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Aligning Sustainable Finance and Fintech to Promote an Integrated Approach to Refugee Finance

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ABSTRACT

The paper aims to assess the global landscape of refugee finance with an overview of global refugee-related financing mechanisms and instruments. Despite the growing refugee population worldwide, most refugee financing mechanisms are characterized by their post hoc, grant-based, small-scale, short-term, and unpredictable nature. This study will analyze the quantum of refugee finance supplied by different donors and intermediary types, the instruments through which they deploy refugee finance, and to where this financing is directed. It will then evaluate their effectiveness in addressing refugee financial inclusion and empowerment. The paper finally suggests alternative instruments and financing mechanisms leveraging Islamic finance, sustainable finance, and fintech. Two key mechanisms are proposed: a Refugee Empowerment *Sukuk* and a blended finance structure adopting a results-based financing approach. The study recommends developing a proactive approach using event-based financing with early warning triggers, leveraging fintech solutions for traceability and efficiency, and scaling up result-based financing in social impact and humanitarian financing.

1 | Introduction

Despite the fact that human well-being and population development are key considerations in the United Nations Sustainable Development Goals (SDGs) agenda, many national strategies fall short from achieving their objectives as they do not properly target all the segments of the population. Among the population segments that face critical challenges with regards to sustainable development is the one which includes refugees. In fact, according to the Office of the United Nations High Commissioner for Refugees (UNHCR), there are now almost 70 million forcibly displaced people worldwide, around 1% of the world's population. Fifty-seven percent of global refugees come from three different countries. These are Syria (6.3 million), Afghanistan (2.6 million), and South Sudan (2.4 million). In addition, according to the UNHCR, there are 5.6 million Palestinian refugees. These numbers are expected to grow given the global political and economic situation, coupled with the pressures of conflict and climate change.

The refugee economy is growing in size and impact. As a result, it represents both an opportunity and a challenge for national and global economies. The challenges mainly arise from the ability to integrate it in national development plans and economies while the opportunity comes from the long-term economic benefits it provides.

The refugee population faces several development challenges such as poverty, food security, access to education, access to health, and access to finance, all of which require dedicated financing mechanisms and instruments to cater to their specific needs and status. However, most of the refugee financing mechanisms are characterized by their post hoc, grant-based, small-size, short-term, unpredictable nature, in addition to their reliance on the discretionary contributions of a small number of governments, which limits their impact and effectiveness in promoting the beneficiaries' financial health and well-being. In 2019, for example, the total required for just the appeals for global Syrian refugee response was US\$5.5 billion, over a fifth of global

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Policy Implications

- Implement proactive, event-based financing using conflict early warning triggers for timely refugee support.
- This approach will enable quick mobilization and allocation of resources, enhancing preparedness in managing refugee crises.
- Leverage fintech solutions to enhance traceability and efficiency in refugee finance allocation.
- Digital identities, alternative credit scoring models, and blockchain-based financing can pave the way for more effective and transparent funding mechanisms targeting displaced people.
- Adopt an integrated approach to refugee finance, which addresses all displacement phases from predisplacement to integration.

humanitarian requirements—halfway through the year, it was only 16% funded.

The economic impact of the refugees is not only affecting on the refugees or their homelands and countries of origin but also on the host countries. Among the countries suffering from massive population displacement are Muslim countries. At the same time, most of these countries have established Islamic financial activities that are based on the ethical principles and objectives of *Shari'ah* (the *maqasid*) in addition to national commitments to promote sustainable development, mitigate climate change, and promote fintech. Therefore, how is the growing awareness about the SDGs, Islamic finance and fintech helping to address the refugee crisis? And how can an integrated approach to refugee finance support refugees' financial well-being and integration in host countries?

The paper aims to assess the global landscape of refugee finance with an overview of global refugee-related financing mechanisms and instruments. To do so, it will analyze the quantum of refugee finance supplied by different donors and intermediary types, the instruments through which they deploy refugee finance, and where this financing is directed. The objective is to identify financial support mechanisms and instruments targeting refugees to assess their inclusiveness, resilience support, and effectiveness in host countries integration. In doing so, it will first identify global refugee financing mechanisms and instruments and then assess their scale, type, and impact. It will then evaluate their effectiveness in addressing refugee financial inclusion and empowerment. Finally, it will suggest alternative instruments and financing mechanisms leveraging on Islamic finance, sustainable finance, and fintech. The paper will mainly focus on the financing mechanisms targeting displaced people from conflicts in the host countries to ensure their integration into the host country's economy in an inclusive way.

This paper uses a qualitative methodology to establish the initial understanding in order to develop a landscape for global refugee financing. The purpose is to understand their scope,

structure, initiating organizations, impact, limitations, and effectiveness in promoting refugees' financial well-being and integration in host countries. The implementation of the content analysis approach in our study identifies a set of key instruments and stakeholders in the global refugee finance landscape. A set of additional mechanisms aligning sustainability, Islamic ethics, and fintech to promote refugees' financial well-being and integration in the host countries is then suggested. On the other hand, exploratory research will attempt to identify how innovative mechanisms such as result-based financing and blended finance can support national development plans in addressing the refugee crisis.

1.1 | The Refugee Terminology

The term refugee commonly refers to individuals who are forced to leave their home countries due to reasons such as persecution, war, violence, or human rights violations. However, not all individuals falling under this broad definition are legally recognized as refugees or granted the same rights and protections. Different sources employ varying criteria and terminology to categorize and differentiate among different groups of displaced individuals. Such distinctions can significantly affect their access to asylum, assistance, and durable solutions.

The primary source of refugee terminology is the 1951 Convention relating to the Status of Refugees and its 1967 Protocol, which serve as key international legal instruments defining the status, rights, and obligations of refugees. According to Article 1A (2) of the 1951 Convention, a refugee is an individual who

owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it (OHCHR 1951).

1.2 | Multi-Stage Refugee Displacement Analysis

Refugee displacement, settlement, and integration is a complex and interconnected process that involves the gradual and reciprocal merging of various legal, socioeconomic, and cultural aspects. Conventionally, the refugee system was established to offer temporary assistance until lasting solutions to forced displacement could be achieved. Consequently, refugees were generally not afforded resources or support for long-term settlement, as they were expected to depart once a permanent resolution to their predicament was secured (Hynie 2018). However, in practice, the displacement process is less temporary and requires long-term and durable

solutions; an approach that necessitates a multi-stage analysis of refugee displacement, previously discussed by Kunz (1973), Henry (2021), Parrish (2018), and Boyle, Halfacree, and Robinson (1998).

The objective of this study is to evaluate the financial necessities of refugees across five phases of displacement, namely pre-displacement, acute displacement, arrival, settlement, and integration. These stages correspond to distinct circumstances and obstacles that refugees encounter prior to, during, and after their compelled migration caused by conflict. Figure 1 assesses the refugee financing needs based on their displacement phase. Here, the predisplacement phase is the phase before people are forced to flee their homes and cross the borders due to conflict. It is, however, important to note that individuals in this stage are not yet considered refugees as they are still within the borders of their home countries. The acute displacement phase pertains to the period between when they cross the borders of their country of origin and arrive in a host nation and therefore, require urgent protection and humanitarian aid. The arrival phase is the third stage of the refugee experience, during which refugees reach a host country or region to seek protection and aid. The settlement phase is the fourth stage of the refugee experience and is characterized by the refugees' settlement in a host country or region, where they seek to integrate into the society. Finally, the integration phase is characterized by the refugees' integration into a host country or region, where they seek to achieve full and equal participation in the society.

1.3 | Sustainable and Islamic Finance in Humanitarian Contexts

Sustainable finance is a broad term that covers various aspects of how finance and investment can contribute to environmental, social, and governance (ESG) goals. Generally, sustainable finance entails the incorporation of ESG criteria into the investment decisions in the financial sector, thereby facilitating more durable investments in economic activities and projects that

adhere to sustainability principles (European Commission 2021). However, due to the definition's mere focus on ESG factors and restrictive nature, Kumar et al. (2022) suggest that sustainable finance should include all activities and factors that would make finance sustainable and support sustainability, aligning various goals by different stakeholders, such as the European Commission's ESG and the United Nations' SDGs.

The humanitarian ecosystem faces increasing challenges as the number of people living in unstable and risky situations around the world exceeds 500 million, and the population of forcibly displaced people has risen by more than 100% since 2012, calling for more innovation in the field of sustainable finance and collaboration with the private sector to create new ways of financing and delivering humanitarian assistance (Young, Beal, and Avsar 2022). It is generally suggested that many innovative and sustainable financing instruments—including Refugee Health Insurance, Social Impact Bonds, Blended Finance, Catastrophe Bonds, and other innovative financing models—can be utilized to provide financing to refugees, especially in health financing contexts (Spiegel et al. 2020).

For example, Unal, Mahomed, and Mohamad (2021) examine pay-for-success social impact bonds (SIBs) as a viable and politically acceptable option for financing refugees compared to traditional methods. SIBs use key performance indicators (KPIs) to measure social impact, but their efficiency in areas such as collaboration, prevention, and innovation is contrasted with their nontradability, which incurs high monitoring and tracking costs, and their difficulty in accurately measuring social impact.

Meanwhile, in humanitarian contexts, the role of Islamic social finance cannot be neglected. Islamic social finance refers to a specific branch of Islamic finance that concentrates on delivering financial solutions and offerings with the aim of promoting social and humanitarian objectives. These objectives encompass endeavors such as reducing poverty, aiding in times of disaster, supporting education and healthcare initiatives, as well as safeguarding the environment. To

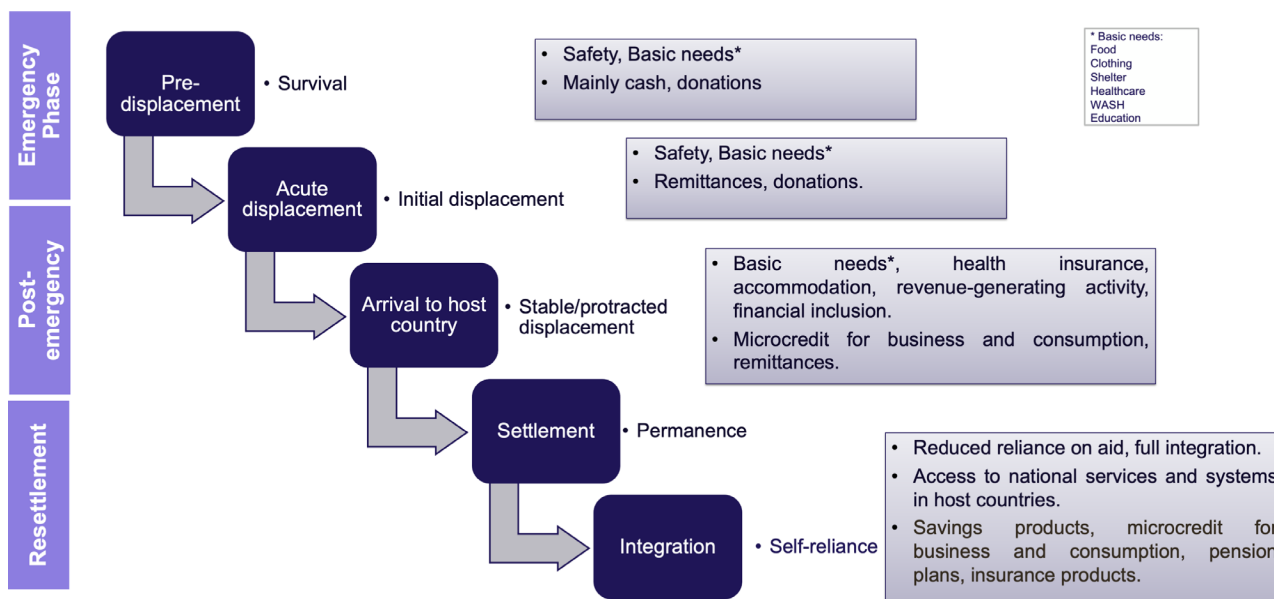


FIGURE 1 | Assessing refugee financing needs based on their displacement phase.

accomplish these goals, Islamic social finance employs various instruments like *Zakat* (mandatory alms-giving), *Waqf* (endowments), and *Sadaqah* (voluntary charitable donations) to gather resources and allocate them to individuals or communities in need. Social impact is embedded in the concept of Islamic social finance, as it aims to create positive change and value for society through ethical and responsible financial practices. However, the sector suffers from lack of standard impact assessment and management practices in the context of refugee financing.

2 | The Global Landscape of Refugee Finance

Refugee situations are often prolonged, and as such, they require a comprehensive approach that encompasses humanitarian aid, development, and peace interventions from the beginning of a crisis. This combination of interventions can make it challenging to estimate the total amount of funding dedicated to this area globally. Although there are no worldwide estimates for the total funding allocated toward refugee needs and expenses, data from international coordinated appeals can give some insight into the general trend of overall refugee needs. It is worth noting, however, that the total amount of international financing provided to refugees is much greater than what is committed through such coordinated appeals. This section aims to review the current refugee finance landscape (Figure 2) by looking at the key sources, instruments, uses, and the displacement phase they target.

Multilateral institutions and philanthropy continue to deliver the majority of refugee finance, with the largest share targeting health and food security, followed by housing, education, entrepreneurship, and financial inclusion. The financial instruments used can be classified into five key categories. First, fixed income instruments which include social impact bonds, refugee

impact bonds, social inclusion bonds and development impact bonds; second, social finance instruments such as *zakat*, *waqf*, microfinance, social impact investing, and philanthropy; third, blended finance that comprises equity/quasi-equity, loans and guarantees; fourth, multilateral financing that consists of concessional loans, official development assistance (ODA), grant facilities, cash-based interventions, and guarantees; and fifth, fintech-based solutions such as blockchain-based financing and crowdfunding. The following section will discuss some of these instruments in the context of the case studies analyzed.

2.1 | Donations, Grants, and Host Government Budgets

As of 2022, there was a significant disparity between the funding available for displacement humanitarian aid and the actual needs, with a record-breaking difference of 23 billion USD—the largest ever observed and approximately 6 billion USD more than the previous year. This, combined with the continuous disparity between pledges and actual donations, is expected to widen in the coming years as the number of displaced individuals increases, with low to middle-income countries continuing to bear the burden of hosting the majority of the world’s displaced population (DRC 2023). This highlights the urgent need to estimate and analyze the trends of different financing mechanisms that are in place to support refugees in order to bridge the significant gap between funding available and actual needs.

Donations and grants play a critical role in supporting refugees throughout their journey and have been continually used to provide a variety of essential services. During the predisplacement stage, community-based donations can be used to fund programs that help future refugees prepare for their journey, such as providing them with information about their destination

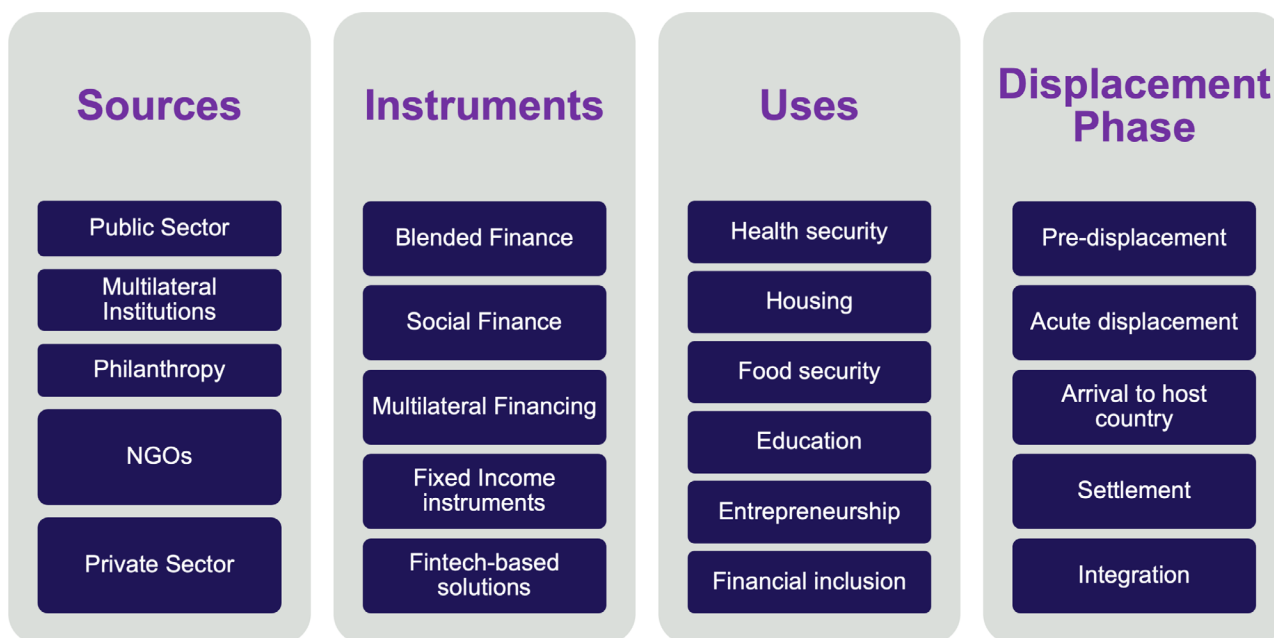


FIGURE 2 | The global landscape of refugee finance.

country, language training, and psychosocial support. In the acute displacement phase, donations can be used to provide life-saving assistance such as food, water, shelter, protection, and medical care to refugees who are still in their home countries or on the move. Upon arrival, donations can be used to support emergency aid efforts in host countries. These include providing temporary shelter, food, and medical care. Later, during the settlement stage, such funds are used to support longer-term programs aimed at helping refugees rebuild their lives, such as providing them with access to education, healthcare, and employment opportunities. Finally, during the integration phase, donations, and grants facilitate refugees' integration into their new communities, such as providing them with language classes, job training, and other support services.

Overall, data from Refugee Funding Tracker (2023) on donations and grants channeled toward five most affected regions of Afghanistan, DRC, Sudan, Syria, and Ukraine in 2022 show that while most grants are directed toward unspecified multi-sector uses, food security, education, protection, and basic needs have received the most attention by international donor organizations (Figure 3).

Interestingly, while most specified (nonmulti-sector) funding for the Afghan situation is directed toward health and nutrition and education, the trend changes toward protection, education, and food security for the Syrian situation. Whereas grants directed to Ukrainian situation are surprisingly highly aggregated under the multi-sector umbrella, funds allocated to Sudanese situation are directed toward food security, health and nutrition, and protection. This highlights the various requirements of refugees based on the conflicted area they have been fleeing from. Also, Figure 4 shows that conditions in the host country as well contribute to the funds allocated to each sector. For instance, while most funds channeled to Lebanon for the Syrian situation are directed toward food security and education, those of Turkey and Jordan are directed toward education and protection, respectively.

2.2 | Cash-Based Interventions

A cash-based intervention (CBI) refers to an aid action that involves the provision of cash or vouchers to individuals or groups of refugees and other individuals of concern, which can be used to acquire necessary goods or services. These cash interventions are directly channeled toward the refugees through collaborative organizations—for example, UNHCR—and are often financed through grants, collaborative efforts, and donations. UNHCR provided \$668 million of aid to over 9.3 million people in more than 100 countries in 2021, including countries facing difficult emergencies such as Afghanistan, the Democratic Republic of Congo, and Yemen (USA for UNHCR 2022). This value increase to \$977–10 million people in 2022 (UNHCR 2023). Refugees receiving Multi-Purpose Cash Interventions (MPCI) have the power to make decisions on how to fulfill their fundamental requirements. Due to this inherent feature, the sectorial breakdown of CBI in 2021 in Figure 5, shows multiple allocations for the same program.

CBIs can be utilized in a variety of contexts. For example, in terms of livelihoods, UNHCR utilized CBIs to assist the most vulnerable Venezuelan refugees and asylum seekers in Brazil through short-term cash grants to cover basic necessities, provision of transportation for job interviews, social assistance, Portuguese language classes, and professional training (UNHCR 2022). In terms of water, sanitation and hygiene (WASH), UNHCR's implementation of CBI in Kenya for latrine construction has allowed refugees and other vulnerable individuals to participate in the construction process. This has led to a greater sense of productivity during construction, maintenance, and usage and has resulted in increased latrine construction within a shorter period of time than through direct construction or in-kind support. Additionally, this approach has contributed to improved hygiene outcomes, including a reduced risk of cholera outbreaks and other water-borne diseases (UNHCR 2022).

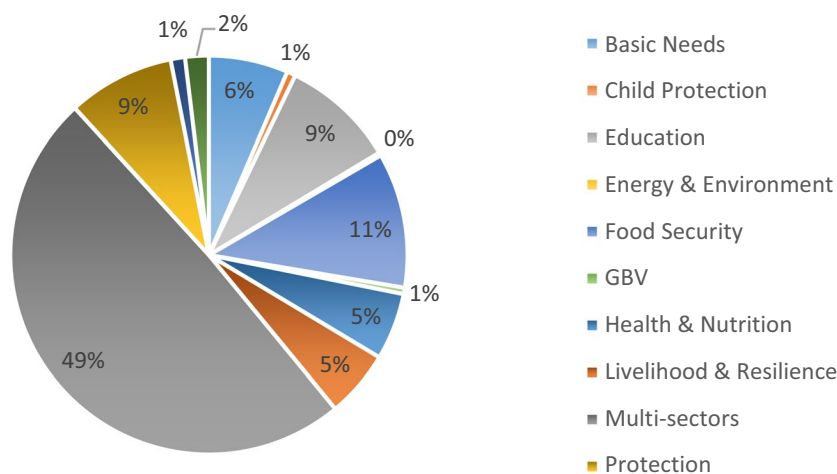


FIGURE 3 | Total grants and funds received for five major conflict situations based on sector.

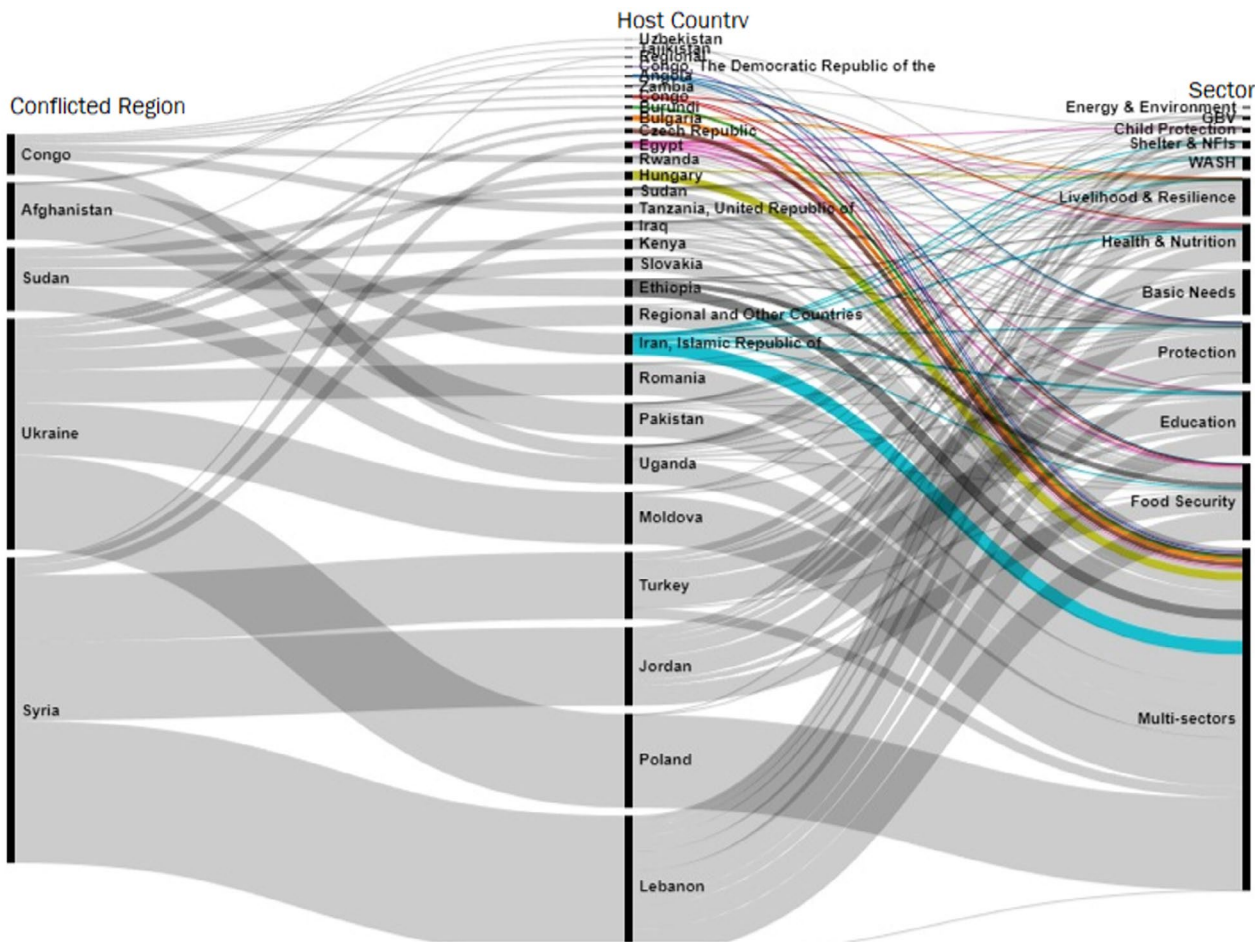


FIGURE 4 | Channelling of funds based on conflicted region, host country, and sector.

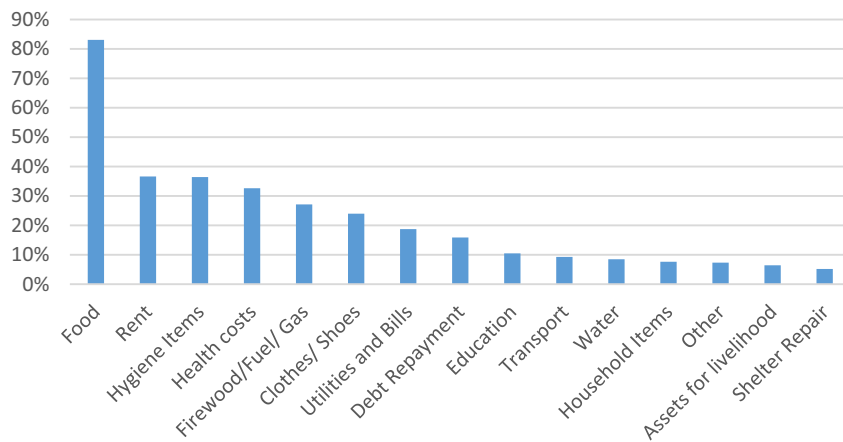


FIGURE 5 | Sectorial allocation of cash-based interventions. (CBI)

By providing financial assistance directly to refugees, CBI has proven effective in minimizing harmful coping mechanisms such as taking children out of school, child marriage, child labor, begging, and other survival tactics. Additionally, CBI aids refugees to fulfil their basic needs such as paying for rent, utilities, school fees, and other essential expenses (3RP 2022). UNHCR has been utilizing cash-based interventions in Jordan for many years to offer aid to refugees in a respectful manner. By utilizing digital technologies and digital identity initiatives, refugees can

now obtain essential assistance that enables them to be part of the local economy and have the autonomy to determine their spending priorities.

2.3 | Concessional Allocations

Low- and middle-income countries still bear the primary responsibility for hosting displaced individuals, but the

percentage of displaced persons from the 26 focus countries residing in these nations has decreased from 49% in 2021 to 43% in 2022 (DRC 2023). This decrease can be attributed to the Ukraine crisis, which has led to the majority of displacement to high-income countries in Europe, resulting in a spike in displaced individuals residing in high-income countries from 6% to 10% in 2022.

Multilateral Development Banks (MDBs) have the capacity to provide loans and concessional loans to middle-income government clients as part of their fixed country allocations. However, most host governments are hesitant to borrow on nonconcessional terms or use limited concessional financing or grant allocations to support nonnationals (Kibuka-Musoke and Sarzin 2021). As a result, the ability of MDBs to provide assistance to refugees has been limited.

To extend operations in forced displacement situations, most MDB members have contributed funds for such circumstances through existing financing instruments, such as Grant Facilities or fragility and resilience-focused financial tools. For example, the African Development Bank's Transition Support Facility (TSF) dispersed funds for displacement scenarios in Africa's transition states, as well. Meanwhile, just a few MDBs, such as the World Bank, have created dedicated financial instruments to support countries hosting refugees. They have, so far, helped 18 countries across 63 operations in 14 different global practices, using a combination of loans and grants for low- and middle-income refugee-hosting governments (UNHCR 2021). Because only a limited number of MDBs have designated concessional loans specifically for refugee support, it is difficult to determine the total amount of concessional loans provided for refugees and their allocation.

2.4 | Microfinance Mechanisms

Microfinance institutions mainly cover various medium- to long-term refugee needs related to income generation and financial management, during the settlement and integration phases of displacement. They can play a significant role in building refugee resilience, improving their living conditions, and enhancing their ability to cope with shocks and emergencies. Additionally, microloans can boost their self-esteem, empowerment, and integration into society and promote social cohesion between refugees and host communities by fostering mutual trust and cooperation.

The American Refugee Committee (ARC) provided successful microfinance and microenterprise development services to Sierra Leonean refugees in Guinea in the early 2000s, with an arrears rate of less than 3%. The organization also implemented a similar program in Sierra Leone, serving returning refugees, internally displaced people, and other community entrepreneurs, with an arrears rate of less than 1%. ARC's Refuge to Return certificate system provided preferential access to credit for refugees who paid back their loans (Nourse n.d.).

Kiva is a crowdfunding platform that supports equitable financial assets for social good. Since 2016, Kiva has facilitated

over \$20 million in loans to refugees worldwide. The platform connects internet lenders with local finance institutions, who then provide loans to local refugees. By taking on the risk of default, Kiva provides concessional capital to these institutions and helps them pilot projects that support refugee investment. Despite perceived risks, Kiva (2021) has found that refugees repay their loans at the same rate as nonrefugees.

In addition, microfinance groups led by refugees have developed a loan structure that is successful for fellow refugees, resulting in low default rates. This success is attributed to the strong trust among group members. These groups serve vulnerable populations, including unregistered refugees, single mothers, women, and the very poor, and thus play an essential role in humanitarian efforts. However, despite providing a crucial source of business capital, refugee-led microfinance groups face challenges in securing large amounts of capital to loan to their members, and lack resources to provide comprehensive business, livelihood, and financial literacy training (Easton-Calabria and Hakiza 2020).

2.5 | Social/Development Impact Bonds

Several organizations in the humanitarian and development sectors have considered employing social impact bonds to finance refugee needs. Social impact bonds are contracts that focus on achieving specific outcomes and utilize private funding from social investors to provide the initial capital necessary for a service provider to implement a program aimed at producing measurable results for a particular population. The bonds' efficiency in areas such as collaboration, prevention, and innovation is contrasted with their nontradability, which incurs high monitoring and tracking costs, and their difficulty in accurately measuring social impact.

Social impact bonds can cover various types of refugee needs, depending on the context and the objectives of the program. However, they are more utilized in programs targeting medium- to long-term requirements of refugees. For example, the KOTO social impact bond was launched in 2017 by the Finnish Ministry of Economic Affairs and Employment to help migrants integrate into Finnish society by providing employment opportunities. The program offered vocational and language training in industries with labor shortages, such as manufacturing, construction, trade, and services, with the aim of providing jobs for 2500 migrants over 3 years. The program was composed of three modules that covered various aspects of career development and training, with training periods ranging from 30 days to 3 years (GO Lab 2022).

The Council of Europe Development Bank (CEB) launched a Social Inclusion Bond in 2022 to assist member states in addressing the social crisis caused by the conflict in Ukraine and to support millions of refugees in search of safety. The SIB was a €1 billion 7-year bond, which member countries of CEB used to meet the long-term needs of refugees and their host communities. The CEB has already given grants to aid its members in meeting the immediate requirements of Ukrainian refugees, such as housing, transportation, food, and medical care. The bond's proceeds will be utilized to fund

projects in various sectors, including social housing, education and vocational training, health and social care, and support for MSMEs, which will create and preserve jobs. Within a year, the CEB will publish an impact report. The bond has attracted investments from Credit Agricole Group and AG2R LA MONDIALE (CEB 2022).

Development Impact Bonds (DIBs) arose as a result of the success of Social Impact Bonds and the belief that capital that is willing to take on risk could enhance innovation and effectiveness in development programs that are reliant on grants. They are one of the financial instruments that developed in response to the United Nations' Sustainable Development Goals (SDGs) and the recognition that conventional public donor funding is inadequate to meet them (RIB 2023). Similar to social impact bonds, development impact bonds tend to be more utilized in addressing the refugees' long-term needs—that is, education, shelter, resilience, and employment.

In 2020, KOIS, a Brussels-based blended finance advisory firm, launched the Refugee Livelihoods Development Impact Bond to support Syrian refugees and host communities in Jordan and Lebanon. The bond aimed to finance training programs for the creation of small businesses and jobs for 11,000 beneficiaries over 3 years. If the programs achieve their objectives, social investors can receive up to 8% IRR, and 5000–6000 sustainable businesses and jobs will be created. The bond was expected to lead to a 22% increase in household spending on essential needs like food, education, and health care. The selected NGOs, Near East Foundation, and SPARK, were appointed for implementing the training programs (de Borchgrave 2020).

In September 2021, a new Development Impact Bond (DIB) was launched by a group of organizations, including the IKEA Foundation, Novo Nordisk Foundation, Norad, the U.S. Development Finance Corporation (DFC), Ferd, and KOIS, to fund a micro-enterprise creation program in Jordan and Lebanon. The program supports refugees and vulnerable host communities to recover their livelihoods and build resilience through vocational, entrepreneurship, and resilience-building training. The DFC and Ferd provide a 4-year results-based risk investment, whereas the IKEA Foundation, Novo Nordisk Foundation, and Norad support 80% of program costs if the desired results are not achieved. The Near East Foundation (NEF) delivers the program. Convergence supported the KOIS design stage grant funding for the Refugee Impact Bond through its Global Emerging Markets Design Funding Window (Convergence 2021).

2.6 | Blended Finance

Blended finance mechanisms can be applied to address diverse categories of refugee requirements, depending on the circumstances and the goals of the initiative, as well as the specific conditions and needs of the refugees. Blended finance involves the strategic use of public capital from sources such as official development assistance or funding from development financial institutions, combined with private capital, to attract investment in developing nations. Conventionally, these mechanisms can address various refugee needs that are medium- to long-term,

and are relevant, scalable, and sustainable—i.e., shelter, infrastructure, resilience, education, and employment. However, the structure through which blended finance mechanisms are applied to address refugee needs varies depending on the impacts required and the actors involved.

The Netherlands and IFC formed a partnership in 2019 to address the growing refugee crisis in Middle East and North Africa (MENA). The PROSPECTS Partnership Initiative aimed to improve access to employment and livelihood opportunities for host communities and forcibly displaced people. In 2021, IFC launched a \$17.5 million blended finance investment facility as part of PROSPECTS, to de-risk investments and increase the financial viability of high-impact projects benefiting refugees and host communities in Egypt, Ethiopia, Iraq, Jordan, Kenya, Lebanon, Sudan, and Uganda. The facility seeks to unlock private-sector financing, enable new private-sector solutions for refugees, and demonstrate the commercial viability of refugee-focused investments (IFC 2021).

The Innovation Lab has also proposed the Humanitarian Blended Bond as a way to address the lack of infrastructure and financing in low- and middle-income countries, where 84% of refugees are currently residing. The solution involves a collateralized debt obligation (CDO) structure to support investments in WASH infrastructure. The bond will be divided into three tiers, with varying levels of risk and return. The process will be fully transparent, with funding dependent on the asset's performance and use. The solution involves host country governments, donors, financial intermediaries, investors, and implementing agencies. The solution's metrics include the capital deployed, infrastructure built, and the well-being and health of refugees (Venton et al. 2019).

The Sida/UNHCR Partial Credit Guarantee Facility was designed in 2018 to encourage financial service providers to lend to refugees and develop products tailored to their specific needs without compromising on risk management standards. Sida acts as the guarantor for loans up to a value of \$15 million to partially cover the risk of loan defaults. The facility has been under development since 2016 and launched in Uganda and Jordan. It partially covers a micro-finance investment vehicle from Grameen Credit Agricole to finance three to four FSPs that target refugees. The CDP/IRC Innovation Lab proposed two bond instruments in 2019. The first—a blended bond—aimed to address infrastructure needs in host countries by attracting both public and private funding. The second—an impact bond—aimed to incentivize refugee integration in host countries (Swithern 2019).

2.7 | Blockchain-Based Financing

Recently, various humanitarian and development organizations have been exploring the possibility of utilizing Blockchain technology to merge governmental and private funding instruments, with the aim of enhancing effectiveness, responsibility, and clarity (Zwitter and Boisse-Despiaux 2018).

Universal Basic Income (UBI) is a common approach to providing aid, and blockchain and cryptocurrency can be used to facilitate its distribution. Smart Contracts can also be used to disburse

aid at regular intervals and store it safely. Blockchain technology is currently being used in various projects to provide UBI to vulnerable populations, including refugees. Building blocks is an example of such a project, successfully implemented by the World Food Program for 100,000 refugees in Jordan. The program uses blockchain and biometrics technology to enable refugees to purchase groceries using aid provided by the World Food Programme (WFP) by scanning their iris at checkout. The program is built on a private, permissioned blockchain and integrated with UNHCR's pre-existing biometrics technology to easily monitor and evaluate transactions. This process eliminates the need for beneficiaries to store and track cash or vouchers and increases accessibility for the most in need, even for those without a mobile phone (Crypto Altruism 2019).

The Rahat project utilizes blockchain-based mobile tokens to manage transactions among aid organizations, beneficiaries, and vendors. Its platform includes a dashboard, wallet, vendor app, and QR code/SMS-based token redemption process that enables beneficiaries to receive aid. With blockchain technology, the platform offers transparency, traceability, and real-time monitoring of fund flow. Besides, the efficiency of blockchain technology reduces the costs associated with aid distribution, such as bank fees and staffing costs. Rahat's online dashboard makes it convenient for vendors and beneficiaries, including those who are unbanked, to participate. Beneficiaries receive aid through SMS and can exchange tokens for cash or goods at local vendors, while vendors can convert tokens to local currencies through aid agencies or participating financial institutions (Crypto Altruism 2019).

In 2022, The World Art Bank launched a new project called Art for Ukraine's Refugees to raise funds for the 2 million refugees fleeing the Russian invasion. The project merges art, crypto assets, and non-fungible tokens (NFTs) to create a collection of iconic paintings from Ukrainian artists and sketches depicting the invasion, which were sold in tokenized format to raise £2.5 million. The NFTs were sold on OpenSea, with an access point as low as €20 per share. Proceeds were credited into a dedicated crypto account set up by the Ukrainian government and directed to the people of Ukraine for humanitarian purposes. The project was expected to issue and sell 1045 NFTs, with an additional tranche of 500 NFTs to be auctioned if the first 500 sell quickly (Pathe 2022).

As well, in 2022, DWM, an impact investor targeting emerging and frontier markets, introduced the Displaced Communities Fund (DCF) as the first of its funds. The DCF is focused on developing and demonstrating a market-based solution to scale and catalyze capital toward improving the self-reliance of forcibly displaced or migrant populations from Africa and the Middle East, through investments in financial inclusion and job creation, with a special emphasis on gender equity. The 10-year, \$50–75 million fund intends to attract capital from financial institutions and technology or operating firms, including mobile money and fintech, seeking to diversify their portfolios and product offerings to displaced or migrant populations (Market Links 2022).

Gravity is a platform that aims to use an individual's digital footprint to improve their access to financial services, employment opportunities, aid, and more. Users can collect data from various

sources and store it in a digital wallet, which can be shared with service providers to help them provide more customized services. Gravity helps refugees improve their chances of finding employment by allowing organizations to submit data on vocational training, language programs, and biodata to a refugee's digital wallet. This enables the user to share the data with other organizations, which can help them receive the right kind of support. In the long term, refugees can share their data with potential employers to help assess their competencies. This allows for targeted outreach by various organizations without the need for a centralized database (Burns, Younkman, and Zaccagnini 2020).

2.8 | Crowdfunding and Capital Investments

Crowdfunding and capital investment mechanisms generally cover long-term refugee needs related to income generation and financial inclusion. More specifically, they tend to be used to support employment, entrepreneurship, loan credit, capital investment, and development and delivery of goods and services covering other refugee-specific requirements—for example, education, health care, shelter, etc.

Emanuel-Correia et al. (2022) have examined over 180,000 business loan campaigns from 2015 to 2018 to gain new insights into the factors that determine the success of fundraising for loans requested by refugees on a peer-to-peer (P2P) platforms with a focus on social good. Besides the benefits, the study finds evidence of discrimination against female refugee entrepreneurs in comparison to nonrefugee entrepreneurs on the same P2P platform with a focus on social good.

Various crowdfunding initiatives have been launched for the purpose of providing donations, as well as investments, to refugees. The Aiming Higher campaign, launched by UNHCR, was a crowdfunding effort designed to raise funds for educating skilled refugees. The campaign was set to last for 5 years and aimed to increase the number of refugees enrolled in higher education from its current rate of 3%, which is below the global average, to 15% by 2030 (THE 2021).

In 2022, UNHCR launched a Refugee-led Innovation Fund and in its first step, provided 17 organizations with substantial funding to improve the lives of displaced persons and host communities. The fund was designed with the participation of refugees and aims to encourage the innovative capabilities of all stateless and displaced individuals. The selected organizations, hailing from countries such as Greece, Italy, Mali, Rwanda, and Uganda, will collectively receive \$700,000 in seed funding this year, in addition to comprehensive support from UNHCR in the form of mentorship and technical assistance. UNHCR underscores the significance of solutions produced by and for displaced individuals through the Refugee-led Innovation Fund, emphasizing the role of these communities as important local actors and changemakers who can make valuable contributions to their communities (UNHCR 2023).

Similarly, the Refugee Investment Network (RIN) strives to support refugees by introducing a new investment approach that focuses on the potential and needs of refugees and host communities. This approach is called Refugee Lens Investing (RLI), and

it aims to offer capital and opportunities for businesses and ventures led by refugees or that support refugees. These initiatives can help enhance the livelihoods and self-reliance of refugees. RIN supports RLI by advocating for policy changes that enable refugees to access fundamental rights such as work, banking, and housing, which are essential for their economic participation and integration. Additionally, RIN connects refugee enterprises with interested investors, offering services such as deal sourcing, due diligence, matchmaking, and impact measurement (RIN 2023).

2.9 | Waqf and Zakat Funds

Islamic social finance is an emerging, yet an underutilized option for financing for refugees (Spiegel et al. 2020). However, increasing attention toward Islamic Finance mechanisms can be seen through the literature. Kachkar (2017) suggests a new model called Cash Waqf Refugee Microfinance Fund (CWRMF) that aims to provide microfinance opportunities to aspiring refugee micro-entrepreneurs. The model addresses the issue of the lack of collateral required to obtain microfinance by incorporating a takaful unit that allows refugees to guarantee each other. To ensure the sustainability of the microfinance institution, the model includes a reserve fund.

The UNHCR Zakat Fund project has been as well designed to collect contributions by Muslims through Zakat, a compulsory donation that serves as an act of charity. These donations are channeled to UNHCR with the primary objective of addressing the needs of refugees worldwide. UNHCR Zakat Funds are utilized to offer a range of services to refugees, including but not limited to shelter, sustenance, water, education, healthcare, and livelihood opportunities (UNHCR 2023).

3 | Mapping of Refugee Finance Mechanisms

This section presented a comprehensive evaluation of several refugee financing mechanisms that are currently implemented

worldwide. However, it is important to acknowledge that these diverse forms of financing provided to refugees, whether through direct or indirect means, do not carry equal weight in terms of their inclusiveness, ability to enhance resilience, and effectiveness in facilitating the integration of refugees in host countries. To visually illustrate this assessment, Figure 6 offers a matrix depiction of the different refugee financing mechanisms, highlighting their performance across the aforementioned three dimensions.

4 | Proposing and Integrated Approach of Refugee Finance

The assessment of the global refugee finance landscape identifies three main limitations that limit refugees' well-being and integration in host countries. Firstly, inclusiveness as the identified mechanisms do not support all the stages of refugee displacement. Second, resilience support is required as they do not ensure refugees' resilience against emergencies and shocks. Third, effectiveness given that most of the mechanisms do not promote inclusion within host countries' economic and financial systems. We therefore suggest an integrated approach to refugee finance that takes into consideration refugees displacement phase. To facilitate this objective, we suggest the implementation of a multilateral fund, the Refugee Support Fund (RSF), with the mandate of mobilizing and allocating refugee finance. While RSF can use a variety of instruments and financing mechanisms, the following section will discuss two key mechanisms and their implementation process.

4.1 | Refugee Empowerment Sukuk

The RSF could implement a *Wakala Sukuk* program targeting refugee finance mobilization in the case of an emergency as depicted in Figure 7. Multilateral funds can play a key role in pooling and blending financial resources for crisis management.

The structure leverages on event-based financing principles whereby conflict early warning mechanisms, triggers, are

	Examples	Inclusiveness	Resilience Support	Effectiveness
Fixed Income Instruments	<ul style="list-style-type: none"> Social Impact Bonds Refugee Impact Bonds Social Inclusion Bond Development Impact Bonds 	<ul style="list-style-type: none"> Limited More appropriate for post-emergency and resettlement phases. 	<ul style="list-style-type: none"> Medium Can support resilience if associated with an event-based financing mechanism. 	<ul style="list-style-type: none"> Medium Can support effectiveness if associated with both a result-based financing mechanism and a Cultural Impact Assessment (SCIA) framework.
Social Finance Instruments	<ul style="list-style-type: none"> Zakat, Waaf Microfinance Social Impact Investing Philanthropy, Social Venture Philanthropy 	<ul style="list-style-type: none"> Limited More appropriate for pre-displacement and acute displacement phases. 	<ul style="list-style-type: none"> Limited Can support resilience if associated with an event-based financing mechanism and fintech-based solutions. 	<ul style="list-style-type: none"> Limited Does not reduce reliance on charitable funds.
Blended Financing	<ul style="list-style-type: none"> Equity/Qasi Equity Loans Guarantees 	<ul style="list-style-type: none"> Medium Can support inclusiveness if channeled through Refugee Community Organizations (RCOs) and philanthropic institutions. 	<ul style="list-style-type: none"> Limited Can support resilience if associated with fintech-based solutions to channel funds in a fast and efficient manner. 	<ul style="list-style-type: none"> Limited Can support effectiveness if associated with both a result-based financing mechanism and a Cultural Impact Assessment (SCIA) framework and channeled through Refugee Community Organizations (RCOs).
Multilateral Financing	<ul style="list-style-type: none"> Concessional Loans Official development Assistance (ODA) Grant Facilities Fragility and resilience-focused financial tools Cash-based interventions Guarantees 	<ul style="list-style-type: none"> Limited Can support inclusiveness if used in a blended structure, whereby multilateral funds are used to attract additional commercial funds. 	<ul style="list-style-type: none"> Limited Can support inclusiveness if used in a blended structure, whereby multilateral funds are used to attract additional commercial funds. 	<ul style="list-style-type: none"> Limited Can support effectiveness if used in a blended structure, whereby multilateral funds are used to attract additional commercial funds.
Fintech-Based Solution	<ul style="list-style-type: none"> Blockchain-based financing Crowdfunding 	<ul style="list-style-type: none"> High Have high potential to support inclusiveness throughout the various displacement phases. 	<ul style="list-style-type: none"> High Have high potential to support resilience throughout the various displacement phases if associated with other mechanisms such as financial literacy. 	<ul style="list-style-type: none"> High Have high potential to support effectiveness throughout the various displacement phases if associated with both a result-based financing mechanism and a Cultural Impact Assessment (SCIA) framework.

FIGURE 6 | Matrix analysis of current finance mechanisms in place against factors of inclusiveness, resilience support, and effectiveness in facilitating integration into host community.

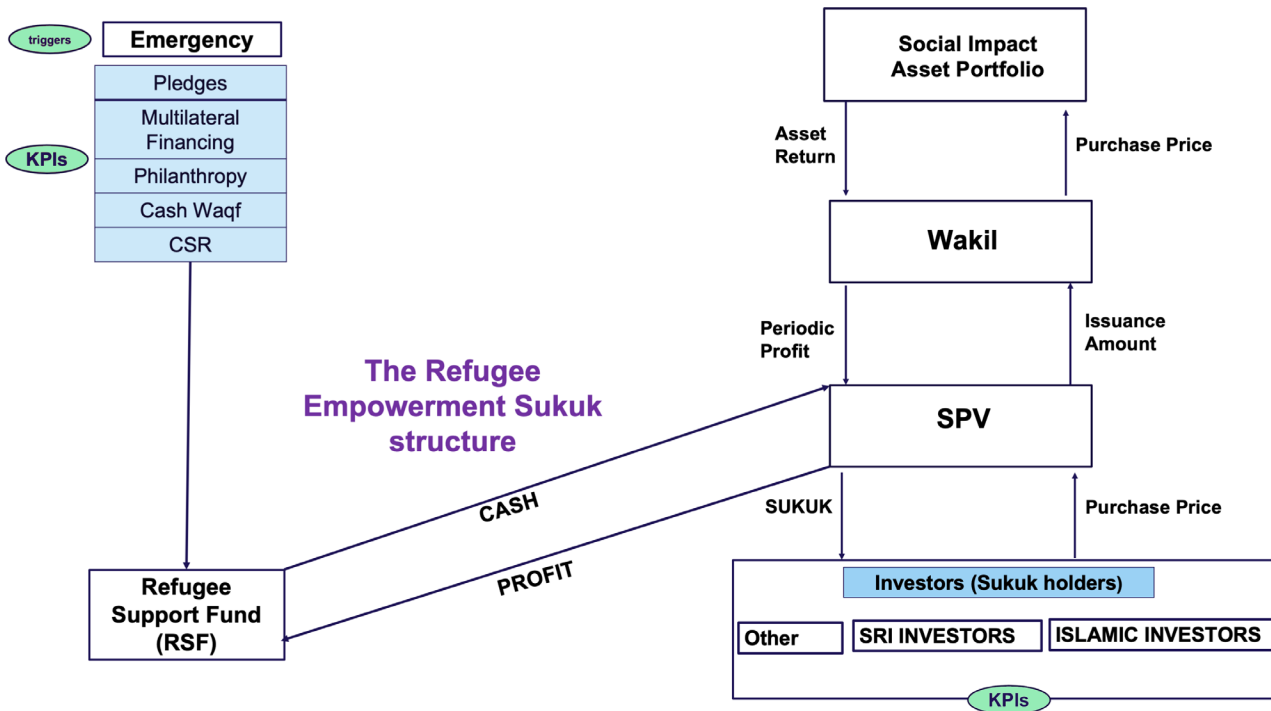


FIGURE 7 | The refugee empowerment *sukuk* structure.

linked to people displacement risk to strengthen preparedness in managing the refugee crisis. Through the Refugee Support Fund (RSF), the host country receives a payout based on pre-identified trigger mechanisms. The trigger mechanisms consist in early warnings for armed conflicts. The Forum of Early Warning and Early Response (FEWER), for example, has generated a series of indicators that promote armed conflict and that promote peace. In the FEWER model, there are 11 categories of factors that may lead to an increased chance of armed conflict occurring, with each category having multiple indicators (Nyheim and Sislin 2002). These include exclusion/ethnic tension, ideological factors, political opposition, regional/interstate, economic factors, violence, etc. The pay-out goes toward early intervention activities in the case of a displacement following an armed conflict.

Wakala is used in Islamic finance to describe a contract of agency or delegated authority pursuant to which the principal (*muwakkil*) appoints an agent (*wakeel*) to carry out a specific task on its behalf. The *wakalah* contract is used between the trustee as *wakil* and the *sukuk* holders as *muwakkil*. Under the *wakalah* contract, the certificate holders are contributors of subscription amounts that would be invested in revenue-generating high-quality assets targeting social development projects for refugees. In this case, the Trust, as *wakil*, is entitled to a fee for its services. The trustee appoints an investment manager to manage the trust assets on its behalf. *Sukuk* investors include the multilaterals, socially responsible investors (SRI), Islamic investors, and other institutional investors. The *sukuk* issuance proceeds will be invested in revenue-generating social impact assets targeting refugee's empowerment and integration.

Setting up a refugee empowerment *sukuk* program would require the adoption of a framework for the selection of eligible social

impact projects as well as a reporting methodology to assess the social and environmental impact of the projects financed.

4.2 | Blended Finance

In many countries support for refugee communities is channeled through Refugee Community Organizations (RCOs) which play an important role in facilitating the settlement and integration of newly arrived refugees to host countries. Given their familiarity with the local context, they can play a critical role in refugee finance allocation and impact monitoring.

The blended finance structure adopts a result-based financing (RBF) approach, an umbrella term referring to any program or intervention that provides rewards upon the credible, independent verification of an achieved result (Holland and Lee 2017) Figure 8. The purpose is to facilitate access to basic services for the refugees through the channeling of financing to RCOs that is disbursed against the achievement of pre-defined objectives. The RCOs can then disburse financing to refugees in the form of microfinance loans and interest-free loans to develop entrepreneurial activities and finance basic services. The implementation of a Social and Cultural Impact Assessment (SCIA) framework by the RSF can support the achievement of this objective. For example, improved quality of life can be assessed considering the percentage increase in adequate water, sanitation, and electricity access among the refugee population.

5 | Conclusion and Policy Recommendations

Preliminary analysis of the existing refugee financing mechanisms indicates that the majority are characterized by their post

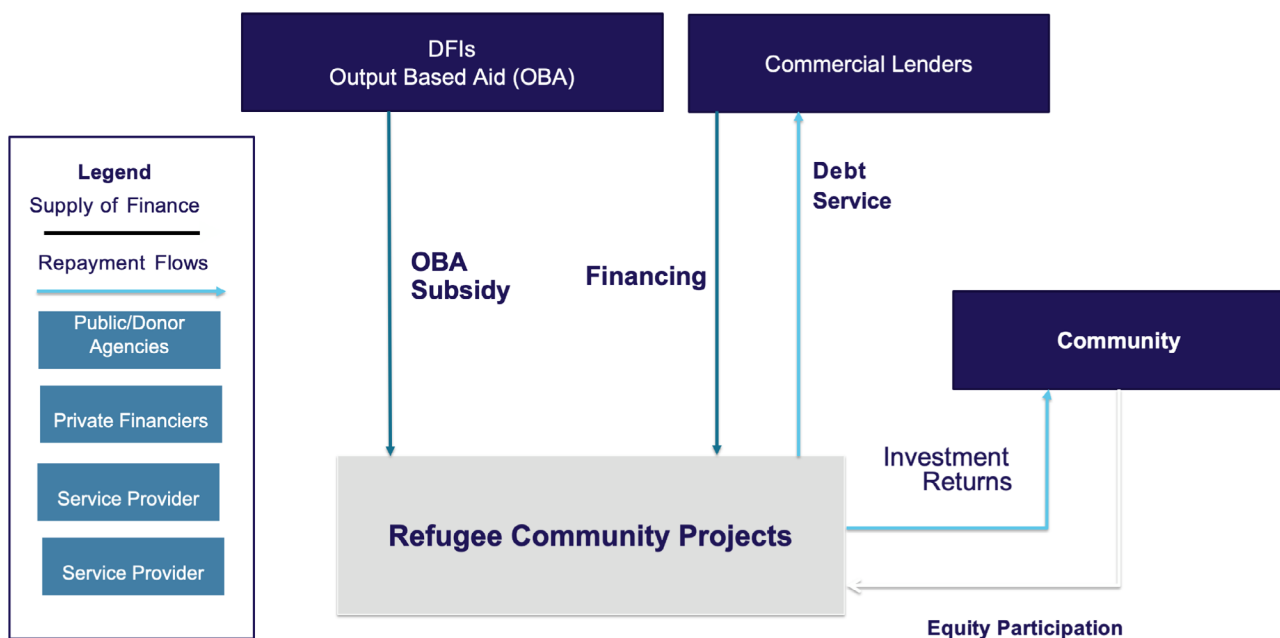


FIGURE 8 | The blended finance mechanism.

hoc, grant-based, small-size, short-term, unpredictable nature, in addition to their reliance on the discretionary contributions of a small number of governments, which limit their impact and effectiveness in promoting the beneficiaries' financial health and well-being.

The suggested support mechanism and refugee empowerment *sukuk* model could assist policy makers in strengthening their resource mobilization strategies to deal with refugees in an efficient and timely manner. It could also enhance the role of Islamic finance, sustainable finance, and fintech in supporting refugee empowerment and preventing the negative implications of displacements. Coordinated approach to refugee finance mobilization and allocation is therefore critical in supporting refugee integration and empowerment taking into consideration three action areas:

- Developing a proactive approach in supporting vulnerable displaced people from conflicts: event-based financing using armed conflicts early warning trigger mechanisms can facilitate quick mobilization and allocation of refugee support financing.
- Leveraging on fintech-based solutions to promote traceability and efficiency in financing allocation. Digital identities, alternative credit scoring models using big data as well as blockchain-based financing can pave the way for alternative funding mechanisms targeting vulnerable displaced people from conflicts.
- Scaling-up result-based financing in social impact and humanitarian financing to ensure impact and efficiency.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

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