital expenditure is incurred over a construction period of months or years. Issuers need to pay interest on the entire amount of the project bond, even though not all proceeds are needed at the start of the investment.

*Delayed draws.* Funds are made available by investors over time via multiple draws. Draws can be of different sizes to match a project's capital expenditure requirements. No commitment fees are paid on the undrawn amount of the project bond.

*Hybrid financing.* This solution combines a project bond with delayed draws and a bank facility. The project bond is sized to cover the first three to six months of construction costs. It is issued first. The bank facility is drawn on once the proceeds of the project bond have been expended.

To attract investments, peace bonds also need to match investors' expectations and investment strategies. Historically, investors have purchased bonds for several reasons, including to preserve capital, raise income, diversify, and hedge against economic downturns or deflation. Underlying these motives is a general perception that investment in bonds carries less risk than investment in other financial securities, such as equities or commodities. This perception is based on the calculation that, irrespective of the macroeconomic situation and stock market swings, bond agreements provide investors with a fixed income of coupon payments and require borrowers to repay the principal on a predetermined date (at maturity).

---

<sup>38</sup> As with most green bonds issued to date, in a more mature market the risk premium of most peace bonds will be determined by the creditworthiness of the issuing entity, rather than underlying peace-enhancing assets or projects. At the inception of a peace bond market, risk premiums would be more project-based; as companies developed larger portfolios, the market would increasingly price risks based on the issuer.

Investors may also buy and sell bonds before they reach maturity to take advantage of bond price gains. The value of an outstanding bond can appreciate

if interest rates drop or the credit rating of the issue improves.

## Peace bond investors face several risks and have various tools at their disposal to manage them.

*Credit risk.* The issuer may default before the bond reaches maturity or fail to fully repay its obligations to the investor at maturity. An issuer with a high credit rating will pay a lower interest rate than one with a low credit rating. Independent credit rating agencies assess the credit risk of bond issuers and publish credit ratings that determine the interest rates on individual bonds and help investors to evaluate risk.

*Interest rate risk.* Bond prices tend to drop when interest rates rise, and vice versa. The interest rate is likely to be of particular concern to investors who do not plan to hold a bond to maturity. Exposure to interest rate risk increases with the length of a bond's maturity. Investors usually demand higher yields from longer-term bonds than from bonds with shorter maturities.

*Call risk.* Declining interest rates may expose bondholders to the risk that an issuer will decide to pay off the debt before it matures and issue new bonds at a lower rate. Bonds paying higher yields are most susceptible to call risk.

*Inflation risk.* This is the risk that the income produced by a bond investment may fall short of the current rate of inflation. High-yield bonds are usually less susceptible to inflation risk than high-quality bonds.

*Market risk.* If a bond's price falls after acquisition, the investor will lose part of the principal at sale if it is unable to hold the bond until maturity. To mitigate exposure to market risk, investors evaluate their overall cash flow projections and fixed expenses between the date they plan to purchase a bond and its maturity date.

As outlined in more detail below, the PEMs included in peace bonds reduce the risks of issuers and bondholders in two main ways. For the issuer, PEMs can reduce the project-specific risks of an individual peace bond and so improve the issuer's credit rating. For the investor, PEMs can raise the price of a bond in the secondary market, by raising the NPV of its underlying assets or projects above market expectations ahead of the bond's issuance.

---

## Transaction costs

Pre-issuance, the transaction costs of peace bonds include the costs of the peace finance advisor, who assists the issuer to develop a peace financing framework, get the framework verified by an independent provider, and market the bond to investors. These costs would be covered by the bond fees of the inaugural issuance. Assuming a bond size of USD 100M and a maturity of 5 years, these fees could accumulate to around 0.15% – 0.25% of the bond's value, or USD 150-250k, depending on the complexity of the framework and associated activities. Costs for the independent provider are estimated at between USD 15-30k.

The cost of a credit rating differs according to

whether the rating is based on the borrower's creditworthiness in general terms or on a particular bond and its underlying assets. Project bonds would fall in the second category. As outlined above, the assumption is that the credit rating of peace bonds will be based in most cases on the creditworthiness of the issuer. Where that is the case, the credit rating for a single bond is expected to cost USD 150-200k.

The costs of the financial managers, who draft legal documents and manage marketing, bookbinding, pricing, allocation, and signing of agreements, are usually integrated in the overall bond fee. These costs depend on the maturity of the bond and are es-

estimated to be about 0.10% for a three year maturity, 0.125% for a 5 year maturity and 0.15% for a ten year maturity. The fees of different types of issuer (supranational, sovereign, government agency) also vary.

Post-issuance, the costs for the paying attend are approximately USD 2-3k per year. The costs of impact reporting could be added to the cost of external auditing services that issuers procure.

## 4. Market analysis of peace bond opportunities

# 4. Market analysis of peace bond opportunities

## Thematic sectors on which peace bonds will focus

This report has described some typical direct and indirect peace impacts as well as ‘lower case’ and ‘upper case’ peace impacts. Just as green or social bonds fund projects that contribute to ‘green’ or ‘social’ outcomes, peace bonds seek to produce ‘peace outcomes’. However, compared to green and social outcomes, they are more multidimensional and as a consequence broader in scope. A peace impact can result from a wide spectrum of development actions and a wide variety of private sector-driven activities. As the report has described, the potential of a peace impact is highly influenced by the overall context in which an investment or development action unrolls, how it is conducted, how communities are involved, who are involved, and who benefits.

In peace-enhancing finance, peace responsive approaches can play a key connecting role. First, they can extend peace impacts beyond the specific mandates of peacebuilding actors. Second, they can connect investment in sustainable peace to investments in ‘bankable’ sectors that are financially more attractive. When assessing eligible sectors and activities, it is clear that certain development interventions and commercial activities, with specific forms of cash flow and business logic, produce the best opportunities to combine peace impacts and commerciality. While these will become better understood as they are tested under market conditions, this report suggests some feasible starting points, having reviewed a spectrum of development interventions in fragile and conflict affected settings.

Three key investment sectors of significant opportunity stand out:

- 1. Energy.**
- 2. Water, sanitation and hygiene (WASH) and water resources.**
- 3. Agriculture, food security, and land use.**

The rationale for these choices, and their peace impact logic and commercial potential, will be set out separately. In many situations, however, not only is it clear that investment in these sectors can maximise peace impacts and commercial returns: they also interconnect. For instance, water resource development and sustainable energy are often combined in major infrastructure investments.

Other sectors appear to have peace impact potential but to demonstrate this requires further research. They include (but are not limited to) the following sectors:

- Infrastructure: transport and public works.
- Education.
- Financing and specifically micro credit, financial inclusion and accessible finance.
- Health care.
- Services, specifically community-based tourism.
- Technology and telecommunications.

## Energy

Conflict affected and fragile areas have significant energy needs. These can be met in a number of ways, that tend to promote peace or to induce conflict. In Africa, energy deficit and conflict dynamics clearly intersect. It is estimated that 57% of Africans do not have access to electricity; they compose almost 70% of the world's unelectrified households. In sub-Saharan Africa, the proportion of unelectrified households is even larger and in eight countries the population is growing faster than the rate of new electrical connections.<sup>39</sup> This situation is largely due to insufficient generation capacity, the imperfect reach of transmission networks, and the inability of potential consumers to finance off-grid and mini-grid alternatives.<sup>40</sup>

There is a vast literature on energy, resources and conflict, and many investment and development approaches are being explored to address these problems. This work shows that renewable and decentralised energy production, specifically solar, has great peace promotion potential, and that well-designed, established business models and cash flows can be matched with peace bond structures. The focus below is on renewable energy, but the same principles may apply to non-renewable energy sources.

## Peace impact potential and pathways

When considering energy and peace, important distinctions need to be made at several levels. In terms of their potential to promote peace, renewable and non-renewable energy sources need in particular to be considered separately. Non-renewable sources of energy make an important contribution to development and their extraction can be made more conflict sensitive and more peace responsive if action is taken to engage local civil society and peacebuilding actors:<sup>41</sup> nevertheless, entire sub-literatures (on environmental peacebuilding, on environmental sociology, on ecological economics, on environmental political economy) have produced evidence for believing that oil, gas and coal extraction (as well as the extraction of other miner-

als) is deeply entangled with patterns of corruption, political instability and violent conflict.<sup>42, 43</sup>

Renewable and decentralised energy systems therefore have the most potential to promote peace and are the most eligible projects for peace bonds. Here too, however, different forms of renewable energy must be distinguished. Biofuels/biomass, hydro-power, solar power, wind power and geothermal energy each have different positive and negative characteristics that influence their technical requirements and outputs. Their potential to worsen conflict or promote peace can therefore vary, depending on the context.

---

39 Shell Foundation, Rockefeller Foundation (2021), 'Unlocking Climate Finance to Accelerate Energy Access in Africa'. At: [PowerPoint Presentation \(shellfoundation.org\)](#).

40 World Economic Forum, Deloitte (2021), 'World Economic Forum Regional Action Group for Africa: Financing the Future of Energy'. At: [World Economic Forum Regional Action Group for Africa Financing the Future of Energy | World Economic Forum \(weforum.org\)](#)

41 Champain, P. (2020), 'Power, Peace, and Place: Why firms account for their actions: Multi-stakeholder voices and the Therma South story', International Alert Philippines, DMGENCO. At: [Power-Peace-and-Place-Why-firms-account-for-their-actions\\_2020.pdf \(international-alert.org\)](#).

42 Karl, T. (1997), *The Paradox of Plenty: Oil Booms and Petro-States*, University of California Press.

43 Arce, M., Moran, R. (2020), 'Extractive Conflicts in the Developing World', *Journal of International Affairs*, Vol. 73, No. 2. At: <https://jia.sipa.columbia.edu/extractive-conflicts-developing-world>. Ecological economist Arnim Scheidel and his co-authors documented 573 environmental conflicts related to mining in 2020; most occurred in Latin America and Sub-Saharan Africa. Note that authors disagree about the degree to which there is a causal relationship: see O'Brochta, W. (2019), 'A meta-analysis of natural resources and conflict', *Research and Politics*, Vol. 6, Issue 1, at: <https://journals.sagepub.com/doi/10.1177/2053168018818232>.

Biofuels, for instance, can create bad incentives that displace crop production, increase food prices, and ignite land or environmental disputes.<sup>44</sup> Large conflict-insensitive hydropower projects can displace enormous volumes of water, affecting livelihoods, land use and water availability, and possibly triggering conflict between countries that share transboundary water courses. Solar and wind installations can consume large areas of land, which can trigger land use conflicts if approaches are conflict-insensitive. More generally, renewables can indirectly exacerbate certain drivers of conflict because they stimulate production and mining of essential materials, such as rare earths, lithium and cobalt. Mining of tin, tungsten, tantalum, gold and other key materials is vital for renewable power systems; their supply chains may also induce conflict in some settings.<sup>45</sup>

It is of course positive that renewable energy systems generate lower greenhouse gas emissions (GHG), and may reduce water pollution; but their benefits are uneven. Solar and wind have unique advantages in that they require virtually no water resources to operate and can be used for low energy desalination and to pump water. This reduces tensions and also competition for water resources. Moreover, where a large-scale electrical grid does not exist (as in most of Africa), renewables can support decentralised energy systems that can meet energy needs without causing the pollution and health problems associated with diesel, wood, coal, candles, and kerosene – all of which are expensive for users and harm public health. Negative externalities often contribute to conflict dynamics, by making livelihood conflicts more acute or putting pressure on health systems and thereby undermining State-society relations.

Perhaps most critically, adoption of decentralised energy can reduce structural dependence on centralised forms of energy production that often stimulate competition and conflict. Conversely, the capacity of local forms of renewable energy to promote peace can be explored. While aspects of re-

newable energy can therefore be described as intrinsically good, the actual peace benefits they bring will depend on the context and *how* decentralised energy is developed and distributed. Some research has found that renewables may cause local, small-scale conflict but reduce larger-scale patterns of grievance that are linked to civil wars or geopolitical conflicts.<sup>46</sup> They compare to some cases of transboundary water management, which displace water resources in ways that may reduce inter-State water competition but trigger new local sub-national and community conflicts.

Evidently, investments that increase local conflict are also associated with increased risks, especially to the asset. These can be mitigated if peace enhancing mechanisms are integrated into a project's design and use. Because the cash flow of decentralised energy investments depends on individuals and communities paying for the energy they use, such projects have a particularly direct incentive to deploy PEMs. For corporate issuers, verifying that their renewable and decentralised energy initiatives are aligned with peace bond principles is a key incentive.

Finally, while providing access to energy meets critical developmental needs, it cannot be divorced from the impacts of climate change, on the world and on conflict-prone places in particular. Energy sources that are environmentally or socially unsustainable are likely to be conflict insensitive because they will directly or ultimately exacerbate climate change, which in many settings drives conflict.

Like agriculture interventions, energy interventions have multiple peace pathways. They may:

1. Improve social capital, both horizontally (inter- and intra-community) and vertically (between communities and the State).
2. Strengthen local conflict management and governance capacities, including over natural resources.

---

44 Edwards, I. (2018), 'The role of decentralized renewable energy in peacebuilding', Quaker UN Office. At: [Inputs from Quaker United Nations Office\\_Role.pdf \(unfccc.int\)](#).

45 Ralph, N. (2018), 'Ensuring Renewable Energy Doesn't Fuel Conflict', Australian Institute of International Affairs. At: [Ensuring Renewable Energy Doesn't Fuel Conflict - AIIA - Australian Institute of International Affairs](#).

46 Vakulchuk, R., et al. (2020), 'Renewable energy and geopolitics: A review', *Science Direct Renewable and Sustainable Energy Reviews*, Vol 122. At: [Renewable energy and geopolitics: A review - ScienceDirect](#).

3. Increase the opportunity cost of engaging in violence.
4. Reduce horizontal inequalities and the grievances they cause between groups.
5. Reduce competition over natural resources.

More specifically, renewable energy conflict and peace pathways would:

- Provide opportunities to redress resource conflicts, principally by:
  - Reducing competition over scarce resources.

Energy can itself be a scarce resource, and non-access to it can worsen other kinds of scarcity. It can directly increase the supply and quality of water or lower the cost of food production; it can equally enable education and production of goods and services, etc.

- Enabling conflict sensitive forms of actions to redress inequalities of access or benefit.

- Provide opportunities to address land use conflicts.
- Have positive impacts on local benefit-sharing and democratic governance.<sup>47</sup>

## Energy and peacebuilding actions

More generalisable actions in the context of energy production could involve the following:

- Bottom-up community-based energy projects co-developed in partnership between citizens, civil society, government and hybrid authorities, and private sector actors, can provide opportunities to strengthen social cohesion.
- There is evidence to suggest such projects are more likely to be accepted by the public than top-down projects developed by large companies.<sup>48</sup>
- Decentralized authority and deliberation over the design and use of resources can increase self-reliance, local approval, and planning, as well as local accountability and responsibility for the social and environmental impacts of electricity use. This can improve community engagement and ownership of energy resources.

- Community-scale projects could support local economic planning in key areas of investment connected to energy infrastructure. For instance, decentralised solar projects can desalinate water, power refrigeration, and pump water for community agriculture, consumption, and food processing, etc.
- Decentralised energy and locally embedded projects have the potential to create local jobs; indeed, they create more jobs than large-scale projects that tend to import labour. This can lower costs and create opportunities for residents to co-own and co-manage the development of energy assets.

Examples of projects that have created conflict and violence should also be noted. This has occurred in some contested crossborder regions where an energy supply is available. A prominent case involved Western Sahara and Morocco. Morocco obtains 18% of its installed wind capacity and 15% of its solar power from territories that are deemed to be non-self-governing.<sup>49</sup> Growing energy depen-

47 Edwards, I. (2018), 'The role of decentralized renewable energy in peacebuilding', Quaker UN Office. At: [Inputs from Quaker United Nations Office\\_Role.pdf \(unfccc.int\)](#).

48 Rogers, J. et al. (2008), 'Public perceptions of opportunities for community-based renewable energy projects', Science Direct Energy Policy, Vol. 36, Issue 11. At: [Public perceptions of opportunities for community-based renewable energy projects - ScienceDirect](#).

49 Allan, J. (2021), 'Renewable energy is fueling a forgotten conflict in Africa's last colony', The Conversation. At: <https://theconversation.com/renewable-energy-is-fuelling-a-forgotten-conflict-in-africas-last-colony-170995>.

dence entrenches incentives to sustain territorial conflict. Where cross border or territorial disputes spark conflict, the presence of contested renewable

resources can nourish grievances and entrench corrupt and conflict-driven political economies.

### The close link between conflict insensitivity and project risk – two examples

In the context of peace bonds, a particularly important feature of renewable energy is the close link between project risks and local peace and conflict dynamics. Failure to involve communities, particularly during the phases of project establishment and development, can cause loss of trust and eventually lead communities to reject projects, putting them at risk.

Two case studies can be cited: (1) a green mini-grid established in South Africa's Eastern Cape; and (2) a more recent 55MW solar plant in Garissa, Kenya. Both cases demonstrate the value of PEMs. In the first case, a green mini-grid was installed between 2002 and 2003 in the village of Lucingweni. The grid was vandalised soon after installation and never reached full capacity. The project did not fulfil its potential for a number of peace-related reasons. Local authorities were not sufficiently included; local people were not trained to maintain the system; it was never agreed or decided who would operate the grid, or set and monitor tariff and usage levels.<sup>50</sup>

The second case, located in a rural area of Garissa County, is the first Chinese-backed solar venture in East Africa. This project learned from previous failures; it involved local people and adequately compensated local pastoralist communities by developing livelihood projects, building schools and improving roads.<sup>51</sup> However, promises to create jobs and provide electricity were not subsequently fulfilled. As a result, community attitudes shifted during the construction phase and, when the company built an insensitive boundary wall, local communities vandalised the project. Project construction halted until communities could be adequately consulted. Other projects have also caused discontent leading to their abandonment (for example, the 60MW Kinangop Wind Farm Project in 2016). This recent case underlines how much PEMs that mitigate project risk must focus on process and relationships.

## Links between energy access and peace

Fragility and gaps in access to energy access overlap. Access to renewable, reliable, and affordable energy is a key enabler of sustainable social and economic development. However, energy inequality is widespread and gaps appear to be especially wide and persistent in fragile and conflict affected situations. (See Figure 7).

The latest data show that 789 million people across the world did not have access to electricity in 2018, of which one-third lived in fragile and conflict affected countries. In the same year, 2.8 billion people lacked access to clean cooking facilities. People may wholly lack access to energy or may be deprived because it is unreliable or unaffordable; fragility causes or compounds these problems. Over half of the twenty least-electrified countries between 2010 and 2018 were on the World Bank's

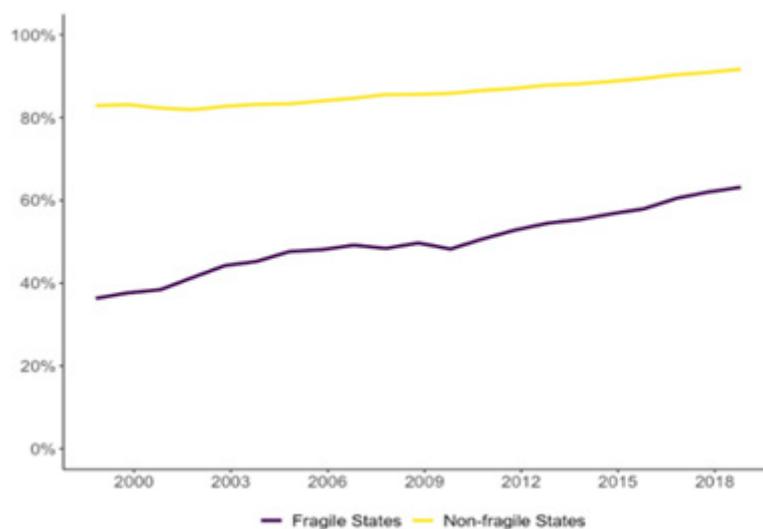
50 Edwards, I. (2018), 'The role of decentralized renewable energy in peacebuilding', Quaker UN Office. At: [Inputs from Quaker United Nations Office\\_Role.pdf \(unfccc.int\)](#).

51 Bhamidipati, Hansen, et al. (2022, forthcoming), 'Green Curses: Renewable energy and conflict in Africa, Background report for the Human Development Report 2022 and the Special Report on Human Security'.

Harmonized List of Fragile Situations.<sup>52</sup> This underlines that how investments are made and how

energy is supplied will have important effects on peace and the risk environment.

**Figure 7. Average access to electricity in fragile States relative to non-fragile States (% of total population, USD )**



## Financing need

Africa has very significant energy financing needs. To lift energy access on the continent from the current level of approximately 57% to a level approaching that in developed States will require many years of sustained investment. According to the African Development Bank (AfDB), generation of renewable capacity by 2030 will require annual investment of EUR 39-62bn (USD 44-69bn).<sup>53</sup> Globally, a report by the International Energy Association (IEA), the International Renewable Energy Association (IRENA), the World Health Organization

(WHO) and the World Bank found that clean energy investments in emerging and developing economies need to increase from USD 150bn in 2020 to over USD 1 trillion by 2030 to achieve net-zero by 2050.<sup>54</sup> If this goal were reached it would be equivalent to almost all current Green Bond issuance; however, according to the IEA, to reach this level developing countries will need to significantly improve their domestic ecosystems for investing in clean energy and also remove risks and barriers to foreign capital.

52 See, United States Agency for International Development (USAID, 2018), 'The intersection of global fragility and climate risks', at: [Final\\_Fragility\\_and\\_Climate\\_Global\\_TechnicalReport\\_September\\_2018 \(climatelinks.org\)](#). See also USAID (2018), 'Fragility and climate risks in Nigeria', at: [Final\\_USAID\\_Fragility\\_and\\_Climate\\_Nigeria\\_brief\\_September\\_2018](#); and World Bank (2013), 'Toward a Sustainable Energy Future for All: Directions for World Bank Group's Energy Sector', at: [World Bank Document](#). See IEA, IRENA, WHO, World Bank (2020), 'Tracking SDG 7 2020: The Energy Progress Report', at: [Tracking SDG 7: The Energy Progress Report \(2020\) \(irena.org\)](#). See also World Bank, 'FY20 List of Fragile and Conflict-affected Situations', at: [FCSFY20.pdf \(worldbank.org\)](#).

53 African Business (2020), 'Financing Africa's energy transition'. At: <https://african.business/2020/08/energy-resources/financing-africas-energy-transition/>.

54 IEA (2021), 'Financing Clean Energy Transitions in Emerging and Developing Economies'. At: [Financing clean energy transitions in emerging and developing economies - Analysis - IEA](#).

As the IEA has underlined: “The cost and availability of capital for investing in clean energy transitions is a crucial aspect of the ability of EMDEs [emerging market and developing economies] to meet sustainable development goals. Although EMDEs account for around 40% of energy investments and emissions reductions under IEA climate-driven scenarios, they currently hold only 10% of global financial wealth.”<sup>55</sup> The risk premium in many

of these countries inhibits investment. According to the same IEA report: “Economy-wide nominal financing costs in EMDEs range some 700 to 1500 basis points - up to seven times - above values for the United States and Europe, with higher levels in riskier segments.” It is precisely these financing costs that can be reduced by PEMs in peace bonds and it is where important additionality can be created.

## Commercial scope

Multiple commercial avenues have peace potential for renewable energy investments. They include decarbonisation, decentralisation and digitalisation.<sup>56</sup> Economically, a significant drop in the cost of clean technologies and the local practical potential of solar photovoltaics (PV) have made renewable energy an increasingly viable option in fragile settings. Clean energy investment can also help to address climate change, improve the socioeconomic inclusion of marginalised groups, and support State-building by increasing legitimacy, resilience,

and commitment to peace. These elements confirm that investments in renewable, reliable, and affordable energy have the potential to help countries escape conflict traps and fragility.

As shown in table 4, the price of solar PV technology has fallen furthest: its production cost was the most expensive and is now the cheapest per megawatt hour. On average it has become the cheapest source of energy.

**Table 4. Renewable and non-renewable energy generation cost per MW/h, 2009 - 2020**

Energy source	Type	Cost in 2009 (USD/MWh)	Cost in 2020 (USD/MWh)	% change
Solar photovoltaic	Renewable	359	37	-870%
Onshore wind	Renewable	135	40	-238%
Gas - peaker plants	Non-renewable	275	175	-57%
Gas - combined cycle plants	Non-renewable	83	59	-41%
Solar thermal tower	Renewable	168	141	-19%
Coal	Non-renewable	111	112	+1%
Geothermal	Renewable	76	80	+5%
Nuclear	Non-renewable	123	163	+25%

Source: Lazard Levelised Cost of Energy Analysis v14.0. At: [Lazard's levelized cost of energy analysis-version 14.0 - Lazard.com \(readkong.com\)](https://www.lazard.com/levelized-cost-of-energy-analysis-version-14.0/).

<sup>55</sup> Ibid., p. 44.

<sup>56</sup> Ibid.

## Why renewables are a priority investment in fragile States

- State fragility is strongly linked to climate hazards and poor energy access. Conflict, poverty, and poor governance increase countries' vulnerability to climate change threats, while access to electricity – especially renewable – is lowest in fragile settings.<sup>57</sup>
- Four key factors make it desirable and relevant to scale up renewable energy investment in fragile and conflict affected States: cost and practicality; increased and secure energy access; economic resilience; and inclusion and empowerment.
- A massive fall in renewable energy costs means that, relative to fossil fuels, renewable systems are increasingly affordable and competitive options. Solar energy has great potential in fragile settings, because it operates well in different geographies and can be scaled up incrementally.
- Renewable energy can also be decentralised. Decentralisation is important in fragile, high-risk contexts because it increases their resilience. It reduces reliance on large generators (often targeted in conflicts), has low capital density (cutting financial risk), and can democratise power systems.
- Women in fragile economies are disproportionately affected by the harmful impacts of fossil fuels. Home-based solar systems offer them economic empowerment and social inclusion.<sup>58</sup>

---

<sup>57</sup> Ibid.

<sup>58</sup> Sacchetto, C., Stern, N., Taylor, C. (2020), 'Priorities for renewable energy investment in fragile states', International Growth Center. At: [Sacchetto-Stern-Taylor-2020-Policy-Brief.pdf \(theigc.org\)](#).

**Table 5. Renewable and decentralised energy and peacebuilding actions**

Type of renewable energy action	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
Decentralised solar or wind and energy storage.	Direct revenues via a power purchase agreement (PPA) with a sovereign or a community.	20% (IRR <sup>59</sup> )	Revenue approx. USD 100 per MW/hour.	30 years. Payback in circa 7 years.	Between USD 20M – 500M.	Improves social capital both horizontally (inter- and intra-community) and vertically (community-State). It is especially important for service provision and bolsters the social contract between States with weak governance and their populations. Strengthens local conflict management and governance capacities, including over contested natural resources.	Increases the opportunity cost of engaging in violence by promoting sharing mechanisms for key energy infrastructure. Reduces horizontal inequalities and the grievances they generate between groups. Generally reduces competition over natural resources by replacing other forms of technology. For instance, it reduces the need of households to burn wood and bio-mass, thereby reducing demand for wood and conflicts over land from which wood is sourced.

59 IRR: internal rate of return.

## Water resources and water, sanitation and hygiene (WASH)

Water resources and WASH refer to what are often considered to be two distinct fields of development activity. In settings affected by conflict, the development of water resources, or water infrastructure and associated water governance, has significant implications for peace, both locally and internationally. The way water resources are developed, made available and governed can cause peace or conflict, and conversely conflict dynamics can have a negative or positive impact on water resources.

### Peace impact potential and pathways

WASH needs and water dependence are particularly acute in fragile and conflict affected settings. UNICEF has found that unsafe water is a major cause of indirect death in conflict settings. On average, children under the age of 15 who live in conflict areas are nearly three times more likely to die from diseases linked to unsafe water and sanitation than from acts of violence. For younger children, the situation is worse: children under five years old are more than 20 times more likely to die from diseases linked to unsafe water and sanitation than from violence. Further, those who live in extremely fragile contexts are three times more likely to defecate in the open, four times more likely to lack basic sanitation services, and eight times more likely to lack access to potable water.<sup>60</sup> In conflicts and war, deliberate and indiscriminate attacks may destroy water infrastructure, kill and injure water and sanitation personnel, and sever the power that keeps water systems running. Recently, attacks of this sort took place in both Yemen and Syria.<sup>61</sup> In such cases, lack of access to water may be instrumentalised as a weapon and become connected to broader patterns of grievance. These need to be understood, particularly by development actors, when reconstruction starts. WASH needs and deficits are acute in areas affected by conflict, and failure to meet them can undermine efforts to rebuild peace.

WASH refers to an array of development actions, often more local in scope, that provide access to clean water, sanitation, and support practises of good hygiene (notably hand washing, and menstrual health and hygiene). How WASH interventions are implemented can have a significant impact on conflict and peace in local communities. The real and perceived beneficiaries of WASH are local and proximate to interventions.

Moreover, gender is embedded in both WASH and conflict issues. Girls and women are disproportionately affected by poor WASH at many levels. They tend to haul water, which reduces the time they have for productive activities, leisure, and education. Lack of WASH facilities often prevents girls from participating fully in schools. Poor access to clean water and lack of toilet facilities promotes urinary tract infections (arising from delayed urination or reduced water intake) and other diseases. Women and girls experience loss of dignity, and are at risk of sexual assault, both in times of stability and during crises.<sup>62</sup>

With respect to larger water projects and development, it has long been recognised that water and transboundary watercourses are important factors in peace and conflict. Water, hydro diplomacy and water co-operation are well established areas of practice, and concepts, approaches and tools have been applied in many contexts to address the links between water and peace. In this area, the peace promotion potential of shared and transboundary watercourses is particularly significant.

The UN estimates that approximately 40% of the world's population live in river and lake basins adjoined by two or more countries, and that 90% live in countries that share basins. Globally, 263 trans-

60 UNICEF (2019), 'Fast Facts: WASH in conflict. At: <https://www.unicef.org/stories/fast-facts-water-sanitation-hygiene-conflict>.

61 Suter, M. (2018), 'An update on Yemen's water crisis and the weaponization of water', Atlantic Council. At: <https://www.atlanticcouncil.org/blogs/menasource/an-update-on-yemen-s-water-crisis-and-the-weaponization-of-water/>.

62 Unicef (2016), 'Strategy for Water, Sanitation and Hygiene 2016-2030', p. 2. At: [UNICEF, 'Strategy -for Water, Sanitation and Hygiene -WASH-2016-2030.pdf'](#).

boundary river basins and approximately 300 transboundary aquifers account for 60% of the world's freshwater resources, serving 2 billion people with groundwater.<sup>63</sup> Climate change, significant increases in population, and economic growth put transboundary water resources under pressure and water stress is a significant factor in many conflicts. In short, an important proportion of the world's population is at risk from potential inter-State disputes related to transboundary watercourses and water resources.

UN Water is the UN inter-agency coordination mechanism for all matters relating to fresh water. Between 1948 and 2015, it registered 37 incidents of acute conflict over water, while in the same period approximately 295 international water agreements were negotiated and signed.<sup>64</sup> Even so, around two-thirds of the world's transboundary rivers do not have a co-operative management framework and as of 2020 only 24 countries had reported that co-operation arrangements covered all their transboundary basins.<sup>65</sup> Lack of co-operation has significant economic, social and environmental consequences. According to the Economist Intelligence Unit (EIU) Blue Peace Index, "new dams that lack joint planning redirect water and destabilise ecological systems. Upstream pollution compromises water quality for downstream users. Flooding is worsened when warnings about impending risks are not shared due to poor communication between countries."<sup>66</sup> It should be noted that dams often have significant social and environmental costs and questionable cost-effectiveness ratios, taking account of the huge investment they require.<sup>67</sup> Large hydropower investments also frequently exceed their budgets and may saddle governments with unsustainable debt. Over the medium and long term, dams may also cause harm to communities who live

near and depend on local river basins.<sup>68</sup> These issues highlight the relevance of peace bond principles to large water project investments. They can ensure that such projects take appropriate steps to consult and involve communities, and manage social impacts responsibly, thereby materially reducing the risk of conflict.

Recent research has shown the positive impact of water co-operation on peace. Analysis by Ide and Detges (2018) revealed that positive water-related interactions between States in the same river basin are consistently associated with a subsequent improvement in their diplomatic relations. Case studies, for example of co-operation between Honduras and El Salvador over the Lempa River Basin, have confirmed that water diplomacy can build confidence between conflicting States.<sup>69</sup> Other important case studies have shown that, while water co-operation may facilitate inter-State peace by increasing cross-border water flow, it may simultaneously harm local communities who lose out when water is reallocated to purposes that are considered more efficient.<sup>70</sup> Such effects can generate local grievances that may transmute into larger conflicts, highlighting the complexity and strategic importance of transboundary water issues, and the importance of adopting conflict sensitive and peace promoting approaches.

Finally, water access issues play a prominent role in many situations of conflict in sub-Saharan Africa, where they combine with land and herding disputes, competition for livelihoods, migration patterns and population growth, and of course the impacts of climate change.

---

63 UN Water (2021), 'Transboundary Waters'. At: <https://www.unwater.org/water-facts/transboundary-waters/>.

64 Ibid.

65 UN Water (2021), 'Summary Progress Update 2021: SDG 6 - water and sanitation for all'. At: <https://www.unwater.org/publications/summary-progress-update-2021-sdg-6-water-and-sanitation-for-all/>.

66 Economist Intelligence Unit, Blue Peace Index. At: [Blue Peace Index | Economist Intelligence Unit \(eiu.com\)](https://www.eiu.com/en/blue-peace-index/).

67 Ansfar, A. et al. (2014), 'Should we build more large dams? The actual costs of hydropower megaproject development', Science Direct Energy Policy. At: <https://www.sciencedirect.com/science/article/abs/pii/S0301421513010926>.

68 Leslie, J. (2018), 'After a Long Boom, an Uncertain Future for Big Dam Projects', Yale Environment. At: <https://e360.yale.edu/features/after-a-long-boom-an-uncertain-future-for-big-dam-projects>.

69 Ide, T., Detges, A. (2018), 'International Water Cooperation and Environmental Peacemaking', *Global Environmental Politics*, 18 (4): 63–84. At: [International Water Cooperation and Environmental Peacemaking | Global Environmental Politics | MIT Press](https://www.mitpress.mit.edu/journals/10.1215/15254120-15254120).

70 See the case of Jonglei Canal development between Sudan and Egypt.

## Financing need

The resources required to address water and WASH needs are immense. The OECD has estimated that annual investment in water and sanitation infrastructure will need to reach some USD 0.9–1.5 trillion by 2030, roughly one fifth of all investment in infrastructure.<sup>71</sup> The resources required to achieve

universal access to safely-managed WASH services by 2030 will require a fourfold increase in current global rates of progress by 2020, rising to a tenfold increase in least developed countries, and a 23-fold increase in fragile and conflict affected contexts.<sup>72</sup>

## Commercial scope

Research into blended finance has shown that the WASH sector offers significant commercial opportunities for investment. Water resource development, watercourse development and maintenance, and dam construction with transboundary implications present significant commercial as well as peace opportunities. A lot of green finance has gone into ‘blue projects’. Underlining the size of this market, the Climate Bonds Initiative estimated that, of USD 540bn of green bonds issued, approximately USD 87bn has been committed to blue projects, such as dam infrastructure development.<sup>73</sup> Historically, private finance has concentrated on hydraulic infrastructure or dam development. In general, environmental protection and water co-operation institutions lack the resources that are needed. One of the benefits of using peace bonds is that PEMs will help investors and projects in fragile zones to address critical co-operation issues responsibly.

Commercial peace bonds and blended finance peace bonds that fund projects involving water management will need to work out how to structure such projects and allocate cash flows to water management and transboundary water management. A High-Level Workshop on Financing Transboundary Basin Development, hosted in 2018 by the Unit-

ed Nations Economic Commission for Europe (UNECE), comprehensively analysed the challenges of financing transboundary water co-operation, and highlighted that opportunities for broader co-operation had been missed.<sup>74</sup> Large water infrastructure developments that are not energy- or hydro-related could be funded by government peace bonds, because such projects usually increase access to water as a basic public good; private capital flows and subsequent revenues are largely indirect.

With respect to smaller WASH investments, in 2019 the OECD identified three key WASH subsectors that have significant potential for blended private investment: (1) water and sanitation utilities; (2) off-grid sanitation; and (3) multi-purpose water infrastructure (MPWI), including emerging landscape-based approaches.<sup>75</sup> Each of these subsectors has a cash flow structure that matches the profile of potential blended finance peace bonds that aim to support peace responsive projects; the application of peace bond principles could also improve social cohesion and ‘lower case’ peace outcomes. A non-exhaustive review of multiple sources, including the SDG Investor Platform, identified the following commercial investment areas relating to water and WASH.

---

71 UNESCO (2021), World Water Assessment Programme. At: [World Water Assessment Programme \(unesco.org\)](https://www.unesco.org/water).

72 UNICEF (2021), ‘Progress on household drinking water, sanitation and hygiene, 2000-2020’, p. 22. At: <https://data.unicef.org/resources/progress-on-household-drinking-water-sanitation-and-hygiene-2000-2020/>.

73 Economist Intelligence Unit, Blue Peace Index. At: [Blue Peace Index | Economist Intelligence Unit \(eiu.com\)](https://www.eiu.com/blue-peace-index/).

74 UNECE (2018), ‘Background Document: High-Level Workshop on Financing Transboundary Basin Development’. At: [https://unece.org/DAM/env/documents/2018/WAT/10Oct\\_9\\_HLWS\\_Astana/Final\\_Background\\_Document\\_Workshop\\_on\\_FinancingTBCoop\\_15\\_11\\_2018.pdf](https://unece.org/DAM/env/documents/2018/WAT/10Oct_9_HLWS_Astana/Final_Background_Document_Workshop_on_FinancingTBCoop_15_11_2018.pdf).

75 OECD (2019), ‘Making Blended Finance Work for Water and Sanitation - Unlocking Commercial Finance for SDG 6’. At: <https://www.oecd.org/environment/resources/Making-Blended-Finance-Work-for-Water-and-Sanitation-Policy-Highlights.pdf>.

## **1. Large-scale water infrastructure**

- a. Dam construction for hydropower generation or irrigation.
- b. Navigation infrastructure: ports, landing sites, navigability improvement measures.

## **2. Water and sanitation utilities**

- a. Water treatment.
- b. Wastewater treatment.
- c. Small-scale off-grid sanitation.
- d. Multipurpose water infrastructure (MPWI) projects and landscape-based approach-

es. These are integrated projects in a given spatial area that deliver many water-related benefits to several sectors (for example to agriculture, energy production, fisheries, recreation and tourism). Landscape-based approaches are being developed to address SDG-related challenges.

## **3. Solar-powered desalination or water pumping**

- a. Off-grid energy production and storage paired with low power desalination or ground water pumping.

Table 6. Water resources, WASH and peacebuilding actions<sup>76</sup>

Type of water resource or WASH commercial intervention	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
Large water infrastructure for energy or irrigation.	Largely indirect revenues from sovereign entities.		Private investment in the construction, operation and management of large hydro, energy or irrigation infrastructure.	Long term, 10-20 years.	Very large.	<p>Redress water grabbing and transboundary water conflicts between States and communities.</p> <p>Reduce water conflicts by increasing water supply.</p> <p>Cultivate inter-dependence and Increase inter-State co-operation and confidence building.</p> <p>Provide opportunities for benefit sharing and identify shared interests in new potential industries.</p>	<p>Improve water governance, and community engagement leading to enhanced trust and confidence in the legitimacy and responsiveness of State and local authorities.</p> <p>Improve water and sanitation governance and increase equitable public access.</p> <p>Include relevant populations in the management and delivery of water services; reduce real and perceived marginalisation of excluded groups.</p>

<sup>76</sup> The data in this table are taken from UNDP, SDG Investor Platform, 'Market Intelligence'. At: <https://sdginvestorplatform.undp.org/market-intelligence>.

Type of water resource or WASH commercial intervention	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
<p>Water and sanitation utilities (including post-conflict reconstruction); waste water and water treatment; small scale off-grid sanitation and multi-purpose water infrastructure.</p>	<p>Direct revenues from providing and managing utilities.</p>	<p>&gt; 25% (IRR)</p>	<p>Private investment in construction, operation and/or management of small- and medium-sized wastewater plants; provision of services associated with industries and potentially other institutions.</p>	<p>Short term, 0-5 years.</p>	<p>Small to large.</p>	<p>In post-conflict phase, restoring basic infrastructure (such as water and sanitation) may be an important expectation or component of a peace agreement; restoration of State presence and service delivery.</p>	<p>Improve water governance; community engagement leading to enhanced trust and confidence in the legitimacy and responsiveness of State and local authorities</p> <p>Increase opportunities for positive interaction at community level between different groups.</p> <p>Redress related gender inequalities and thereby influence broader conflict dynamics.</p> <p>Increase equitable access to WASH services (target WASH inequalities).</p> <p>Instal community-based planning mechanisms that strengthen horizontal social cohesion and intra- and inter-group cohesion through WASH mechanisms.</p> <p>Increase the community's capacity to manage resources.</p>

Type of water resource or WASH commercial intervention	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
Solar-powered energy; desalination; water pumping.	Direct revenues from provision of water.	15-20% (IRR).	Private investment in construction, operation and/or management of water desalination	Medium term: 5-10 years.	Medium to large.	Reduce water conflicts by increasing water supply.	<p>Improve water governance and community engagement leading to enhanced trust and confidence in the legitimacy and responsiveness of State and local authorities</p> <p>Increase opportunities for positive interaction at community level between different groups.</p> <p>Increase the community's capacity to manage resources.</p>

## Agriculture and Food Security

Agriculture is a priority for a majority of fragile and conflict affected countries. Many, like Ethiopia, the DRC and Mozambique, have undertaken to enlarge the sector in their national development plans. Food security and land use, both relevant to agriculture, have featured prominently in conflicts. In Africa, the majority of internal conflicts involve land disputes,<sup>77</sup> causing some of the most paradoxical cases of severe food insecurity. The most extreme is South Sudan,<sup>78</sup> which possesses some of the world's most fertile land but whose agricultural potential remains untapped due to persistent conflict.

Agriculture is invariably linked to peace and conflict because it typically employs between one third and two-thirds of the workforce in low and low-

er-middle income countries.<sup>79</sup> In fragile and conflict affected settings, on average half the workforce is employed in agriculture<sup>80</sup> and 57% of the population (532 million people) live in rural contexts.<sup>81</sup>

Agricultural development includes a diverse range of projects and activities designed to improve agricultural productivity and rural livelihoods through interventions that aim, for example, to irrigate land, finance small and medium sized enterprises (SMEs), add value at source, or strengthen climate resilience. Due to their proximity to rural populations and impact on livelihoods, food security, and land use, the approach and location of agricultural development projects can have significant implications for peace and conflict.

### Potential peace impacts and pathways

Three trends strongly suggest that agriculture will provide an important pathway to peace enhancement.

- 1. Most people in conflict affected and fragile contexts live in rural areas and depend on employment in agriculture.**<sup>82</sup> Much conflict occurs in agricultural and rural contexts, which are often fragile.
- 2. Management of agricultural supply chains is closely tied to livelihoods and food security, and can be a major driver of conflict.**<sup>83</sup> There is often a two-way relationship between agri-

cultural supply chain problems and conflict. Supply chain problems make food scarce, lower incomes, and inflate staple food prices, all elements that can provoke conflict;<sup>84</sup> and conflicts can cause agricultural market to fail and create abusive war economies whose effects persist long after conflicts formally end. Import-dependent countries are particularly vulnerable to movements in international commodity prices, which can be responsible for civil distress and conflict, as with recent rice price shocks in Liberia.

77 Le Monde Diplomatique (May 2016), 'Peace and food security supplement by FAO', p. 3. At: [le monde diplo\\_EN\\_WEB.pdf \(fao.org\)](#). The FAO has noted that land played "a significant role" in 27 of 30 conflicts in Africa since 2000.

78 World Bank Data (2019), 'Prevalence of severe food insecurity in the population (%)'. At: [https://data.worldbank.org/indicator/SN.ITK.SVFI.ZS?most\\_recent\\_value\\_desc=true](https://data.worldbank.org/indicator/SN.ITK.SVFI.ZS?most_recent_value_desc=true).

79 World Bank Data (2021), 'Employment in agriculture (% of total employment) (modelled ILO estimate) - Lower middle income, low income, fragile and conflict affected situations'. At: [https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=XN-XM-F1&name\\_desc=false](https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=XN-XM-F1&name_desc=false).

80 Ibid.

81 World Bank Data (2018), 'Rural Population (% of total population) - Fragile and conflict affected situations'. At: [https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=F1&name\\_desc=false](https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=F1&name_desc=false).

82 Ibid.

83 Brück, T., d'Errico, M. (2019), 'Food security and violent conflict: Introduction to the special issue', World Development, p. 168. See section 2, which surveys research on the interactions of volatility in food availability and price, climate fluctuations, and conflict and violence in urban and rural areas. At: [Food security and violent conflict: Introduction to the special issue \(gre.ac.uk\)](#).

84 Ibid., p. 168.

In the last five years, conflicts in Yemen, Syria, Ethiopia, and Burkina Faso have demonstrated the link between food and conflict. In its 2021 report on the State of Food Security and Nutrition in the World, the Food and Agriculture Organization (FAO) found that levels of undernourishment were most influenced by conflict when paired with other drivers of undernourishment, such as climate extremes and economic downturns. A sudden disruption in the delivery of essential nutritional services occurred in fragile and conflict affected countries during the Covid-19 crisis.<sup>85</sup>

**3. Land use, intimately tied to agriculture, has featured in most African internal conflicts in the last two decades.**<sup>86</sup> This can be linked to several variables, notably the coexistence of traditional and government land governance regimes on the same territories.

The connection between fragility, conflict and agriculture is underpinned by four major types of challenge that drive conflict.

**1. A scarcity of agricultural inputs and products impacts livelihoods.** Losses in agricultural production and post-harvest losses due to ineffective storage or processing lead to conflict or competition<sup>87</sup> over such issues as:

- a. Access to water.
- b. Access to food.
- c. Availability of and access to productive agricultural land.<sup>88</sup>

**2. Fragility and uncertainty of the agricultural supply chain.**<sup>53</sup>

- a. Fluctuations in crop yield.
- b. Fluctuations in prices for agricultural inputs and outputs, especially of cash crops.
- c. Difficulty or uncertainty in accessing agricultural areas due to conflict dynamics.
- d. Agricultural disease risk.
- e. Excess exposure to international commodity markets of staple food products such as wheat and rice.
- f. Climate change, rainfall uncertainty, and climate-related natural disasters.
- g. Remoteness. Producers may lack access to market information<sup>89</sup> and may rely on poor road infrastructure or middlemen to access national or international markets; small farmers may be exploited by middlemen or may not be able to participate in markets.<sup>90</sup>

**3. Governance challenges with respect to land, resource management, and State resources**

- a. Land handovers or rehabilitation after conflict, legal reform or other systemic change.
- b. Land status, access, and ownership, which are often subject to coexisting traditional and official governance structures.
- c. Access to water.
- d. Access to agricultural infrastructure.
- e. Access to State services.
- f. Climate management structures such as dams.

85 FAO (2021), 'State of Food Security and Nutrition in the World', pp. 35 and 61-63. At: <https://www.fao.org/state-of-food-security-nutrition/en/>.

86 Le Monde Diplomatique (May 2016), 'Peace and food security supplement by FAO', p. 3. At: [le monde diplo\\_EN\\_WEB.pdf \(fao.org\)](https://www.lemonde.fr/diplomatique/2016/05/01/peace-and-food-security-supplement-by-fao_4978183_0_0.html)

87 Holleman, C., et al (eds, 2017), 'Sowing the seeds of peace for food security. Disentangling the nexus between conflict, food security and peace', FAO, pp. 44-47 and 50-52. At: [Sowing the seeds of peace for food security: Disentangling the nexus between conflict, food security and peace \(fao.org\)](https://www.fao.org/state-of-food-security-nutrition/en/). This research was prepared as background for FAO (2017), 'The State of Food Security and Nutrition'. At: <https://www.fao.org/state-of-food-security-nutrition/en/>.

88 Berman, N. et al (2021), 'Fertile ground for conflict', *Journal of the European Economic Association*, Vol. 19, Issue 1, pp. 82-127. At: [Fertile Ground for Conflict | Journal of the European Economic Association | Oxford Academic \(oup.com\)](https://onlinelibrary.wiley.com/doi/10.1111/jeea.12500).

89 For technological attempts to increase market information and results for remote farmers, see N. Andriandralambo et al (2017), 'Providing market information to small farmers in Madagascar. Challenging ICTs suitability', *Journées de recherche en Sciences Sociales*, 11, pp. 13-14.

90 Jagwe, N. (2011), 'The impact of transaction costs on the participation of smallholder farmers and intermediaries in the banana markets of Burundi, Democratic Republic of Congo and Rwanda' (Doctoral dissertation, University of Pretoria). See also Bartkus, V. et al (2021), 'Big Fish in Thin Markets: Competing with the Middlemen to Increase Market Access in the Amazon', *National Bureau of Economic Research*, Working paper 29221, pp. 25-31. This study analyses a boat-sharing experiment to enable Amazon fishing communities to bypass middleman single-buyer monopolies. At: [Big Fish in Thin Markets: Competing with the Middlemen to Increase Market Access in the Amazon | NBER](https://www.nber.org/papers/w29221).

#### 4. Coping with growth

- a. Growing populations.
- b. Youth unemployment.
- c. Rapid and potentially disruptive rural to urban migration.
- d. The demand and need for development.

This non-exhaustive list illustrates how complex and diverse are the array of variables that link agriculture to conflict. Some of these challenges can be addressed by peace responsive agricultural development and peacebuilding projects. Research by Interpeace and FAO has identified five principal routes through which agricultural development projects can enhance and sustain peace.<sup>91</sup>

1. Increase social capital at community level and community-State level.
2. Strengthen local conflict management capacities.
3. Increase the opportunity cost of engaging in violence by improving livelihoods.
4. Reduce horizontal inequalities.

#### 5. Reduce competition for natural resources.

Some of FAO's work has already shown the potential for peace responsive agricultural programming. For instance, a programme in Colombia aimed to improve host-migrant relations while promoting learning and increasing food production. An even more compelling example of FAO's work was the success of its flagship Dimitra clubs, which use a community-based approach to voice local needs and mobilize local business capacities through inclusive dialogue. Dimitra clubs have given women a voice and catalysed the economic potential of jointly-owned community initiatives.

Certain donor agencies, including the Agence Française de Développement (AFD), have also promoted programmes across the nexus of agriculture and peacebuilding, notably to promote community stabilisation and resettlement programmes, and strengthen livelihoods, social cohesion, and resilience to conflict. A project funded by AFD's MIN-KA Peace and Resilience allocated EUR 10M for microbusinesses and agriculture in Iraq's Nineveh region, to help local people regain productive activity and restore economic links between their communities after land was degraded and populations displaced during the war against ISIS.<sup>92</sup>

### The climate-conflict nexus and agriculture

Climate change, demand for growth, and problems relating to agricultural value chains are three major system-level pressures that exacerbate fragility and conflict in agricultural contexts. Climate change presents an array of systemic challenges for agriculture and rural livelihoods. There are both slow onset and sudden onset risks. Slow onset risks (such as desertification and declining rainfall) are an escalating challenge to climate adaptation, and some occur at rates that exceed the capacity of citizens to adapt without harm to livelihoods and social cohesion. They are pressures that accumulate gradually. Sudden onset risks (natural disasters and extreme weather events) have also increased in incidence due to climate change, and can be considered known unknowns that can chronically and aggressively threaten resilience frameworks. Robust climate management and disaster management risk systems play a crucial role in cushioning the gradual weight of climate change and the sudden blows of extreme climate events.

91 United Nations (2020), 'Pathways to sustaining peace at the Food and Agriculture Organization of the United Nations (FAO)'. At: [https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/fao\\_-\\_peacebuilding\\_and\\_sustaining\\_peace\\_thematic\\_paper\\_1.pdf](https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/fao_-_peacebuilding_and_sustaining_peace_thematic_paper_1.pdf).

92 AFD (2018), 'Promoting Economic Revival for Microbusiness and Agriculture (Perma) in Nineveh Governorate'. At: <https://www.afd.fr/en/carte-des-projets/promoting-economic-revival-microbusiness-and-agriculture-perma-nineveh-governorate>.

Rising global temperatures have increased the incidence of destructive weather events, as well as water scarcity and desertification of formerly productive agricultural land. The pressure this puts on remaining resources can lead to local conflict and migration, which in turn may instigate further conflict. Climate-induced agriculture-related conflict dynamics have been observed in regions such as the Lake Chad basin, the Sahel, the Horn of Africa, and the Middle East.

Although responses to climate change cannot hope to address all its dimensions, climate adaptation and mitigation applications for agriculture (drought resistant crops, improved irrigation systems, agroforestry and reforestation projects) can reduce pressure on resources and make new resources available. Conversely, a survey of climate adaptation finance has shown that significantly fewer funds are allocated to climate adaptation in fragile and conflict affected countries. The Sahel and Horn of Africa regions received only 8% of public climate adaptation ODA finance between 2010 and 2018. In addition, donor requirements (for monitoring and to secure project approval) tend to be difficult to meet in unstable contexts, which creates a systemic barrier to financing climate adaptation in fragile settings, where it is greatly needed. At the same time, it is crucial to make sure that climate adaptation projects in fragile and conflict affected settings are conflict-sensitive and support peacebuilding agendas by actively mitigating climatic causes of conflict. It has been shown that 'conflict blind' interventions can exacerbate conflict by widening inequalities.

However, in fragile and conflict affected situations, the rural environment usually displays a wide array of interconnected conflict drivers that project-based interventions cannot easily address. To tackle persistent challenges to agricultural livelihoods and food output, broader market and systemic approaches are required.

Growing populations make it harder for agriculture to provide food, income, and secure livelihoods with the same or fewer resources. As rural lifestyles struggle to keep up with youth's aspirations for economic stability and dignified livelihoods, rural-urban migration accelerates, and urban governance structures find it difficult to provide services, maintain an adequate infrastructure, and mitigate conflicts associated with rural-urban migration. In response, efforts are made to modernise agriculture, notably by unlocking the potential of agricultural workers via social capital development, value addition at source, and promotion of agricultural SMEs.

Agricultural value chains cover the life cycle of a crop, from seed and agricultural input, through growth, processing, and storage, to transport and

sale to end users. Ownership of the value chain is linked to higher returns for agricultural workers, but structural fragility and monopolistic tendencies are frequent. For example, remoteness often means that farmers have limited access to national and international markets, which can expose them to middlemen who impose crippling costs. Monopolies can distort the value of agricultural inputs as well as outputs, the cost of seed and fertilizer as well as the cost of bringing goods to market. Monopolistic relationships are often violently enforced and may resemble a modern form of serfdom. The opposition of middlemen and their supporters to government attempts to create fairer conditions for small farmers is a further obstacle to reform.

In addition, livelihoods that depend on cash crops (coffee, nuts, cocoa, rice, bananas) are affected by fluctuations in process and global demand and supply. And, because their cultivation is rarely diversified, they are unusually vulnerable to agricultural disease, drought, flood, climate change and other climate risks. Farmers in remote, fragile, conflict affected areas with poor access to markets are particularly vulnerable.

## Financing need

Food and land use systems, including agriculture and forestry, play a central role in sub-Saharan Africa's economy, accounting for 70% of livelihoods and almost a quarter of regional GDP.<sup>93</sup> According to the Food and Land Use Coalition, new business opportunities in sustainable food and land use systems could deliver USD 320bn each year by

2030 across sub-Saharan Africa. These opportunities include USD 120bn in forest ecosystem services and restoration of degraded land, USD 100bn in increased agricultural yields, and USD 100bn derived from improving supply chain efficiency and capacity to add value.<sup>94</sup>

## Commercial scope

Research on blended finance and SDG investment has shown that agriculture undeniably has investment potential, having a large market and an extensive labour force. Agri-SMEs, farm productivity, and food storage and other value chain efficiencies have significant potential to achieve both commercial and peace benefits. The Convergence Database has estimated that just 15% of blended finance transactions relate to agriculture, and that agriculture transactions tend to be small. (Of 88 recorded transactions, 38 were valued at less than USD 25m.<sup>95</sup>) Typical blended finance transactions cover SMEs, smallholder farms, and farm productivity.

The main barriers to investment in agricultural projects that most effectively achieve peace impacts and the SDGs on hunger and poverty reduction are: poor economics associated with price and currency volatility; credit risk; and the difficulty of reaching disaggregated smallholders.<sup>96</sup> Common risks for agriculture investment include:

- Risks associated with high dependence on climatic and environmental conditions that investors cannot control.<sup>97</sup> These are increasing due to climate change, and particularly affect SMEs, co-operatives, and small farm projects. They can be mitigated by practices that increase climate resilience and farm productiv-

ity, strengthen climate management, and improve food storage infrastructure.

- Price shocks and volatility, as well as currency fluctuations. These risks particularly affect crops whose yield is highly volatile or whose price is set by international markets. Farm productivity projects and food storage can often help to stabilise supply. Improving local food storage capacity and adding value at source through local processing can help producers to extend the shelf life of their products and sell them when prices are not very low. Food storage of staple foods can assist governments to apply price controls sustainably.
- Lack of information about the capacity of operators. While this is a factor in other sectors, in agriculture this risk is common because rural clients are geographically fragmented and often remote, and it is unusually expensive to maintain an efficient client information infrastructure in the absence of digital systems. The FAO's Dimitra Clubs are a good example of a community engagement mechanism that facilitates collective action and has the potential to streamline communication with investors on the needs and capacities of local producers.

93 Okonjo-Iweala, N. (2021), 'Africa can play a leading role in the fight against climate change', Chapter 4 of 'Foresight Africa 2020'. At: <https://www.brookings.edu/research/africa-can-play-a-leading-role-in-the-fight-against-climate-change/>.

94 Ibid.

95 Smallholder and Agri-SME Finance and Investment Network (SAFIN, 2021), 'Deploying blended finance to mobilize investment at scale in food and agriculture'. At: <https://www.safinetwork.org/safinresources/Blended-finance-for-agriculture>.

96 Ibid.

97 Ibid.

→ Political and financial risks that are typical of many investments, including sovereign risk and risk on return. Peace bond projects might mitigate financial risks, through their structure and by assessing and addressing political risks during their inception phase.

Currency risks in agriculture run in both directions and depend largely on the agricultural product that the investment supports. Cash crop projects are affected by the price volatility of international markets, driven by international demand and supply. Producers cannot easily predict these, which creates the risk that they may be unable to cover their

expenses in local currency.<sup>98</sup> A recent OECD report on blended finance for agri-SMEs found that blended finance and risk mitigation instruments have the potential to remove market obstacles to investment in agriculture.<sup>99</sup>

The same OECD report stressed the benefits of allowing innovation and adjustments in the agri-SME space and the importance of consulting communities thoroughly to identify challenges in supply and demand. This indicates that peacebuilding practices of community consultation and participatory action research could benefit agri-SME projects by identifying and dismantling obstacles to growth.

### Agri-SMEs and peacebuilding opportunities

Agri-SMEs offer unique opportunities to invest in homegrown solutions to local problems and support local innovation in developing countries. To illustrate, countries in the Middle East have been exposed to price shocks because they rely significantly on imported foods (such as wheat). Food insecurity was a transversal theme during the Arab Spring protests. Recent food price spikes in Egypt, Syria and Lebanon demonstrated that regional food security remains exposed to international market and currency fluctuations. In an article on agricultural innovation in the MENA region, the Middle East Institute noted that local actors had intervened to meet food demand during the Covid-19 pandemic when government action failed to prevent disruptions to food supply chains, and asked whether local innovations could be scaled up to increase climate resilience and food production. In general, the region imports more than half the calories it consumes and suffers from chronic and worsening water scarcity, exacerbated by a growing population and high youth unemployment. Because start-up costs are high and farmers cannot obtain financing to reach efficiencies of scale, it is estimated to cost 25% more to grow food locally than to import it.

A review of sources, including the SDG Investor Platform, identified the following commercial investment areas for agriculture peace bonds:

- SMEs, co-operatives, and smallholder farmers
  - Cash crops.
  - Food crops.

- Farm productivity including climate resilience
  - Irrigation.
  - Climate resilient crops.
  - Agricultural equipment.
- Food storage and other value chain efficiencies
  - Cold food storage.
  - Agricultural processing facilities for preservation and adding value.

<sup>98</sup> Ibid.

<sup>99</sup> OECD (2021), 'Making Blended Finance Work for Agri-SMEs: Lessons learned from selected case studies'. At: [Making Blended Finance Work for Agri-SMEs: Lessons learned from selected case studies \(oecd.org\)](https://www.oecd.org/making-blended-finance-work-for-agri-smes-lessons-learned-from-selected-case-studies/).

**Table 7. Agriculture and peacebuilding actions<sup>100</sup>**

Type of Agriculture commercial intervention	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
AgriSMEs, co-operatives and smallholder farmers.	Direct revenues from sale of agricultural products.	15-25% (in IRR), depending partly on the type of crop supported.	<p>A portfolio investment model would provide capital expenditure (capex) to eligible SMEs, co-operatives, and smallholder farmers, for example for agricultural inputs and farm infrastructure.</p> <p>This would decrease the fixed transaction costs of investing in small farmers and SMEs. Support to basic food crops would improve food security, while low profit margins could be increased by adding value via food processing. Cash crops would improve incomes, subject to international price fluctuations, and offer high profit margins.</p>	Medium term (5-10 years).	Small to medium.	<p>Encourage inter-community co-operation in use of common resources, and establish joint businesses and co-operatives.</p> <p>Increase the opportunity cost of conflict by improving and connecting livelihoods and economic interests.</p> <p>In post-conflict contexts, projects could support community stabilisation and re-establish livelihoods for affected or displaced persons, accompanying processes such as community resettlement.</p>	<p>Improve income and livelihoods in target areas.</p> <p>Improve food security.</p> <p>Reduce dependence on middlemen by improving the access of remote farmers to national and international markets.</p> <p>Involve youth in innovative agricultural projects and reduce youth poverty and unemployment.</p>

<sup>100</sup> UNDP SDG Investor Platform, 'Market Intelligence'. At: <https://sdginvestorplatform.undp.org/market-intelligence>.

Type of Agriculture commercial intervention	Direct or indirect revenues	Indicative average return	General business model	Timeframe	Typical investment size	Typical potential direct peace impact pathways	Typical potential indirect peace impact pathways
Farm productivity including climate resilience.	<p>Direct revenues from sale of agricultural products and services.</p> <p>Indirect revenues from increasing the value of sales.</p>	> 25% (in IRR).	Private investment to improve agricultural equipment and agricultural inputs for farm infrastructure, including climate-resilient agricultural inputs and technologies.	Medium term (5-10 years).	Medium to large.	<p>Increase the opportunity cost of conflict by improving livelihoods.</p> <p>Reduce competition over productive agricultural land, and water and food resources, by improving agricultural performance based on existing resources.</p> <p>Reduce horizontal inequalities of access to productive land, agricultural resources and water.</p> <p>Communities that share the operation of food storage facilities can strengthen their capacity to co-operate and manage local conflict.</p> <p>Reduce destabilising effects of volatile food prices and availability.</p> <p>Reduce the weaponisation of food during conflict.</p>	<p>Improve the resilience of rural livelihoods to climate risks.</p> <p>Improve incomes and livelihoods in target areas.</p> <p>Improve food security.</p>
Food storage and other value chain efficiencies.	<p>Direct revenues from use of food storage facilities.</p> <p>Indirect tax revenues from the increased value of product sales.</p>	> 25% (in IRR).	Private investment in the construction and operation of food storage and food processing (value-adding) facilities	Short to medium term.	Medium to large.	<p>Communities that share the operation of food storage facilities can strengthen their capacity to co-operate and manage local conflict.</p> <p>Reduce destabilising effects of volatile food prices and availability.</p> <p>Reduce the weaponisation of food during conflict.</p>	<p>Improve food security and resilience to shocks in food availability.</p> <p>Improve incomes and livelihoods in target areas.</p>

---

## Potential early and long-term investors in peace bonds

Sovereign investors play an important role in corporate governance and often play a leading role in capital deployment. Having strong ESG requirements, SDG objectives, and increasingly outcome-based returns, sovereign investors have the ability to influence corporate governance while boosting corporate social responsibility. In this regard, responsible investors may choose to exclude entire sectors they consider unsustainable or unethical. Norway's Government Pension Fund Global (GPF) is a pioneer in promoting responsible conduct through investment. The Fund's investment policy lists companies and sectors in which it cannot invest, including companies that are implicated in human rights violations, that finance tobacco or weapons production, or contribute to environmental damage.

Increasingly, investors seek to supplement their investment procedures with ESG analysis. For instance, the New Zealand Superannuation Fund publishes a Responsible Investment Framework, whose investment profiles include 'social returns' alongside financial performance. Singapore's Temasek Holdings set up a USD 300M private equity fund called Tana Africa Capital to invest primarily in consumer goods and agricultural sectors across Africa. The fund focuses on agricultural production, processing of farm produce and, to a lesser extent, media, education and healthcare. Masdar, an alternative energy company owned by Mubadala Development Company, has two global funds dedicated to investing in renewable energy, including solar, hydroelectric and wind.

Structured appropriately and issued on commercial terms where possible, peace bonds would appeal to pension funds, sovereign wealth funds, family offices, insurance companies, high net worth individuals and retail investors. Some funds are looking for opportunities to invest in SDG 16 opportunities. They include the EUR 389bn Dutch civil service pension scheme ABP, and the EUR 187bn health-care scheme PFZW, which identified 13 investable SDGs (as well as two deemed not investable, and two deemed potentially investable).

It should be noted that corporates that are owned or guaranteed by governments, central banks, development banks, regions, provinces and local authorities issue bonds classed as 'Sovereigns, Supra-

### Scoping investors

In the course of this research into potential investors in peace bonds, Interpeace made a presentation to the Fiduciary Investors Symposium, convened by Conexsus Financial and [Top1000funds.com](https://www.top1000funds.com) at Harvard University in October 2019. It was attended by chief investment officers (CIOs) from the world's largest pension funds and sovereign wealth funds. The feedback from the CIOs present was positive. Many signed a letter supporting the concept of peace bonds which indicated that, if peace bonds were launched, their companies would look to invest. Large pension funds and sovereign wealth funds will typically only invest in large initiatives, so substantial peace bonds issues are likely to interest them most. Smaller issuances are likely to interest family offices and high net worth investors.

nationals and Agencies' (SSA). Investment banks typically use SSAs when they define the remit of an operation or desk that focuses on servicing a specific market. The issuer landscape is composed of international institutions that have different funding requirements, including development banks, infrastructure developers, export creditors, and shipping entities (to name a few). These institutions generally have in common mandates that include social or economic public policy initiatives. As a result of a perceived market failure, because suitable funding sources were found to be unavailable or unreliable, it became necessary to create an alternative source of secure funding, and supranational issuers emerged.

Agency bonds refer to a range of institutions that are highly diverse by their nature, shareholder ownership and guarantee structures. Examples of

agency issuers include public banks, bank workout groups,<sup>101</sup> infrastructure development bodies, export financiers, and social security facilities. The term ‘agency’ is therefore an appropriate one, covering institutions of all kinds that are mandated by sovereign States or sovereign-linked institutions to take forward economic or public policy-related ini-

tiatives. In terms of size, geographical coverage and orientation, supranational issuers vary. Their geographical reach and focus may be regional, continental or global.<sup>102</sup> Such mandated stakeholders are likely to be important in the early stages of peace bond issuance.

---

101 These are departments of commercial banks that handle what are known as special assets. Banks send troubled commercial loans to these departments to handle negotiation and management of forbearance agreements.

102 SSA bond markets are dominated by the U.S. (USD 22.4tn), China (USD 19.8tn), and Japan (USD 12.4tn). Between them they hold 62% of the global SSA market. See International Capital Market Association, Market Data, at [Market data » ICMA - International Capital Market Association \(icmagroup.org\)](#). See also ICMA (2021), ‘Regulatory Policy and Market Practice’, at: <https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/Secondary-Markets/bond-market-size>.

5. Feasibility case:  
Ghana-Burkina Faso  
renewable energy  
peace bond

# 5. Feasibility case: Ghana-Burkina Faso renewable energy peace bond

---

## Summary

- To understand how a peace bond would be structured, how PEMs would be integrated, and how PEMs would impact financial and project risk, a detailed feasibility case was developed based on a real proposed investment project.
- The proposed project is a 50MW solar plant that has the potential to impact one million people in Burkina Faso, based on current per capita energy consumption. This is equivalent to 5% of the population and 14% of the country's energy import needs.
- The solar plant would be constructed in Northern Ghana and would deliver energy to Burkina Faso through a power purchase agreement (PPA). The capital structure would split debt (70%) and equity (30%).
- The plant would generate 65MW of energy per annum at USD 130 per MW of energy, raising an annual revenue of USD 8.7M. The total investment cost is USD 35M (not including PEMs), with a payback period of six years.
- The feasibility study shows that an appropriate set of PEMs could directly address key conflict and peace risks as well as key project risks and could credibly reduce the risk premium on debt financing by 200 basis points (from 19% to 17%). This would improve the NPV of the project by USD 6M. The surplus value of PEMs and peace bond alignment is calculated to be USD 4.4M.
- PEMs linked to the project have six peace pathways or peace impact objectives. They would:
  1. Improve State-society relations and trust in Burkina Faso by improving service delivery of energy to under-served rural communities.
  2. Reduce natural resource competition in rural areas by earmarking energy use in the PPA to specific under-served rural communities. Potentially these benefits could complement the development objectives of peacebuilding and food security actors.
  3. Strengthen cross-border ties between Ghana and Burkina Faso and regional economic integration, further boosting the resilience of regional diplomacy and cross border co-operation.
  4. Improve horizontal (inter- and intra-community) and vertical (community-State) trust and cohesion in northern Ghana by introducing peace responsive land acquisition processes, connected participatory dialogue, and long-term benefit-sharing mechanisms (training, maintenance, local governance support, etc.).
  5. Increase resilience to violent conflict by sharing benefits, engaging communities, and earmarking conditional additional funds for intentional peace actions in co-agreed areas of need.
  6. Demonstrate the certainty of the operational environment to other investors, potentially stimulating future investment to meet other development needs, and further incentivising co-operation.

- The feasibility case was developed in partnership with financial advisers and companies that have a track record of developing renewable energy projects in Africa.
- The PEMs would also seek to embed an inten-

tional resilience strategy that will enable the investment, as well as communities, to withstand shocks and ultimately strengthen its capacity to adapt operations.

---

## Burkina Faso energy overview and background

Energy needs in Burkina Faso are significant. Only about 20% of the population has access to energy, and energy use is concentrated in urban areas. Approximately 60% of the urban population has access to energy compared to just 5% of the rural population. This is a particularly important statistic in the context of Burkina Faso's conflict dynamics. It is also relevant to underlying risk in the energy market because some 40% of the urban population work in formal or informal sectors of the economy that need and can pay for electricity.

Domestic energy production is insufficient to meet current local demand. Half the country's energy is purchased from neighbouring countries. Cote d'Ivoire supplies a significant proportion. Yet energy needs are growing at a 13% annualised rate, meaning that national energy costs are significant. According to USAID estimates, Burkina Faso has some of the most expensive energy in the West Africa region.<sup>103</sup> Its cost of production is between USD 0.22 and USD 0.25 per kWh.<sup>104</sup>

In 2016, the Government created the National Agency for Renewable Energy and Energy Efficiency (ANEREE) to promote the use, take-up and development of renewable energy in the country. ANEREE acts as a sub-unit of the Ministry of Energy to increase demand and supply of renewable energy, focusing on "facilitating greater access to energy in the country's rural areas via partnerships with NGOs and technical service providers".<sup>105</sup> The Government recognises that access to energy needs to

improve across the country, especially in rural areas, to help the country transition from subsistence agriculture to manufacturing and export-oriented industries that add more value.

Broadening energy access was a key priority of the 2016 National Plan for Economic and Social Development (the National Plan), which sought to increase the proportion of Burkina's population that has access to electricity from 20% to 80%.<sup>106</sup> The National Plan would double the number of customers to one million, and increase installed capacity to 1,000MW. Based on the latest numbers, this goal is far from being reached. Very little progress has been made since 2016. Conflict and instability have raised further Burkina's already elevated country risk premium and associated lending costs, severely undermining its ability to attract the foreign investment it requires. The Ministry of Energy has admitted that high borrowing costs are a major obstacle to achieving its energy goals.<sup>107</sup>

The Ministry of Energy and the national utility, Société Nationale d'Electricité du Burkina (SONABEL), recently set out a roadmap and national plan to boost private sector investment in Burkina Faso's energy market; it placed emphasis on renewable energy sources. The roadmap stated that the energy sector could potentially save annually between FCFA 800M and FCFA 1.8bn (USD 1.5M-3.3M) while simultaneously reducing its carbon emissions by using independent battery energy storage to generate 60-70MW (160-220MWh).<sup>108</sup>

---

103 USAID (2019), 'Burkina Faso: Power Africa Fact Sheet'. At: <https://www.usaid.gov/powerafrica/burkina-faso>.

104 UN Environment Programme (2015), 'Burkina Faso Energy Profile'. At: [https://wedocs.unep.org/bitstream/handle/20.500.11822/20481/Energy\\_profile\\_Burkina.pdf?sequence=1&amp;%3BisAllowed=.](https://wedocs.unep.org/bitstream/handle/20.500.11822/20481/Energy_profile_Burkina.pdf?sequence=1&amp;%3BisAllowed=)

105 Ibid.

106 IMF (2018), 'Burkina Faso Economic Development Documents'. At: <https://www.imf.org/~media/Files/Publications/CR/2018/cr1885.ashx>.

107 EnergyNet Videos (2019), 'aefTV 2019 Interview: H.E Hon. Bachir Ismael Ouedraogo, Minister of Energy, Burkina Faso'. At: [https://www.youtube.com/watch?v=Kj01KX5\\_siM&ab\\_channel=EnergyNetVideos](https://www.youtube.com/watch?v=Kj01KX5_siM&ab_channel=EnergyNetVideos).

108 International Finance Corporation (2021), 'Burkina Faso Could Boost Renewable Energy Mix with Battery Storage: IFC-supported Roadmap'. At: <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26664>.

---

## Burkina Faso's conflict dynamics and energy

The current security and conflict situation in Burkina Faso is complex and multifaceted. While much of the immediate international response is focused on the security situation and the growth of jihadist groups, especially in rural areas in the north, the causes of conflict are rooted in issues of governance, rural/urban divides, land disputes, resource competition, and legitimacy.<sup>109</sup> Many of these intersecting issues have highly local characteristics, specific to geographical areas and cross-border regions. These need to be taken into account by development interventions and projects. To redress development disparities and mitigate resource competition, it is especially important to analyse how energy resources are distributed, allocated and shared by communities, and especially between rural and urban communities. It is also vital to understand the presence of the State and its (perceived) legitimacy in rural areas.

Poor governance arrangements are another major conflict dynamic in the country. They have led to a significant increase in the number of conflicts over land and natural resources. The Ministry of Justice, Human Rights and Civic Promotion has estimated that these cause 90% of conflicts in the country.<sup>110</sup> While most violence occurs in the north, rural conflicts exist all over the country, aggravated by weak administration, lack of basic services, resource competition, poor or non-existent management of resources, failures of citizen engagement, and social causes related to degraded norms and social cohesion. They combine further with significant population growth, demand for land that is not available, field boundary problems, and differences over the interpretation and reconciliation of customary and formal law. Many of the conflicts are between sedentary crop farmers and transhumant pastoralists.

The State's ability to mediate these conflicts is undermined by the weak legitimacy of State institutions and public distrust. These attitudes are directly linked to the wide gap that exists between the public services available in urban and in rural areas - of electricity, but also sanitation, potable water and handwashing facilities. In recent years, access to clean water has actually declined in rural areas.<sup>111</sup> The absence of basic services reflects the absence of the State in many rural areas, which feeds popular mistrust of elites and the State. This has been cited as a key factor that has enabled non-State actors to incite resistance by exploiting local grievances, among farmers and breeders that have been victims of land injustices or racketeering, gold miners in search of protection, other stigmatised groups, and young adults who have organized self-defence groups. These conditions have been exacerbated by internationally-supported counter-terrorism operations that have killed rather than arrested suspects and committed multiple abuses against civilians. Rather than addressing the cause of grievances that are rooted in demands for development, livelihoods, and fair access to benefits and services, these policies have driven victims of State violence, especially Fulani communities, to join armed groups.<sup>112</sup>

Failure to invest in infrastructure development, especially energy, has driven up energy costs, stifling the economy's capacity to transition to manufactures that will add more value. This entrenches dependence on subsistence agrarian farming and the exploitation of resources like gold and cotton, which are regularly exposed to external economic shocks. Combined with population growth, these development conditions stoke resource competition in rural areas and create conditions for continued conflict.

---

109 Belanger, C., Derenoncourt, G., Landry, C. (2020), 'State Fragility in Burkina Faso: Analysis and Policy Brief'. At: <https://reliefweb.int/sites/reliefweb.int/files/resources/Burkina-Faso-Fragility-Brief-2021.pdf>.

110 Ministry of Territorial Administration, Decentralisation and Social Cohesion (2019), 'Situation des conflits dans les régions du Burkina Faso de 2012 à 2019'. See also, FAO (2021), 'Burkina Faso - Analysis of conflicts over the exploitation of natural resources: Summary'. At: <https://reliefweb.int/sites/reliefweb.int/files/resources/cb6023en.pdf>.

111 FAO (2021), 'Burkina Faso - Analysis of conflicts over the exploitation of natural resources: Summary'. At: <https://reliefweb.int/sites/reliefweb.int/files/resources/cb6023en.pdf>.

112 International Crisis Group (2020), 'Burkina Faso: sortir de la spirale des violences'. At: <https://www.crisisgroup.org/fr/africa/sahel/burkina-faso/287-burkina-faso-sortir-de-la-spirale-des-violences>.

How energy is deployed for industrial purposes can also affect conflict dynamics. Alongside land disputes, mineral resource conflicts are also widespread, and energy use tends to either exacerbate or redress them. It is estimated that energy costs absorb approximately 45% of the value of industrial gold production in Burkina Faso.<sup>113</sup> This underlines the extent to which more reliable and cheaper energy could trigger significant additional investment in the industrial mining sector - with potentially negative and positive consequences. Gold production in Burkina Faso is a mix of industrial and artisanal production. The artisanal sector has complex ethnographic features.<sup>114</sup> It has also been shown that industrial gold mines that privatise natural resources can significantly increase production efficiency and generate significant additional taxation revenue for the State.

Here is the dilemma. On one hand, it is important for the country to develop the State's capacity and expand the tax base to fund service delivery in rural areas. On the other, industrial mines are far less labour intensive than artisanal mines and can create incentives for corruption by centralising resources. Artisanal mines have been shown to share the income from mining much more broadly, and have been linked with increases in consumption at community level.<sup>115</sup> Conversely, growth in artisanal mining has generated local land conflicts as well as environmental conflicts between miners and local populations. These bifurcated downstream impacts in just one sector highlight the importance of developing high-quality conflict analysis to inform the deployment of peace bond capital in Burkina Faso.

## Peace and conflict dynamics in northern Ghana

The proposed project would be established in the Northern Region of Ghana. Chieftaincy conflicts in northern Ghana are the major peace and conflict factor in the region. The most prominent conflicts involve the Dagbon, Bawku, Bimbilla, Bolga and Bole chieftaincies.<sup>116</sup> Chieftaincy is a recognised part of the country's governance and chiefs settle conflicts and govern community lands. The de-

sign and establishment phases of the project, and its PEMs, would need to engage carefully with local dynamics in the area chosen. Depending on the site and the relevant chieftaincy, local conflict dynamics might be complex and might have a long history that is intertwined with ethnic and family dynamics as well as the modern and traditional political systems.

---

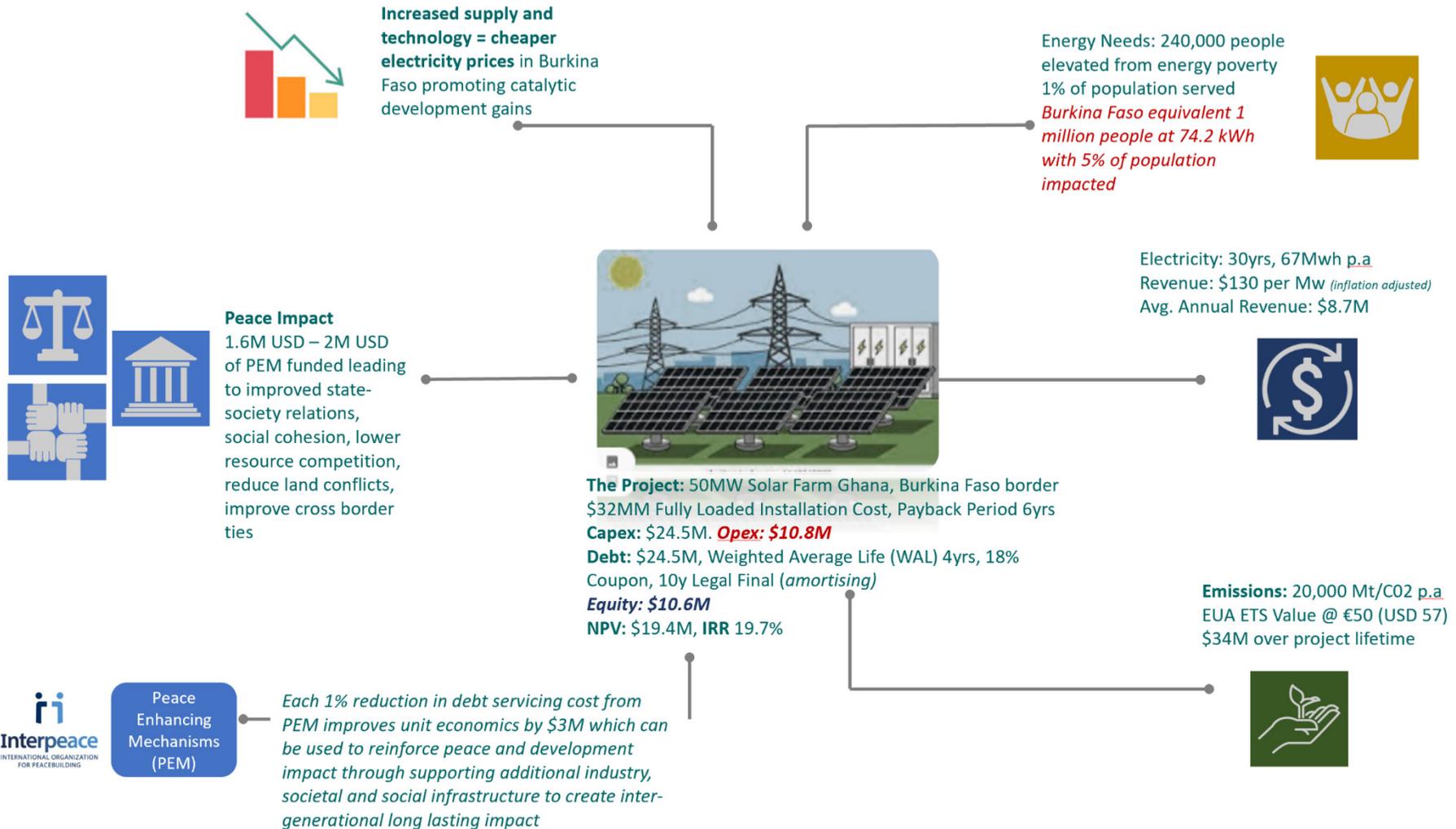
113 EnergyNet Videos (2019), 'aefTV 2019 Interview: H.E Hon. Bachir Ismael Ouedraogo, Minister of Energy, Burkina Faso'. At: [https://www.youtube.com/watch?v=Kj01KX5\\_siM&ab\\_channel=EnergyNetVideos](https://www.youtube.com/watch?v=Kj01KX5_siM&ab_channel=EnergyNetVideos).

114 Lanzano, C., di Balme, L. (2021), 'Who owns the mud? Valuable leftovers, sociotechnical innovation and changing relations of production in artisanal gold mining (Burkina Faso)', *Journal of Agrarian Change*, Vol. 21, Issue 3. At: [Who owns the mud? Valuable leftovers, sociotechnical innovation and changing relations of production in artisanal gold mining \(Burkina Faso\) - Lanzano - 2021 - Journal of Agrarian Change - Wiley Online Library](https://onlinelibrary.wiley.com/doi/10.1111/jac.12444)

115 Bazillier, R., Girard, V (2020), 'Gold mining in Burkina Faso: Who wins?', *VoxDev*. At: <https://voxdev.org/topic/firms-trade/gold-mining-burkina-faso-who-wins>.

116 Bukari, K., Kufour, P., Bukari, S. (2021), 'Chieftaincy conflicts in Ghana are mixed up with politics: what's at risk', *The Conversation*. At: <https://theconversation.com/chieftaincy-conflicts-in-ghana-are-mixed-up-with-politics-whats-at-risk-166602>.

Figure 8. Ghana-Burkina Faso renewable energy peace bond



## Commercial appraisal and peace enhancement prospects of the Ghana-Burkina Faso renewable energy peace bond

The proposed project is a 50MW solar farm based in northern Ghana, near the Burkina Faso border, that would deliver energy to communities in Burkina Faso through a PPA with the Government of Ghana. Based on Burkina Faso's current low levels of energy consumption, the project would provide energy equivalent to the needs of one million people or 5% of the population. The energy produced would be equivalent to 20,000Mt of CO2 per annum, which would generate carbon credits under the European Union Allowance (EUA) Emissions Trading Scheme (ETS) of approximately EUR 34M during the project's lifetime.

Solar photovoltaic (PV) power has numerous commercial and peace benefits in fragile settings and is also highly scalable. The system uses solar cells linked together in modules (solar panels), so that, on a small scale, affordable solar home systems

can be used to supply amenity power to remote, off-grid households. In East Africa, the off-grid, pay-as-you-go market offers systems from zero to 150-watt peak range. They are attractively priced, often require no down payment, and can run appliances such as radios, televisions, and fridge freezers. Larger solar PV plants have thousands of solar panels and can be built incrementally. The value and environmental desirability of solar farms and renewable energy are well known: it is less well known that they can be a catalyst for PEMs.

With its partners, Interpeace has evaluated a specific project in Ghana, including PEMs, and compared it to the commercial outcomes that would be desired from a similar infrastructure development.

The commercial aspects of the project are detailed in table 8.

**Table 8. Summary of the commercial appraisal and peace enhancement prospects of the Ghana-Burkina Faso renewable energy peace bond**

The project	Commercial aspects	Opportunities (PEM)
Commercial solar farm project <b>Installation: 50MW</b>	<b>Annual revenue: USD 8.7M p.a.</b>	The project's revenue funds PEMs that have both direct and indirect impacts on peace and conflict dynamics.
<b>Power purchase agreement</b>	Bilateral Ghana and Burkina Faso export agreement, which is part of the West Africa Power Pool.	Generation covers 14 of the 15 countries of the regional economic community (Benin, Côte d'Ivoire, Burkina Faso, Ghana, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo). The project will add to the stability of regional power system integration and help to realise a regional electricity market. <sup>117</sup> Improves cross border interdependence between Ghana and Burkina Faso.
<b>Land area</b>	150 acres in northern Ghana, near the Burkina Faso border. No. of Panels: ~150,000.	The project will adopt an inclusive and participatory land acquisition process, based on multistakeholder dialogue. It will encourage cross border community engagement, security, and power sharing agreements

<sup>117</sup> Economic Community of West African States, 'The West African Power Pool'. At: <https://www.ecowas.int/specialized-agencies/the-west-african-power-pool-wapp/>.

The project	Commercial aspects	Opportunities (PEM)
<b>Operational expenditure (Opex)</b>	USD 10.6M.	Operational expense is directly affected by conflict and risks to peace. It is estimated that Initial NPV profitability can reduce Opex by c. 10-15% at the front-end during the construction phase by building community trust and engagement.
<b>Capital expenditure (Capex)</b>	USD 24.5M.	PEM can reduce the country risk premium and the risk on debt and thereby the cost of borrowing.
<b>Capital structure</b>	70% debt. 30% equity. Debt @ 17%, WAL 4 yrs. Legal Final: 10yrs. Average principal repaid: USD 2.5M p.a. Equity FCF USD 6.5M p.a. Initial equity outlay of USD 10.5M repaid at end of Year 7.	PEM combined with community-based engagement (CBE) approaches and benefit sharing arrangements can unlock long term project sponsors and guarantors because project cash flows will be more predictable.
<b>The opportunities for peace enabled finance</b>		Short term PEM value is estimated at 100bps to 200bps on the cost of debt, conservatively worth USD 3M to USD 6M upfront. Longer term, once reliable cash flows are developed, PEM impact may be upwards of 200bps to 500bps floored at the PPA risk premium attached to Ghana.

### General risk factors include:

- Construction risk.
- Operational risk.
- Property and equipment risk (~150K panels).
- Personnel risk.
- Security risk.
- Credit risk.
- Market risk.
- Overall financial risk.

## Potential peace enhancement mechanisms

A number of PEMs might be integrated in the design, use, implementation and management of the proceeds of this proposed project.

The project's peace pathways and peace impacts would:

1. Improve State-society relations and trust in Burkina Faso by improving delivery of services and energy to under-served rural communities.
2. Help to reduce natural resource competition in agricultural areas of Burkina Faso by earmarking energy use to specific under-served rural communities, potentially alongside coordinated development actions by peacebuilding and food security actors.
3. Further strengthen cross-border ties between Ghana and Burkina Faso, as well as regional economic integration, boosting the resilience of regional diplomacy and cross border co-operation.
4. Improve horizontal (inter- and intra-community) and vertical (community-State) trust and cohesion in northern Ghana by adopting peace

responsive land acquisition processes, promoting participatory dialogue, and establishing long-term benefit-sharing mechanisms (training, maintenance, local governance).

5. Create peace additionality by: (1) increasing the opportunity cost of engaging in violence and destruction of investment assets by means of benefit sharing and community engagement; (2) earmarking conditional additional funds for intentional peace actions in co-agreed areas of need.
6. Create financial additionality by demonstrating that real asset risks in the region can be controlled, potentially stimulating future investment to meet other development needs.

These peace pathways could be achieved through interconnected peacebuilding activities or PEMs developed in partnership with civil society, governments, local hybrid governance networks, peacebuilding actors and private sector developers.

Practically, they could be achieved using the following PEMs:

- **Participatory peace and conflict analysis and resilience mapping.** The project would analyse political and economic dynamics in the project area of Ghana and in communities that will receive the energy in Burkina Faso. The work would be done by two local partners, one in Burkina Faso and the other in Ghana. They would use peacebuilding approaches and tools, such as participatory action research and participatory polling, to map key issues and key stakeholders. This analysis would inform a menu of options for PEMs that could be developed in association with other partners in the PPA and other PEMs of the project. A menu of potential PEMs would be costed and theories of changes developed for consideration by stakeholders during design of the project, and as it progressed.

- **Establish a locally designed multi-track platform to embed peace responsive commitments into the PPA.** This exercise would be done in partnership with relevant energy and development authorities in the Burkina Faso Government, Ghana Government, and local governments, as well as hybrid governance levels, alongside international development partners, peacebuilding actors, private issuers of the peace bond, and project owners. A key objective of the platform would be to intentionally earmark co-owned and co-developed conflict sensitive and peace responsive actions in the PPA underpinning the project. There are approximately 90 local co-operatives in rural areas with an authorisation or concession to manage a local distribution network in Burkina Faso. Most of these are connected to a grid and some have generation capacity or are linked to mini grids that supply an average of 300 customers.<sup>118</sup> The peace and conflict analysis, supported by a technical advisory from the issuing company, would need to identify strategic entry points for PEMs. The Ministry for Energy and other peak bodies, such as the National Union of Electricity Co-operatives in Burkina Faso (UNCOOPEL, a national coordinator and capacity builder of rural co-operatives), would participate in the process.

The specific parameters of PEMs in the PPA would need to be developed in partnership with relevant authorities through a dialogue process. In practise, through participatory co-design with relevant authorities, they could aim to achieve the following:

- **Allocate energy for under-served rural communities in Burkina Faso, or for specified agricultural purposes that can reduce resource competition.** Examples based on the peace and conflict analysis might include: provision of subsidised or cheap power for water pumping; providing energy to climate smart infrastructure;<sup>119</sup> supporting food storage infrastructure in specific areas of concern.

<sup>118</sup> Energypedia (2020), 'Burkina Faso Energy Situation', [https://energypedia.info/wiki/Burkina\\_Faso\\_Energy\\_Situation](https://energypedia.info/wiki/Burkina_Faso_Energy_Situation).

<sup>119</sup> CGIAR's Climate Change, Agriculture and Food Security (CCAFS) programme, 'Developing Climate-Smart Village Models in West Africa'. At: [Developing Climate-Smart Village models in West Africa \(cgiar.org\)](https://www.cgiar.org/development-climate-smart-village-models-in-west-africa/).

- ❑ **Allocate a proportion or percentage of profits from the energy venture to intentional peacebuilding actions led by local civil society and peacebuilding actors.**

This work could focus on boosting conflict management capacities, for example by supporting pastoral infrastructure committees to help address local land and resource conflicts.

- **Establish a local peace infrastructure, including multistakeholder dialogue and a benefit sharing platform, run by key community members and stakeholders in the project area in northern Ghana.** It might have the following aims:

- ❑ Engage the local community in a participatory discussion of the purpose and potential benefits of the development.
- ❑ Co-design realistic, conflict sensitive and modest benefit-sharing arrangements, that could involve skills training and employment, for constructing and maintaining the development.
- ❑ Co-design a community-led mechanism for managing the development, in partnership with local authorities, relevant local leaders and hybrid authorities. The mechanism would provide long term oversight, maintenance and community governance, reinforcing the development's local legitimacy.

- **Establish a community land acquisition dialogue mechanism.** This would be a specific community consultation and engagement mechanism to ensure that the project acquires

land fairly and legitimately. The project would agree a compensation scheme with key actors in the community.

- **Establish a dedicated representation, research and monitoring and evaluation function funded by the proceeds of the project. It would have three pillars.**

- ❑ It would maintain an excellent qualitative and quantitative monitoring database of key peace bond-related metrics and peace bond principles, and report to an appropriate independent third party. Monitoring would be particularly active in the first two years of the project's implementation, tapering to biannual monitoring thereafter. A third party peacebuilding or development organization would be contracted.
- ❑ It would sustain dedicated Track 1 and Track 1.5 engagement with government, development partners, DFIs and civil society organizations, to continue policy advocacy on learnings that emerge from the project, for the benefit of other peace bond issuances.
- ❑ It would contain a dedicated learning function, to understand key peace responsive actions related to the investment area of renewable energy, and to develop communication materials on the connection between peace enhancing mechanisms, risk premiums and subsequent borrowing costs. This would involve an outcome harvesting exercise and summary of key peace bond metrics. A small panel survey would be repeated in the community of operation.

## Estimated cost of PEMs

The cost of PEMs, outlined here, could be framed visually, taking account of the project’s ambition, determined by investors, and the financial additionality the project creates.

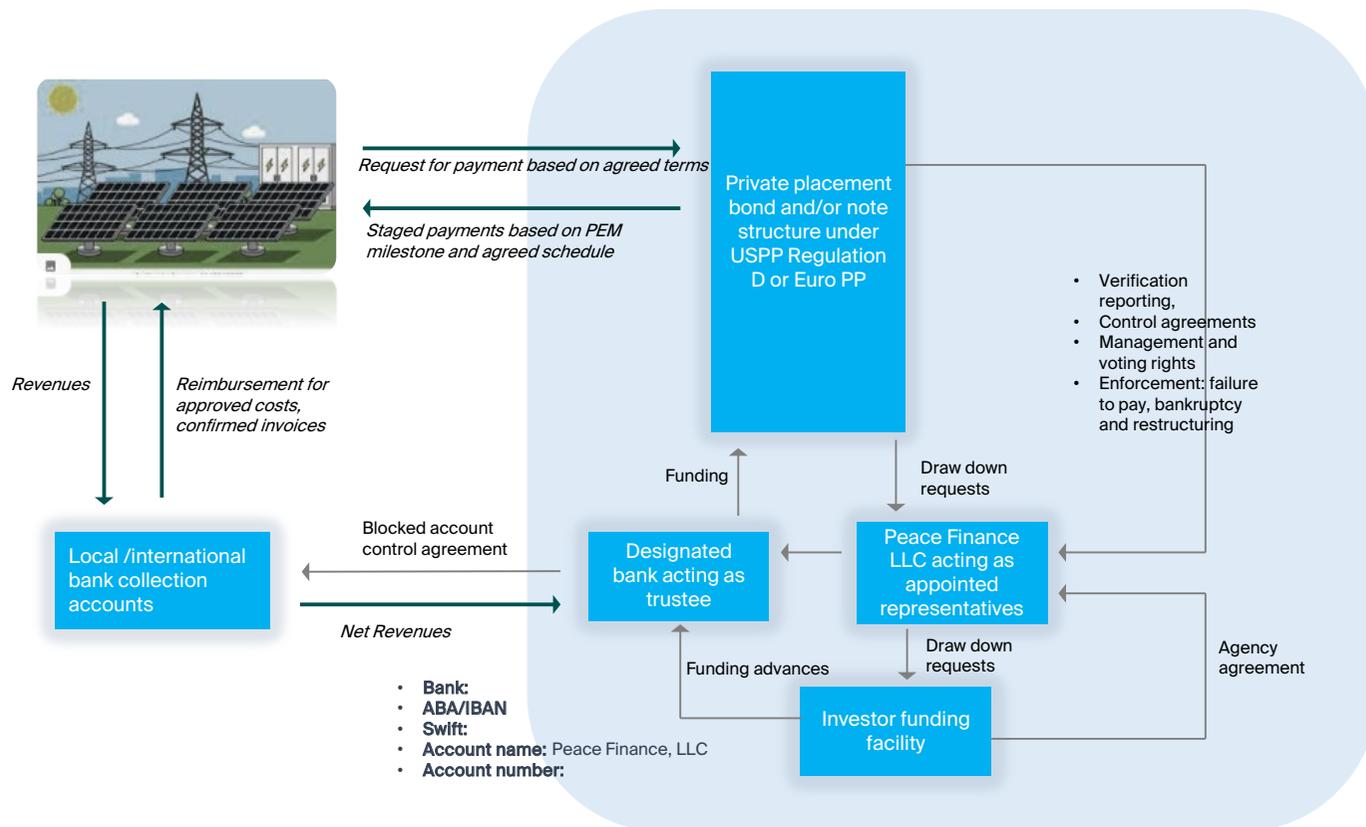
**Table 9. The estimated costs of peace enhancement mechanisms (PEMs)**

Peace enhancing mechanisms	Project phase and time period	Estimated cost (USD)
Participatory peace and conflict analysis and resilience mapping.	Design and commencement phase, circa 18 months.	200K total.
Multi-track engagement platform to embed peace responsive commitments into the power purchase agreement.	Design and commencement phase, circa 18 months.	300k total.
Local peace infrastructure involving multistakeholder dialogue and benefit sharing platform.	Design, commencement and implementation, six years.	300k in year 1. 25k per year for project duration (6 years) = 450k total.
Community land acquisition dialogue mechanism.	Design and commencement phase, circa 18 months.	80k total.
Representation, research and monitoring, and evaluation function.	Design, commencement and implementation, 10 years.	Year 1 – 125k. Year 2 – 125k. Thereafter, 50k biannually over 10 years = 250k. Total: 400k.
Benefit sharing and additional peacebuilding actions	Project phase and time period	Cost
Skills-based training	Design and commencement phase, circa 18 months	200k
Subsidised energy for under-served communities	Depends on the dialogue process and whether the project can meet expectations.	Conditional on project implementation.
Additional peacebuilding actions	After project is able to demonstrate bankability and risk profile.	Conditional on project implementation.
<b>Total cost of all peace enhancing mechanisms</b>	USD 1.63 M. The cost could increase to USD 2M if additional actions are included in the PEM process.	

## Summary of the structure of the Ghana-Burkina Faso peace bond

Figure 9 visualises the structure of the Ghana-Burkina Faso peace bond. It is proposed to issue it under a private placement regulatory framework, offered under Regulation D Sec 506 or the equivalent European Private Placement standards.<sup>120</sup>

Figure 9. Summary of the structure of the Ghana-Burkina Faso peace bond



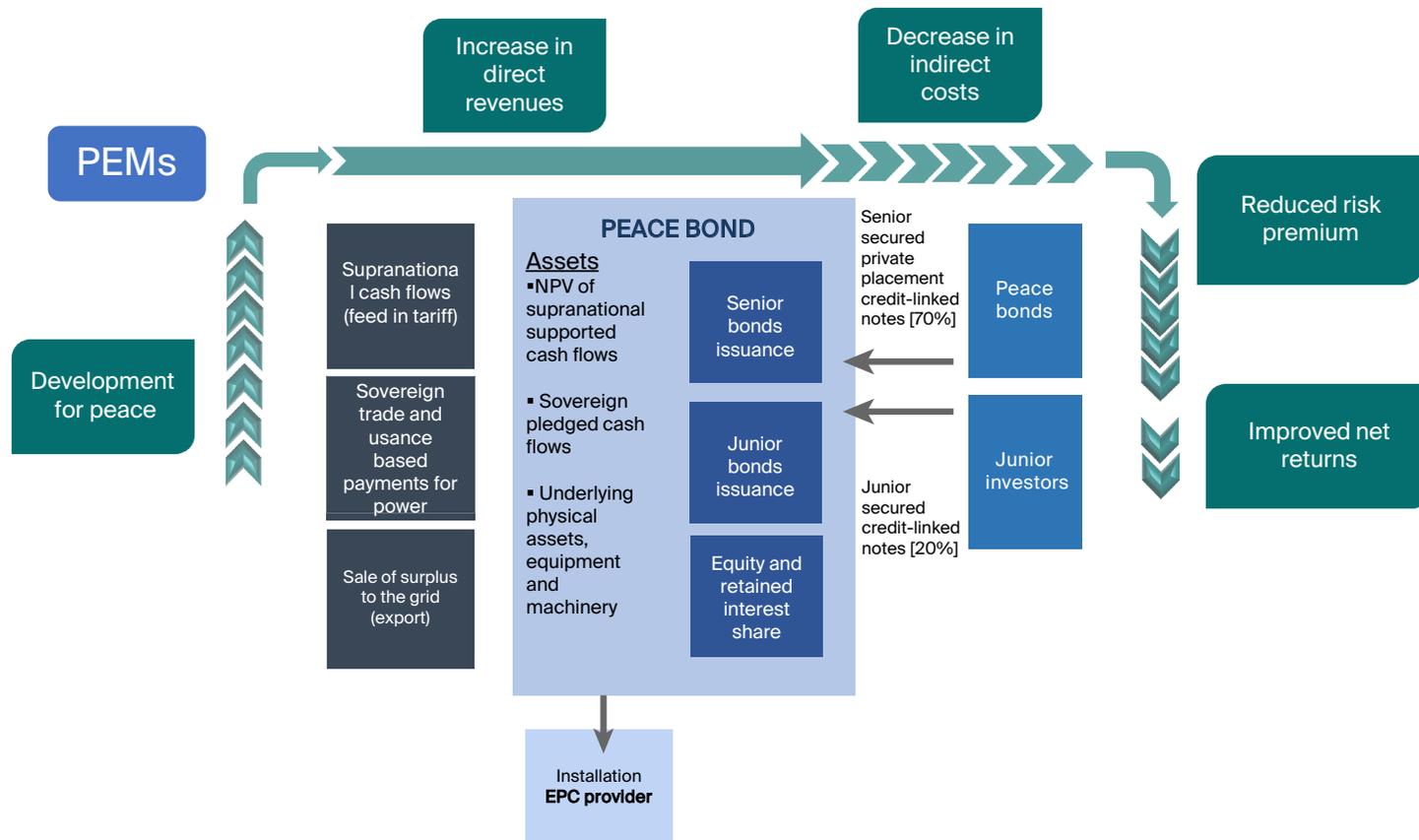
<sup>120</sup> Initially, to keep the framework agreements manageable, the Ghana-Burkina Faso peace bond could be issued under a private placement regulatory framework, under Regulation D Sec 506 or equivalent European Private Placement standards. From both the European and US perspective, an incorporated Issuer (an incorporated entity/company with limited liabilities), such as *Interpeace LLC*, would have to be created in a neutral jurisdiction in which withholding taxes, repatriation and application of English law, New York law, and the laws of respective international courts of arbitration, are not disallowed. Future structures could make use of multi-issuer and private limited companies that provide additional flexibility when issuing hybrid forms of debt and equity, ring fenced by individual projects or cross-collateralised through financial security arrangements with pledges and blended finance.

# The financial impact of peace enhancing mechanisms

Figure 10. How the peace bond structure and PEMs create value

Energy Infrastructure connected to PEMs can meet development needs, increase community buy-in, address conflict dynamics and lower risk – thereby increasing net returns.

## Transaction structure and overview



**Table 10. How PEMs in infrastructure can increase value**

<b>A. Infrastructure for development</b>	Essential infrastructure supports development, which, if delivered equitably and inclusively, can support peace. Maintaining key infrastructure in fragile and conflict affected settings, and promoting its fair and equitable use, improves social cohesion, community development, and State-society cohesion, and can maintain livelihoods.
<b>B. Increase in direct revenues</b>	Essential infrastructure delivered in peace responsive ways will lower risks and improve cash flows. Additional cash flows will fund PEMs that will further lower risks.
<b>C. Decrease in indirect costs</b>	Certainty of energy provision can improve economic planning and have network effects on other development actions.
<b>D. Reduction in risk premium</b>	The costs of political risk, conflict risk and destruction are uninsurable on the balance sheets of the largest (re)insurers who need to hold 1:1 for capital. This discourages private, supranational and commercial enterprises from entering the market because volatile outcomes attract high risk premiums. The solution is to reduce conflict risk premiums by introducing community, social and peacebuilding processes alongside commercial infrastructure development.
<b>E. Increase in net realised returns</b>	Net realisable returns are explicit benefits of cash flow from financing FCFF (free cash flow) and FCFE (free cash flow to equity). For the funder/investor, these manifest at the discount margin applicable to a project's cash flow.

## The conflict risk premium, and the net realisable value from peacebuilding and PEMs

To understand how peacebuilding actions or PEMs lower risk and create value, it is useful to understand how markets assess country risk and especially risks related to conflict. The country risk premium (CRP) is the additional return or premium demanded by investors to compensate them for the higher risk associated with investing in a foreign country, compared with investing in the domestic market. According to Damodran,<sup>121</sup> country risk takes account of numerous factors, including:

- Political instability.
- Economic risks, such as recessionary conditions, rising inflation, etc.
- Sovereign debt burden and default probability.

- Currency fluctuations.
- Adverse government regulations (expropriation, currency controls).

Table 11 summarises the bond ratings and appropriate default spreads for different countries in early 2021. The local currency sovereign rating is available from Moody's. The estimate of the default spread for that rating (based upon traded country bonds) over a default free government bond rate can be calculated from empirical data spanning the last 20 years, or from the country's bonds relative to a risk-free rate, usually the German CDS (credit default swap) or US CDS market for long dated tenors. CDS spreads are a good proxy for an individ-

<sup>121</sup> Aswath Damodaran, finance professor at NYU's Stern School of Business, maintains a public database of his CRP estimates that are widely used in the finance industry. On 1 July 2020, Damodaran assumed the risk premium for a mature equity market was 5.23%. He estimated the mature market risk premium was 4.56% to 4.72%.

ual country’s expected default risk premium (via its Ratings Based Default Spread). The CDS spread for a country, after adjusting for the US CDS spread, can be deemed a proxy for country spread.

**Table 11. Ratings-based default spreads, equity and the country risk premium by geopolitical region, 2021**

Country	Average rating	Number of countries	Ratings-based default spread	Equity risk premium	CDS and bond prices or ratings-based default spreads
Africa	B2	30	4.98%	10.03%	5.46%
Middle East	Baa2	13	3.16%	8.19%	3.47%
Eastern Europe and Russia	Ba1	27	2.88%	7.87%	3.15%
Western Europe	A1	26	1.06%	5.88%	1.16%
Central and South America	Ba3	19	4.96%	10.18%	5.46%
Caribbean	Ba1	14	3.02%	8.03%	3.31%
Australia and New Zealand	A1	3	1.33%	6.17%	1.45%
Asia	Baa3	24	2.89%	7.89%	3.17%
North America	Aaa	2	0.00%	4.72%	0.00%

### Implying a conflict risk premium: Ghana as an example

Because the proposed project is located in Ghana, the relevant country risk premium is calculated based on a credit default swap rate for Ghana. Figure 11 shows that the market pricing for default insurance on Ghana deteriorated significantly during 2021 and the latest sovereign default rate estimate is 8.69%.

**Figure 11. Ghana versus Africa sovereign spread**

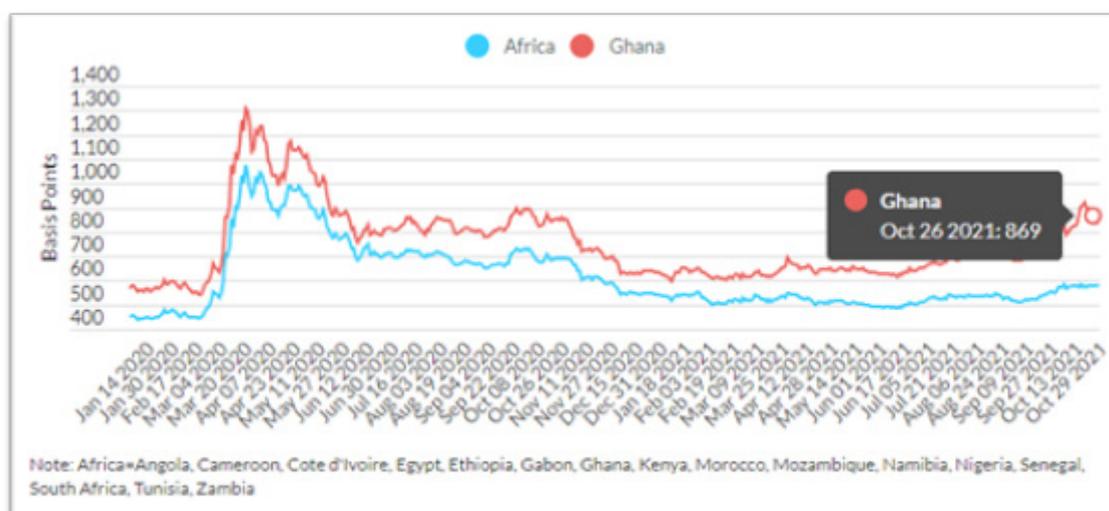


Table 12 below sets out the steps to estimate the interest rate applicable to debt used to fund the project. The first two components estimate the sovereign debt rate for Ghana and the average corporate debt premium above the sovereign rate for Ghana. This is done following a similar methodology as used by NYU Stern School of Business.

- The sovereign debt rate is calculated using steps 1 and 2 and the rate for Ghana plus a ‘risk free’ rate for the US of 15bps is 8.69%. This gives a base rate to which we need to add on the risk of the average corporate debt for Ghana.
- An overall estimate of the riskiness of corporates in Ghana relative to the US corporates can be estimated by comparing the equity risk premium in Ghana with the equity risk premium in the US, see step 3 and the ‘emerging market premium’ value is 5.20%.

The sovereign rate plus an emerging market premium is 13.89%, see step 4. This is a useful starting point to evaluate debt on commercial projects on average in Ghana.

Next the project finance risk of this specific project needs to be accounted for. This project has additional risks, relative to the average corporate, as it is a new project that involves construction and operations to be established. Here we have estimated at step 5 a finance risk premium for this project of 3%.

Finally, we estimate that the conflict risk premium for the project, which is in excess of any conflict premium already captured in the sovereign rate, is 2%, see step 6. The result is an overall rate of debt for the project of 18.89%.

**Table 12. Calculating the components of Ghana’s country risk premium**

Step	Ghana
Find a country’s credit (bond) risk rating.	Credit risk rating: B2/B-
Based on that rating, determine the credit default swap for sovereign debt for that country, which is the additional yield over a risk-free investment.	Credit spread for B2/B-rating plus ‘risk free’ rate is 8.69%
Add a corporate emerging market premium (estimated using the country risk equity premium for Ghana relative to the mature US S&P500 market risk premium).	5.20% emerging market premium
The resulting value is the country’s average corporate debt premium/ rate.	<b>13.89%</b> country corporate debt premium/rate
The project finance risk premium	3% [1% to 4%]
The Conflict Risk Premium	2%
The overall <i>debt coupon</i> rate for Project Finance where PEM could make a substantial impact (before PEM, CBE (community based engagement) and reconciliation initiatives)	<b>19% (rounded)</b> (13.89% + 3% + 2%)

The feasibility case has costed the debt on the proposed Ghana solar farm project as around 19%. There are risks it could be higher due to the significant possibility of a further downgrade in Ghana’s rating and its burdensome interest expense amongst its peers.<sup>122</sup>

It may also be slightly lower as there is a significant body of work and literature around the evaluation of infrastructure risk premiums in sub-investment grade countries and their desirable premiums that show large comparable infrastructure projects in Kenya (B2 rating) have been observed in the range of 13% to 17%.<sup>123</sup>

122 Credendo, ‘Country risk Ghana’, at: <https://credendo.com/en/country-risk/ghana> (accessed 10 December 2021).

123 Mbeng Mezui, C. A., Hundal, B. (2013), ‘Structured Finance: Conditions for Infrastructure Project Bonds In African Markets’, African Development Bank Group. At: [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Structured\\_Finance\\_-\\_Conditions\\_for\\_Infrastructure\\_Project\\_Bonds\\_in\\_African\\_Markets.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Structured_Finance_-_Conditions_for_Infrastructure_Project_Bonds_in_African_Markets.pdf).

## The conflict risk premium in the context of PEMs

The conflict risk premium is not immediately visible in markets. However, the converse is sometimes implied. The widely-used methodology of the PRS International Country Risk Guide (ICRG)<sup>124</sup> applies a quantitative approach using an index methodology that weights key risk factors against each other and combines them in a composite measure. The political risk ratings aggregate 12 weighted metrics, covering a range of elements that could prove injurious to business and other commercial inter-

ests. The economic and financial risk variables include, for instance, real GDP growth, inflation, fiscal and current account balances, external debt and debt servicing capacity, liquidity sufficiency, and currency stability.

The risk components, weighted and sequenced, are used to produce a political risk rating. PEM has the ability to lower risk premiums in 9 of the 12 categories.

**Table 13. Comparing the potential of PEM impacts to reduce risk premiums (political risk scores)**

Factor	Component	Weighting	PEMs direct impact	PEMs indirect impact	Rationale
A	<b>Government stability</b> → Government unity. → Legislative strength. → Popular support.	12		✓	Provision of energy is related to the social contract between the State and the people and is a key aspect of the conflict dynamic in Burkina Faso.
B	<b>Socioeconomic conditions</b> → Unemployment. → Consumer confidence. → Poverty.	12	✓		Energy poverty and low living standards are intrinsically linked to dependence on low productivity subsistence agriculture, which feeds urban migration. Lack of cheap energy undermines the ability of Burkina Faso to move to value added manufacture.
C	<b>Investment profile</b> → Contract viability / expropriation. → Profits repatriation. → Payment delays.	12	✓		The credibility and engagement of the PPA process will determine whether the Ghana government honours it and whether communities buy into the development. Political support for the project is critical to contract viability.
D	<b>Internal conflict</b> → Civil war/coup threat. → Terrorism/political violence. → Civil disorder.	12		✓	Civil disorder in rural areas of Burkina Faso is intimately linked to State service provision. Electricity can be an important development stabilisation measure, making it less likely that communities will join or support jihadist or other non-State groups.
E	<b>External conflict</b> → War → Cross-border conflict → Foreign pressures	6	✓		The electricity trade between Ghana and Burkina Faso can deepen regional trade ties and interdependence, increasing incentives for cross border collaboration.

124 PRS Group, 'The International Country Risk Guide Methodology'. At: <https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf>.

Factor	Component	Weighting	PEMs direct impact	PEMs indirect impact	Rationale
F	<p><b>Corruption</b></p> <ul style="list-style-type: none"> <li>→ Excessive patronage.</li> <li>→ Nepotism, job reservations, 'favour-for-favours', secret party funding, and suspiciously close ties between politics and business.</li> </ul>	6	✓		The PEMs aim to reduce disruption and misappropriation, and improve transparency at all stages of the project (design, construction, implementation and operation).
G	<b>Military in politics</b>	6			
H	<p><b>Religious tensions</b></p> <ul style="list-style-type: none"> <li>→ Religious dominance and favouritism.</li> <li>→ Civil law/democratic rule replaced religious law.</li> <li>→ Imposing inappropriate policies via civil dissent to civil war.</li> </ul>	6		✓	The PEMs will engage Ghanaian chieftain systems and customary law systems to ensure that land purchase processes are peace responsive.
I	<b>Law and order</b>	6			
J	<b>Ethnic tensions</b>	6	✓		The PEMs will engage the Ghanaian chieftaincy and customary law systems to ensure land purchase processes are peace responsive. The PPA will earmark provision of energy for rural communities in Burkina Faso.
K	<b>Democratic accountability</b>	6	✓		
L	<b>Bureaucracy</b>	4			
Grand Total		100	6 out of 12 categories = 48/100	3 out of 12 categories = 30/100	

PEMs can potentially make a contribution in nine of the 12 categories, and directly address six of the 12 categories. They directly address 48% of the components of the Political Risk Score and indirectly address a further 30%. It is feasible that a 30% to 50% direct contribution could justify and imply a reduction in the risk premium of the discount rate of infrastructure projects. This would be achieved by PEMs that promote community-based engagement, local trust and buy-in, increase security, and raise the probability that overall operations will deliver expected cash flows.

Some risk factors are clearly more critical than others. Research literature suggests that significant risk is present during the design and construction phases, when trust or lack of trust determine whether investment profile risks are contained. Nonetheless, the components in this table and in the Political Risk Score framework are well established. Combined with the listed market prices of

frontier markets,<sup>125</sup> they provide an objective measure of the influence of peacebuilding activities and proposed PEMs, as well as associated development infrastructure.

This can be reinforced by assessing research by Damodaran.<sup>126</sup> This found that several frontier markets (many of which are classified as fragile and conflict affected) that used the PRS scoring exhibit an equity risk premium of 15%-22%. There is no observable credit default insurance premium or project finance risk premium for these markets. In the case of Ghana, an equity risk premium of 13.89% is proposed is (see Table 12), which, when project finance and conflict risks are taken into account, leads to a proposed overall debt coupon of 19% (rounded). Comparing equity risk premiums for frontier markets and the case study, using only Damodaran's methodology, implies that PEMs can reduce risk, providing a credible and realisable net gain in NPV and project fundamentals.

---

125 The term 'frontier market' denotes a developing country market economy that is more developed than a least developed country's market economy, but too small, risky, or illiquid to be called an emerging market economy.

126 Damodaran, at: <https://pages.stern.nyu.edu/~adamodar/>.

## Explaining the structural features of lowering the risk premium using PEMS, in theory and practice

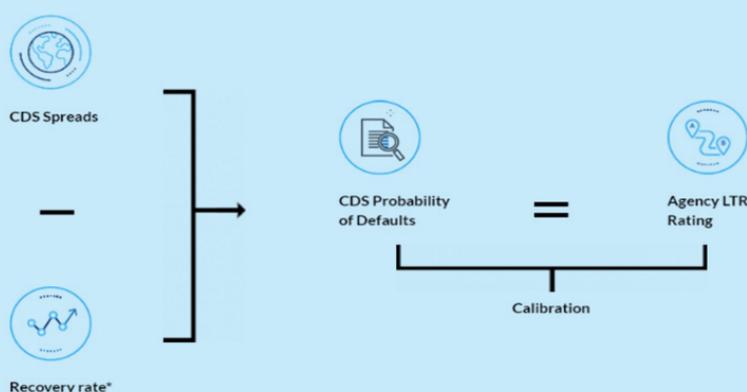
According to relevant financial literature, the annual insurance premium (expressed in basis points as a fraction of the underlying notional) that a buyer pays to protect against default is called the CDS premium. As in a standard swap, the CDS premium is set such that the CDS has zero value at the origination of the contract. The CDS premium (C) can be split into an expected loss (EL) component, which depends on the recovery rate (R) and the probability of default (PD) plus a risk premium (RP). This (approximate) decomposition can be written as:

$$C = EL + RP$$

$$C = (1 - \text{Recovery Rate}) * PD + RP$$

Practically, the PEM methods proposed have lowered the risk premium (RP). But there is a correlation between recovery rates, probability of default and the risk premium. A project with a 100% probability of default but with a theoretical 100% recovery rate would arguably have a near zero risk premium.

**Figure 12. The risk premium is a function of the propensity and reliability of cash flows, the probability of default and recovery prospects, credit default spreads (CDS), and long term rating (LTR).**



The probability of default may depend on general economic conditions as well as on specific conditions of sectors and firms. Recovery rates may also vary according to macroeconomic conditions, debt type, seniority, and industry; and may have a negative relationship with default rates. The risk premium compensates for exposure to default risk, liquidity risk, political risk, conflict risk and possibly other non-diversifiable sources of risk (viewed against the backdrop of modern portfolio theory). Practically, the development of structures that create a certainty equivalent, increase the resilience of cash flows, and reduce variability and ultimately volatility, reduces the risk premium.

## Energy sharing and energy Infrastructure – the opportunity for cross-border collaboration, peacebuilding and energy resilience

Due to the distance between countries and the need to lay long cables, centralised models of energy can be compromised by conflict. Interconnectors offer a number of benefits and are a key source of flexibility to the electricity system. They are one of the few current technologies that can shift a large volume of electricity from where it is not needed to where it is. By doing this they have the potential to lower prices, improve the investment case for power stations, help meet carbon targets at lower cost, and improve security of supply. Interconnectors can be thought of as additional generation capacity and as power exporters. This is because they allow electricity to be imported at times of peak demand but can also sell surplus electricity abroad.

With respect to cross-border energy projects, regional political institutions play a critical role in coordinating the interests of member countries and keeping political conflicts to a minimum. Regional regulatory institutions are essential as well: they make a variety of agreements and harmonise market design and regulatory policies, regardless of the degree of power system integration. Regional market frameworks enable independent or external investment and organize cross-border power trade. Sound governance mechanisms of cross-border power systems can coordinate market development and long-term planning effectively. They can gradually make policy and regulator frameworks more coordinated and aligned. These are essential elements for creating a credible and predictable investment climate for infrastructure investors. How PEMs can support these governance mechanisms is an important consideration for financing enabling institutions that will lower risks and create additionality for energy projects.

Key benefits of energy sharing include:

- a.** Interconnection. Connecting electricity networks across national boundaries to share power with neighbours can lower costs. Power can be transported easily across national conflict boundaries. Supplying power can increase security for both sides and prevent conflict spilling over.
- b.** Power sharing helps to balance the system. Increasing connections to cheap, decentralised green power supplies can help to lower dependence on large scale centralised energy sources.
- c.** Storage. Technology is evolving very fast. Though difficult to achieve, parity of regulation can enable countries to manage exports/imports and regional development along internationally established borders at an agreed cost of levelized electricity.
- d.** Demand flexibility. Modern systems save consumers money and cut emissions without inconvenience. Governments can ensure benefits are achieved by improving regulation, informing the public of the benefits available, and piloting their own schemes.<sup>127</sup>

<sup>127</sup> National Infrastructure Commission (UK), 'Smart Power Report'. At: <https://nic.org.uk/studies-reports/smart-power/>.

---

## Relevant legal frameworks

### Introduction to private placement regulatory laws in the United States of America and Europe

Private placements are medium to long-term negotiated financings between listed or unlisted companies and a limited number of institutional investors (such as insurance companies, funds and asset managers). They are negotiated between the investors (through an arranger or not) and the borrowers.

In such transactions, risks that arise because the borrower may not have a rating (often the case) or because most private placement markets are essentially illiquid (though transferable) are counterbalanced by additional investor protections that exceed those customarily available on the international bond market (i.e. change of control clauses, events of default,<sup>128</sup> tax gross up, etc.).

The additional protections, inspired inter alia by practices developed in the US Private Placement

(USPP) market, mainly reflect investors' desire to have parity with other lenders to the borrower and to benefit from the same protections. Agreements often also include negative pledge provisions that cover all the indebtedness of the borrower (i.e., bank and note indebtedness), financial covenants (such as a leverage ratio, an interest cover ratio, and/or a gearing ratio), and possibly non-financial covenants (restricting the borrower's ability to dispose of assets or incur new debt). Protections are tailored to the type of transaction, the borrower's situation, and market conditions; the investors and the arranger make this analysis. Further, various private placement markets have developed robust best practices that arrangers and borrowers respect. These help to maintain market standards on the basis of rather compact documentation.

### Supporting legal frameworks

#### Europe

There are different types of private placements (PPs), including US PPs, Euro PPs and *Schuldschein* Loans (*Schuldscheindarlehen*<sup>129</sup>). Some can be listed on a regulated market or a multilateral trading facility if investors so require. Though historically the USPP market used to attract more attention for its role in corporate financing, private placements are increasingly seen as an attractive alternative financing source for corporate borrowers in Europe, where cross-border private placements in particular have increased in recent years. Several initiatives have facilitated this 'internationalisation' of the market:

- i. Publication in February 2015 (updated in October 2016) of the European Corporate Debt Private Placement Market Guide by the International Capital Market Association (ICMA).
- ii. Publication in September 2015 of the Capital Markets Union (CMU) action plan by the European Commission. This seeks, in particular, to make it easier for smaller companies to raise debt on the capital markets.
- iii. Publication in 2014 and 2016 of the *Schuldscheindarlehen* (LMA Product Guide) by the Loan Markets Association.

---

<sup>128</sup> An 'event of default' is a predefined circumstance that allows a lender to demand full repayment of an outstanding balance before it is due.

<sup>129</sup> Gabler Wirtschaftslexikon, '*Schuldscheindarlehen*'. At: <https://wirtschaftslexikon.gabler.de/definition/schuldscheindarlehen-46353>.

## United States: Rule 506 of Regulation D

Rule 506 of Regulation D provides two distinct exemptions from registration for companies when they offer and sell securities. Companies relying on the Rule 506 exemptions can raise an unlimited amount of money. Under Rule 506(b), a “safe harbor” under Section 4(a)(2) of the Securities Act, a company can be assured it is within the Section 4(a)(2) exemption by satisfying certain requirements, including the following:

- i.** The company cannot use general solicitation or advertising to market the securities.
- ii.** The company may sell its securities to an unlimited number of "accredited investors" and up to 35 other purchasers. All non-accredited investors, either alone or with a purchaser representative, must be ‘sophisticated’, meaning that they must have sufficient knowledge and experience in financial and business matters to be able to evaluate the merits and risks of the prospective investment.
- iii.** Companies must decide what information to give to accredited investors, so long as it does not violate the antifraud prohibitions of the federal securities laws. This means that any information a company provides to investors must be free of false or misleading statements. Similarly, a company should not exclude information whose omission will cause the information provided to investors to be false or misleading. Companies must disclose to non-accredited investors documents that are generally the same as those used in Regulation A or registered offerings, including financial statements, which in some cases may need

to be certified or audited by an accountant. If a company provides information to accredited investors, it must make this information available to non-accredited investors as well.

- iv.** The company must be available to answer questions by prospective purchasers.

Under Rule 506(c), a company can broadly solicit and generally advertise the offering and still be deemed to be in compliance with the exemption’s requirements if:

- 1.** The investors in the offering are all accredited investors; and the company takes reasonable steps to verify that the investors are accredited investors, which could include reviewing documentation, such as W-2s, tax returns, bank and brokerage statements, credit reports, etc.
- 2.** Purchasers of securities offered pursuant to Rule 506 receive "restricted" securities, meaning that the securities cannot be sold for at least six months or a year without registering them.
- 3.** Companies that comply with the requirements of Rule 506(b) or 506(c) do not have to register their offering of securities with the SEC, but they must file what is known as a "Form D" electronically with the SEC after they first sell their securities. Form D is a brief notice that includes the names and addresses of the company’s promoters, executive officers and directors, and some details about the offering, but contains little other information about the company.

# References

---

# References

1. African Business (2020), 'Financing Africa's energy transition'. <https://african.business/2020/08/energy-resources/financing-africas-energy-transition/>
2. Agence Française de Développement (AFD, 2018), 'Promoting Economic Revival for Microbusiness and Agriculture (Perma) in Nineveh Governorate'. <https://www.afd.fr/en/carte-des-projets/promoting-economic-revival-microbusiness-and-agriculture-perma-nineveh-governorate>
3. Allan, J. (2021), 'Renewable energy is fuelling a forgotten conflict in Africa's last colony', The Conversation. <https://theconversation.com/renewable-energy-is-fuelling-a-forgotten-conflict-in-africas-last-colony-170995>
4. Andriandrambo, N., David-Benz, H., and Rahelizatovo, N. (2017), 'Providing market information to small farmers in Madagascar. Challenging ICTs suitability', *Journées de Recherche en Sciences Sociales*, 11, pp. 13-14.
5. Ansfar, A. et al. (2014), 'Should we build more large dams? The actual costs of hydropower megaproject development', *Science Direct Energy Policy*. <https://www.sciencedirect.com/science/article/abs/pii/S0301421513010926>
6. Arce, M., Moran, R. (2020), 'Extractive Conflicts in the Developing World', *Journal of International Affairs*, Vol. 73, No. 2. <https://jia.sipa.columbia.edu/extractive-conflicts-developing-world>
7. Bartkus, V. O., Brooks, W., Kaboski, J., Pelnik, C. (2021), 'Big Fish in Thin Markets: Competing with the Middlemen to Increase Market Access in the Amazon', *National Bureau of Economic Research*, Working paper 29221, pp. 25-31. [Big Fish in Thin Markets: Competing with the Middlemen to Increase Market Access in the Amazon | NBER](https://www.nber.org/papers/w29221)
8. Bazillier, R., Girard, V. (2020), 'Gold mining in Burkina Faso: Who wins?', *VoxDev*. <https://voxdev.org/topic/firms-trade/gold-mining-burkina-faso-who-wins>
9. Belanger, C., Derenoncourt, G., Landry, C. (2020), 'State Fragility in Burkina Faso: Analysis and Policy Brief'. <https://reliefweb.int/sites/reliefweb.int/files/resources/Burkina-Faso-Fragility-Brief-2021.pdf>
10. Berman, N., Couttenier, M., Soubeyran, R. (2021), 'Fertile ground for conflict', *Journal of the European Economic Association*, Vol. 19, Issue 1, pp. 82-127. [Fertile Ground for Conflict | Journal of the European Economic Association | Oxford Academic \(oup.com\)](https://onlinelibrary.wiley.com/doi/10.1111/euea.12100)
11. Bernadaux, C. (2021), 'Agricultural technology in the Middle East: Sowing the seeds of the future', Middle East Institute. <https://www.mei.edu/publications/agricultural-technology-middle-east-sowing-seeds-future>
12. Bhamidipati, Hansen, et al (2022, forthcoming), 'Green Curses: Renewable energy and conflict in Africa, Background report for the Human Development Report 2022 and the Special Report on Human Security'.
13. Brück, T., d'Errico, M. (2019), 'Food security and violent conflict: Introduction to the special issue', *World Development*, issue 117, p. 168. [Food security and violent conflict: Introduction to the special issue \(gre.ac.uk\)](https://www.gre.ac.uk/research/food-security-and-violent-conflict)
14. Bukari, K., Kufour, P., Bukari, S. (2021), 'Chieftaincy conflicts in Ghana are mixed up with politics: what's at risk', The Conversation. <https://theconversation.com/chieftaincy-conflicts-in-ghana-are-mixed-up-with-politics-whats-at-risk-166602>
15. CGIAR Climate Change, Agriculture and Food Security (CCAFS) programme, 'Developing Climate-Smart Village Models in West Africa'. At: [Developing Climate-Smart Village models in West Africa \(cgiar.org\)](https://www.cgiar.org/locations/programmes/ccafs/).

16. Champain, P. (2020), 'Power, Peace, and Place: Why firms account for their actions: Multi-stakeholder voices and the Therma South story', International Alert Philippines, DMGENCO. [Power-Peace-and-Place-Why-firms-account-for-their-actions\\_2020.pdf \(international-alert.org\)](#)
17. Climate Bonds Initiative (2021), 'Green Bond Pricing in the Primary Market January - June 2021'. [Green Bond Pricing in the Primary Market H1 2021 | Climate Bonds Initiative](#)
18. Climate Bonds Initiative (2021), 'Improving risk-return profile: Increasing returns or reducing risks'.
19. CMS (2017), 'Private Placement Guide'. [CMS Private Placement Guide.pdf](#).
20. Credendo, 'Country risk Ghana'. <https://credendo.com/en/country-risk/ghana>
21. Economic Community of West African States, 'The West African Power Pool'. <https://www.ecowas.int/specialized-agencies/the-west-african-power-pool-wapp/>
22. Economist Intelligence Unit, Blue Peace Index. [Blue Peace Index | Economist Intelligence Unit \(eiu.com\)](#)
23. Edwards, I. (2018), 'The role of decentralized renewable energy in peacebuilding', Quaker UN Office. [Inputs from Quaker United Nations Office\\_Role.pdf \(unfccc.int\)](#)
24. Emanuel, J., et al (2021), 'Climate Adaptation Finance has a Blind Spot on Conflict and Fragility', Climate Home News, Climate Home. <https://www.climatechangenews.com/2021/11/05/climate-adaptation-finance-blind-spot-conflict-fragility/>
25. EnergyNet Videos (2019), 'aefTV 2019 Interview: H.E Hon. Bachir Isma-el Ouedraogo, Minister of Energy, Burkina Faso'. [https://www.youtube.com/watch?v=Kj01KX5\\_siM&ab\\_channel=EnergyNetVideos](https://www.youtube.com/watch?v=Kj01KX5_siM&ab_channel=EnergyNetVideos)
26. Energypedia (2020), 'Burkina Faso Energy Situation'. [https://energypedia.info/wiki/Burkina\\_Faso\\_Energy\\_Situation](https://energypedia.info/wiki/Burkina_Faso_Energy_Situation) (accessed 10 December 2021).
27. Environmental Justice Atlas, 'Mapping of environment-related conflicts around the globe'. <https://ejatlas.org/>
28. Equator Principles (2020), 'The Equator Principles'. [The Equator Principles\\_EP4\\_July2020 \(equator-principles.com\)](#)
29. EU Platform on Sustainable Finance (2021), 'Draft Report by Subgroup 4: Social Taxonomy'. [sf-draft-report-social-taxonomy-july2021\\_en.pdf \(europa.eu\)](#)
30. Food and Agriculture Organization (FAO, 2017), 'The State of Food Security and Nutrition'. <https://www.fao.org/state-of-food-security-nutrition/en/>
31. FAO (2021), 'Burkina Faso - Analysis of conflicts over the exploitation of natural resources: Summary'. <https://reliefweb.int/sites/reliefweb.int/files/resources/cb6023en.pdf>
32. FAO (2021), 'State of Food Security and Nutrition in the World'. <https://www.fao.org/state-of-food-security-nutrition/en/>
33. Gabler Wirtschaftslexikon, 'Schuldscheindarlehen'. <https://wirtschaftslexikon.gabler.de/definition/schuldscheindarlehen-46353>
34. Galtung, J. (1969), 'Violence, Peace, and Peace Research', *Journal of Peace Research*, Vol. 6, issue 3, p. 167-191. <http://www.jstor.org/stable/422690>
35. Gaspar, V., et al (2019), 'Fiscal policy and development: Human, social, and physical investments for the SDGs', International Monetary Fund. <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2019/01/18/Fiscal-Policy-and-Development-Human-Social-and-Physical-Investments-for-the-SDGs-46444>
36. Global Partnership for Effective Development Co-operation (2019), 'Kampala Principles: On Effective Private Sector Engagement in Development Co-operation'. <https://www.effectivecooperation.org/system/files/2019-07/Kampala%20Principles%20-%20final.pdf>
37. Holleman, C., Jackson, J., Sánchez, M., Vos, R. (eds, 2017), 'Sowing the seeds of peace for food security. Disentangling the nexus between conflict, food security and peace', FAO. [Sowing the seeds of peace for food security: Disentangling the nexus between conflict, food security and peace \(fao.org\)](#)

38. Ide, T., Detges, A. (2018), 'International Water Cooperation and Environmental Peacemaking', *Global Environmental Politics*, 18(4): 63–84. [International Water Cooperation and Environmental Peacemaking | Global Environmental Politics | MIT Press](#)
39. Inter-Agency Standing Committee (IASC, 2020), 'Exploring Peace within the Humanitarian-Development-Peace Nexus'. [Issue paper - Exploring peace within the Humanitarian-Development-Peace Nexus \(HDPN\).pdf \(interagencystandingcommittee.org\)](#)
40. International Capital Market Association (ICMA). [Social, Green and Sustainable Bond Principles](#)
41. International Capital Market Association, Market Data. [Market data » ICMA - International Capital Market Association \(icmagroup.org\)](#)
42. International Capital Market Association (2021), 'Regulatory Policy and Market Practice'. <https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/Secondary-Markets/bond-market-size>
43. International Capital Market Association (2021), 'Social Bond Principles: Voluntary Process Guidelines for Issuing Social Bonds'. [Social-Bond-Principles-June-2021-140621.pdf \(icmagroup.org\)](#)
44. International Crisis Group (2020), 'Burkina Faso: sortir de la spirale des violences'. <https://www.crisisgroup.org/fr/africa/sahel/burkina-faso/287-burkina-faso-sortir-de-la-spirale-des-violences>
45. International Energy Agency (IEA, 2021), 'Financing Clean Energy Transitions in Emerging and Developing Economies'. [Financing clean energy transitions in emerging and developing economies - Analysis - IEA](#)
46. International Energy Agency, IRENA, WHO, World Bank (2020), 'Tracking SDG 7 2020: The Energy Progress Report'. [Tracking SDG 7: The Energy Progress Report \(2020\) \(irena.org\)](#)
47. International Finance Corporation, [Performance Standards](#).
48. International Finance Corporation (IFC, 2013), 'IFC's Conflict Affected States in Africa Initiative: Final Report for CASA's First Cycle (2008-2013)'. [IFC+CASA+I+Final+Report.pdf](#)
49. International Finance Corporation (2021), 'Burkina Faso Could Boost Renewable Energy Mix with Battery Storage: IFC-supported Roadmap'. <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26664>
50. International Monetary Fund (2018), 'Burkina Faso Economic Development Documents'. <https://www.imf.org/~media/Files/Publications/CR/2018/cr1885.ashx>
51. Interpeace (2021), 'Making the Market for Peace, An Assessment of the opportunities to create a global peace financing market'.
52. Jagwe, N. (2011), 'The impact of transaction costs on the participation of smallholder farmers and intermediaries in the banana markets of Burundi, Democratic Republic of Congo and Rwanda', Doctoral dissertation, University of Pretoria.
53. Karl, T. (1997), 'The Paradox of Plenty: Oil Booms and Petro-States', Studies in International Political Economy, University of California Press.
54. Lanzano, C., di Balme, L. (2021), 'Who owns the mud? Valuable leftovers, sociotechnical innovation and changing relations of production in artisanal gold mining (Burkina Faso)', *Journal of Agrarian Change*, Vol. 21, Issue 3. [Who owns the mud? Valuable leftovers, sociotechnical innovation and changing relations of production in artisanal gold mining \(Burkina Faso\) - Lanzano - 2021 - Journal of Agrarian Change - Wiley Online Library](#)
55. Leslie, J. (2018), 'After a Long Boom, an Uncertain Future for Big Dam Projects', Yale Environment. <https://e360.yale.edu/features/after-a-long-boom-an-uncertain-future-for-big-dam-projects>
56. Maltais, A., Nykvist, B. (2020), 'Understanding the role of green bonds in advancing sustainability', *Journal of Sustainable Finance & Investment*, pp. 1-20. <https://www.tandfonline.com/doi/pdf/10.1080/20430795.2020.1724864>
57. Marijnen, E., Schouten, P., 'Electrifying the green peace? Electrification, conservation and conflict in Eastern Congo', Taylor and Francis Online, 2019. [Full article: Electrifying the green peace? Electrification, conservation and conflict in Eastern Congo \(tandfonline.com\)](#)



78. Sacchetto, C., Stern, N., Taylor, C. (2020), 'Priorities for renewable energy investment in fragile states', International Growth Center. [Sacchetto-Stern-Taylor-2020-Policy-Brief.pdf \(theigc.org\)](#)
79. Shell Foundation, Rockefeller Foundation (2021), 'Unlocking Climate Finance to Accelerate Energy Access in Africa'. [PowerPoint Presentation \(shellfoundation.org\)](#)
80. Smallholder and Agri-SME Finance and Investment Network (SAFIN, 2021), 'Deploying blended finance to mobilize investment at scale in food and agriculture'. <https://www.safinetwork.org/safinresources/Blended-finance-for-agriculture>
81. Suter, M. (2018), 'An update on Yemen's water crisis and the weaponization of water', Atlantic Council. <https://www.atlanticcouncil.org/blogs/menasource/an-update-on-yemen-s-water-crisis-and-the-weaponization-of-water/>
82. United Nations (2020), 'Pathways to sustaining peace at the Food and Agriculture Organization of the United Nations (FAO)'. [https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/fao\\_-\\_peacebuilding\\_and\\_sustaining\\_peace\\_thematic\\_paper\\_1.pdf](https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/fao_-_peacebuilding_and_sustaining_peace_thematic_paper_1.pdf)
83. UN Conference on Trade and Development (UNCTAD, 2021), 'World Investment Report 2021, Investing in Sustainable Recovery'. [https://unctad.org/system/files/official-document/wir2021\\_en.pdf](https://unctad.org/system/files/official-document/wir2021_en.pdf)
84. UNDP SDG Investor Platform, 'Market Intelligence'. <https://sdginvestorplatform.undp.org/market-intelligence>
85. UN Economic Commission for Europe (UNECE, 2018), 'Background Document: High-Level Workshop on Financing Transboundary Basin Development'. [https://unece.org/DAM/env/documents/2018/WAT/10Oct\\_9\\_HLWS\\_Astana/Final\\_Background\\_Document\\_Workshop\\_on\\_FinancingTBCoop\\_15\\_11\\_2018.pdf](https://unece.org/DAM/env/documents/2018/WAT/10Oct_9_HLWS_Astana/Final_Background_Document_Workshop_on_FinancingTBCoop_15_11_2018.pdf)
86. UN Environment Programme (UNEP, 2015), 'Burkina Faso Energy Profile'. [https://we-docs.unep.org/bitstream/handle/20.500.11822/20481/Energy\\_profile\\_Burkina.pdf?sequence=1&isAllowed=](https://we-docs.unep.org/bitstream/handle/20.500.11822/20481/Energy_profile_Burkina.pdf?sequence=1&isAllowed=)
87. UNESCO World Water Assessment Programme (2021), 'The United Nations world water development report 2021: valuing water'. [World Water Assessment Programme \(unesco.org\)](#)
88. UN General Assembly resolution 70/262, A/RES/70/262 (2016).
89. UN General Assembly resolution 72/276, A/RES/72/276 (2018).
90. UN Global Compact. [UN Global Compact](#)
91. UNICEF (2016), 'Conflict Sensitivity and Peacebuilding: Programming Guide'. [Programming-Guide-Conflict-Sensitivity-and-Peacebuilding.pdf \(unicef.org\)](#)
92. Unicef (2016), 'Strategy for Water, Sanitation and Hygiene 2016-2030'. [UNICEF, '-Strategy -for Water, Sanitation and Hygiene -WASH-2016-2030.pdf'](#)
93. UNICEF (2019), 'Fast Facts: WASH in conflict'. <https://www.unicef.org/stories/fast-facts-water-sanitation-hygiene-conflict>
94. UNICEF (2021), 'Progress on household drinking water, sanitation and hygiene, 2000-2020'. <https://data.unicef.org/resources/progress-on-household-drinking-water-sanitation-and-hygiene-2000-2020/>
95. UN Peacemaker (2000), 'Security Council Resolution on women and peace and security'.
96. UN Principles for Responsible Investment (2021), 'Annual Report 2020'. [download \(unpri.org\)](#)
97. UN Security Council resolution 1325, S/RES/1325 (2000).
98. UN Security Council resolution 2250, S/RES/2250 (2015).
99. UN Security Council resolution 2282, S/RES/2282 (2016).
100. UN Security Council resolution 2413, S/RES/2413 (2018).
101. UN Water (2021), 'Summary Progress Update 2021: SDG 6 – water and sanitation for all'. <https://www.unwater.org/publications/summary-progress-update-2021-sdg-6-water-and-sanitation-for-all/>
102. UN Water (2021), 'Transboundary Waters'. <https://www.unwater.org/water-facts/transboundary-waters/>

103. United States Agency for International Development (USAID, 2018), 'Fragility and climate risks in Nigeria'. [Final\\_USAID\\_Fragility\\_and\\_Climate\\_Nigeria\\_brief\\_September\\_2018](#)
104. USAID (2018), 'The intersection of global fragility and climate risks'. [Final\\_Fragility\\_and\\_Climate\\_Global\\_TechnicalReport\\_September\\_2018 \(climatelinks.org\)](#)
105. USAID (2019), 'Burkina Faso: Power Africa Fact Sheet'. <https://www.usaid.gov/powerafrica/burkina-faso>
106. United States Department of Labor, Employee Benefits Security Administration (2021), 'Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights'. [Federal Register :: Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights](#)
107. Vakulchuk, R., et al. (2020), 'Renewable energy and geopolitics: A review', *Science Direct Renewable and Sustainable Energy Reviews*, Vol 122. [Renewable energy and geopolitics: A review - ScienceDirect](#)
108. Waddington, H. et al (2019), '[Does incorporating participation and accountability improve development outcomes? Meta-analysis and framework synthesis](#)', London: International Initiative for Impact Evaluation, systematic review 3.
109. World Bank (2013), 'Toward a Sustainable Energy Future for All: Directions for World Bank Group's Energy Sector'. [World Bank Document](#)
110. World Bank (2020), 'FY20 List of Fragile and Conflict-affected Situations'. [FCSFY20.pdf \(world-bank.org\)](#)
111. World Bank Data (2018), 'Rural Population (% of total population) – Fragile and conflict affected situations'. [https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=F1&name\\_desc=false](https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=F1&name_desc=false)
112. World Bank Data (2019), 'Prevalence of severe food insecurity in the population (%)'. [https://data.worldbank.org/indicator/SN.ITK.SVFI.ZS?most\\_recent\\_value\\_desc=true](https://data.worldbank.org/indicator/SN.ITK.SVFI.ZS?most_recent_value_desc=true)
113. World Bank Data (2021), 'Employment in agriculture (% of total employment) (modelled ILO estimate) - Lower middle income, low income, fragile and conflict affected situations'. [https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=XN-XM-F1&name\\_desc=false](https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=XN-XM-F1&name_desc=false)
114. World Economic Forum, Deloitte (2021), 'World Economic Forum Regional Action Group for Africa: Financing the Future of Energy'. [World Economic Forum Regional Action Group for Africa Financing the Future of Energy | World Economic Forum \(weforum.org\)](#)
115. World Meteorological Organization (2021), 'State of the Global Climate 2021: WMO Provisional Report'. [State of the Global Climate 2021 | E-Library \(wmo.int\)](#)
116. Zurayk, R, 'Use your loaf: why food prices were crucial in the Arab Spring', *The Guardian*, 11 May 2011. <https://www.theguardian.com/lifeandstyle/2011/jul/17/bread-food-arab-spring>



**Interpeace  
Headquarters**

2E Chemin Eugène-Rigot  
1202 Geneva  
Switzerland

[info@interpeace.org](mailto:info@interpeace.org)  
[www.interpeace.org](http://www.interpeace.org)



**In partnership with the United Nations**