

**INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION
ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

**Lisbon, Portugal
6-7 November 2023**

Contribution by WFP

to the CSTD 2023-2024 priority theme on “Global cooperation in science,
technology and innovation for development”

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PRIORITY THEME 2: Global cooperation in science, technology and innovation for development

United Nations Commission on Science and Technology for Development (CSTD)

To whom it may concern

The [26th CSTD annual session](#) selected “Global cooperation in science, technology and innovation for development” as one of the priority themes for its 27th session (2023-24 period). This theme addresses SDG 17 “Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development” at the 2030 Agenda.

Although the contribution of science, technology and innovation (STI) to the achievement of other sustainable development goals (SDGs) is discussed in every session of the CSTD, SDG 17 itself has not been specifically addressed for several years in the Commission. Interaction among CSTD members has resulted in several pilot programmes for international collaboration in STI. However, there is a need to consider from a broad strategic perspective the question of international collaboration in STI, including its digital dimensions. Under this priority theme the Commission could discuss the status of global STI cooperation (including coordination and funding) in knowledge creation and dissemination, the diffusion and sharing of technology and alternative modes of technology creation and distribution such as open-source approaches.

Under this theme, the Commission will examine how STI organizations at the global and regional levels collaborate better to scale up their impact on key development challenges; how to ensure that the international STI agenda is aligned with the development priorities of the Global South and includes adequate mechanisms for cooperation and sharing; and finally what could be the role of the CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing.

The CSTD secretariat is in the process of drafting an issues paper on the theme to be presented at the CSTD inter-sessional panel meeting to be held in the second half of October 2023 in Portugal. In this context, we would like to solicit inputs from international organizations, UN entities and agencies, and regional commissions on this theme. We would be grateful if you could kindly answer the following questions based on your organization’s work at the global, regional, and/or national levels:

1. What STI cooperative mechanism(s) at global or regional levels has your organization initiated or joined in?
2. To what extent the existing cooperation programmes are aligned with the development priorities of participating developing countries?
3. What are the main outcomes of such mechanism(s)? And what are the impacts of the resultant cooperation on participating countries? Pls. include the gender dimension.
4. What are the main difficulties your organization has encountered or is facing when implementing the cooperation mechanisms?
5. In respect of achieving the objectives and goals, what are the factors contributing to the success or failure of the cooperation mechanism(s) in which your organization has joined?
6. What cooperation could your organization propose to CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing?

Please indicate contact person(s) responsible for projects/policies and international collaboration in this context in case we need clarification on the inputs.

Please send your responses and any further inputs on the theme to the CSTD secretariat (stdev@unctad.org) by **15 August 2023**. We look forward to receiving your valuable inputs.

Sincere regards,
CSTD secretariat

1. What STI cooperative mechanism(s) at global or regional levels has your organization initiated or joined in?

In the sprawling tapestry of humanitarian action, organizations do not stand as isolated pillars but rather weave an intricate web of cooperation and co-action within the expansive landscape of the international humanitarian community. Guided by shared overarching objectives, these organizations create and contribute to a loosely configured yet deeply interconnected ‘system’, a testament to humanity’s collective endeavor in the face of adversity. This system, however, was not meticulously engineered. Instead, it evolved organically, and as such, it bears its own idiosyncrasies, redundancies, and inefficiencies due to a lack of orchestration.

Consider the response to a crisis or emergency: a multitude of organizations often converge to assist the same individuals, offering support in the form of cash, food, health, shelter, and protection. However, these well-intentioned, often overlapping efforts are often hampered by isolated approaches to beneficiary enrollment and assistance distribution. This leads to a fragmented, siloed approach, preventing a comprehensive understanding of the individuals served. The result is a conspicuous absence of detailed visibility regarding who is assisting whom and with what. Consequently, this raises the risk of an imbalance in the distribution of assistance, either over-serving or under-serving beneficiaries, while simultaneously complicating the assistance redemption process.

Recognizing the pressing need for greater cohesion, enhanced collaboration, and heightened transparency, a transformative solution was conceived in 2016 — [Building Blocks \(BB\)](#). This initiative envisions a world where diverse humanitarian organizations find their actions seamlessly integrated through a neutral blockchain network, thereby harmonizing and optimizing global assistance. By bridging the divide between organizations, Building Blocks aims to empower the individuals served, simplify their access to entitlements, and maximize the ground impact, all in a bid to construct a more efficient, effective, and equitable humanitarian sphere.

Situated at the intersection of humanitarian action and cutting-edge technology, Building Blocks is a constellation of blockchain “nodes” — computers independently operated by participating humanitarian organizations — that intertwine to construct a unified, resilient humanitarian blockchain network. This network provides the platform for launching a multitude of humanitarian applications, or “smart contracts” in the language of blockchain, catering to diverse needs.

By choreographing the intricate dance of humanitarian assistance and adopting a beneficiary-centric focus, BB enables a granular understanding of precisely who receives what type of assistance and from whom. Enhanced common visibility into our collective efforts ensures optimal assistance allocation, precluding the risk of accidental under or over-assistance, thus promoting fairer outcomes and easier access for those we serve.

2. To what extent the existing cooperation programmes are aligned with the development priorities of participating developing countries?

Humanitarian and development efforts often overlap. Typically, individuals assisted by humanitarian groups transition to development programmes. However, factors like economic challenges, political shifts, conflict, and climate-related issues can revert these populations to dependence on humanitarian assistance, creating a cyclical pattern.

Building Blocks enhances cooperation between humanitarian and development sectors by providing transparency at the household or even individual assistance level. An example of collaboration enabled by this visibility is "sequencing," where an individual's eligibility for a development program hinges on their history of humanitarian support. Building Blocks facilitates seamless transitions between humanitarian and development interventions through access to the necessary data.

3. What are the main outcomes of such mechanism(s)? And what are the impacts of the resultant cooperation on participating countries? Pls. include the gender dimension.

Building Blocks (BB) is not just revolutionary technology—it's a catalyst igniting transformative change worldwide. Its groundbreaking impact, evidenced in the lives of over 850,000 beneficiaries in Bangladesh, reverberates far and wide, resounding in a symphony of hope and resilience. Navigating through labyrinthine operational channels with exquisite finesse, BB has not only heightened our humanitarian reach but also significantly amplified our influence, thanks to collaborative alliances with organizations like UNICEF, underlining our commitment to beneficiary convenience and choice.

In Jordan—the cradle of BB—the project has been instrumental in distributing WFP's food assistance and generating an astounding \$3 million in bank fee savings. This venture has profoundly elevated the Jordan Country Office's global innovation stature, imprinting an indelible mark on humanitarian efforts worldwide.

Ukraine paints an equally remarkable tableau of BB's power. Serving as the anchor for the Ukraine Cash Working Group's (CWG) inter-organizational coordination, BB supports over 40 organizations. Since May 2022, our platform has effectively prevented a staggering USD 100 million in assistance duplication, a sum that is more equitably redirected to under or un-served households.

These numbers are not merely statistics—they are tangible evidence of lives saved, hardships mitigated, health improved, and hope rekindled. They embody our unwavering dedication to tackling hunger and poverty.

In the realm of gender dynamics, Building Blocks (BB) has been a beacon of transformative change. BB has collaborated with UN Women and innovated the traditional "cash-for-work" salary model. Instead of disbursing the entire amount on a fixed date, a practice that previously posed security concerns, BB's 'cash-back' mechanism at WFP-affiliated supermarkets empowers women to redeem any portion of their salaries whenever they deem fit. In addition to direct cash withdrawal, the women can use their salaries to purchase food items directly. Some studies suggest that when a female head of household manages the family's finances, especially food procurement, every family member is more likely to be sufficiently nourished.

Regarding the impact on host nations, BB has strived to bring about positive change by enabling empowerment and community engagement. Prior to BB, WFP's food assistance to the Rohingya refugees in Bangladesh was solely provided by prominent national retailers, headquartered outside of the areas hosting refugees. As such, the host communities, while impacted by the refugee presence and response, were not realizing any economic benefit from the related activities. BB, in its commitment to synergistic growth, has championed the integration of local traders into the supply chain, thereby ushering in locally-sourced fresh produce and meats—items traditionally challenging for large-scale retailers to offer cost-efficiently in refugee-centric zones. The initiative is anticipated to offer the following benefits:

- More variety and higher quality of certain food items at more affordable prices.
- A "multiplier effect" in the local economy.

- An amelioration of societal tensions between the host communities and the refugees.

Drawing parallels between BB's transformative influence in harmonizing humanitarian efforts and the potential reshaping of government mechanisms, one envisions new opportunities. Just as BB has seamlessly bridged humanitarian organizations, fostering unparalleled accessibility for the people served, a similar template stands poised to revolutionize governance. Envisage ministries—ranging from social welfare and health to education and housing—functioning in tandem, orchestrated with precision, akin to the harmonious symphony BB creates in the humanitarian realm.

Take Bangladesh as a testament to the potential necessity of such integration. With an intricate web of over 130 social safety net initiatives catering to 30 million individuals, the chances of overlapping services are not only possible but probable. Embracing BB's clarity, coherence, and coordination could be a monumental stride for governments, amplifying the efficiency and efficacy of services rendered to their citizenry.

4. What are the main difficulties your organization has encountered or is facing when implementing the cooperation mechanisms?

The main challenges in implementing coordination mechanisms, like Building Blocks, come from political resistance, competition, and divergent interests among humanitarian organizations. The blurring lines between organizational mandates, particularly evident in the case of cash-based transfers, contribute to these issues.

Humanitarian organizations frequently compete for the same donor funding. This situation incentivizes these organizations to highlight their own achievements rather than emphasizing collective efforts.

Strong advocacy is required from the highest levels of humanitarian organizational leadership to make progress. They must prioritize collaboration over unsustainable competition and embrace new technology-enabled opportunities for cooperation, primarily focusing on improving the lives of the people they serve, especially in constrained environments.

5. In respect of achieving the objectives and goals, what are the factors contributing to the success or failure of the cooperation mechanism(s) in which your organization has joined?

The success of collaborative technology-driven initiatives hinges on broad consensus and support from participating organizations. Key to this success is the endorsement from vital stakeholders. Equally important is establishing harmonized approaches with requisite standards endorsed by multiple participants. As global challenges grow more complex, designing flexible and modular systems is essential, allowing swift adaptation to unexpected shifts. Furthermore, practitioners must shift their mindset from pure competition to 'co-opetition'.

6. What cooperation could your organization propose to CSTD in coordinating and imparting directionality to international STI collaboration and technology sharing?

As a project team deeply entrenched in technology-based cooperation mechanisms since 2017, we bring a wealth of experience. Our journey encompasses technology deployment, programmatic nuances, and invaluable insights drawn from years of active presence in the field. We are keen to share our expertise and support initiatives that mirror our objectives.

Furthermore, we believe your forum offers a golden opportunity to amplify our project's visibility and bolster our advocacy efforts. Our goal is to broaden the reach of our initiative, connecting with an expansive audience, and catalyzing richer collaborations. For more details, please refer to the accompanying document, "Building Blocks (BB) - A High-Level Overview - v20230605".

Building Blocks (BB): A High-Level Overview

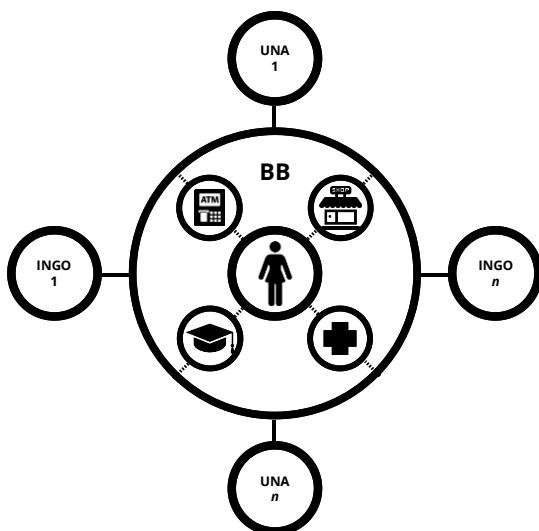
What it is

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Consider the response to a crisis or emergency: a multitude of organizations often converge to assist the same individuals, offering support in the form of cash, food, health, shelter, and protection. However, these well-intentioned, often overlapping efforts are often hampered by isolated approaches to beneficiary enrollment and assistance distribution. This leads to a fragmented, siloed approach, preventing a comprehensive understanding of the individuals served. The result is a conspicuous absence of detailed visibility regarding who is assisting whom and with what. Consequently, this raises the risk of an imbalance in the distribution of assistance, either over-serving or under-serving beneficiaries, while simultaneously complicating the assistance redemption process.

Recognizing the pressing need for greater cohesion, enhanced collaboration, and heightened transparency, a transformative solution was conceived in 2016 — [Building Blocks \(BB\)](#). This initiative envisions a world where diverse humanitarian organizations find their actions seamlessly integrated through a neutral blockchain network, thereby harmonizing and optimizing global assistance. By bridging the divide between organizations, Building Blocks aims to empower the individuals served, simplify their access to entitlements, and maximize the ground impact, all in a bid to construct a more efficient, effective, and equitable humanitarian sphere.

Situated at the intersection of humanitarian action and cutting-edge technology, Building Blocks is a constellation of blockchain “nodes” — computers independently operated by participating humanitarian organizations — that intertwine to construct a unified, resilient humanitarian blockchain network. This network provides the platform for launching a multitude of humanitarian applications, or “smart contracts” in the language of blockchain, catering to diverse needs.



One of the wonderful features of Building Blocks, inherent in its blockchain foundation, is its neutrality. Here, in the BB universe, there exists no hierarchy or dominance. Instead, all members participate in the network as 100% equal co-owners, co-operators, and co-governors, forming a cooperative realm devoid of overpowering administration. This helps circumvent potential obstacles of ‘ownership’ that could otherwise stymie inter-organizational collaboration at scale. Furthermore, BB membership is free and open to all International Non-Governmental Organizations (INGO) and United Nations Agencies (UNA) with a proven record of upholding the “Do No Harm” principles.

Building Blocks (BB): A High-Level Overview

How it works

Building Blocks membership involves two key steps: an eligible organization must first formally endorse BB's Governance Framework — a document delineating elements like roles and responsibilities, data privacy and protection¹, network upkeep, and dispute resolution; secondly, it must operate its own BB blockchain nodes.

Once a member, an organization's BB nodes connect to those of other members, gaining access to and becoming part of the network. With their wide-ranging utility and much like sharing a toolbox filled with multi-purpose tools, the smart contracts on the BB network are freely available to all members. For example, the World Food Programme (WFP) has pioneered smart contracts adept at managing the transfer of anything of value — be it cash, food, or hygiene products. The system is sophisticated enough to manage highly complex multi-layered programmatic scenarios involving several organizations, each with its own set of overlapping interventions and restrictions, simultaneously channeling assistance to the same recipients.

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Other BB members can leverage available smart contracts, either in their original form or modified to suit their specific requirements. Additionally, organizations are free to introduce new smart contracts catering to other use cases like digital identity, further contributing to the shared toolbox.

A true elegance of this system resides in its synergistic design: any investment in the network resonates throughout, yielding benefits for all members. This model dispenses with the unnecessary expenditure of resources on duplicate features across multiple disparate systems, paving the way for a more unified, efficient, and effective humanitarian ecosystem.

Results so far

Since 2017, Building Blocks has processed USD 500 million in Cash-Based Transfers (CBT) through 25 million transactions to 1 million Rohingya and Syrian refugees in Bangladesh and Jordan.

Moreover, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and United Nations Women (UN Women) have respectively utilized BB to disburse sexual & reproductive health provisions, sanitation & hygiene items, and direct cash to the people they serve.

Finally, Building Blocks has boosted the coordination of multiple assistance categories among 50 diverse organizations assisting 4 million people in Lebanon and Ukraine, preventing USD 100 million of unintended assistance overlap (duplication).

¹ Adopting a "Privacy by Design" approach, BB stores no sensitive data such as names, birth dates, or biometrics on its blockchain.