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IS BLOCKCHAIN AN ANSWER TO ENTERPRISE DEVELOPMENT IN FRAGILE STATES?

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The emergence of blockchain and related technologies like Bitcoin, a cryptocurrency, could be an intriguing and appealing development. This genre of disruptive technologies belongs to the group commonly referred to as distributed ledger technologies, a digital system that records transactions in multiple places at the same time. Unlike traditional databases, distributed technologies have no central storage authority. Warner Music Group, a music giant behind high-profile artists, has recently proposed a blockchain of digital assets—such as tradable digital merchandise. The gaming developer Ubisoft envisions a blockchain racing game in which its users can trade, race, sell, and buy unique cars.

Blockchain (BC) and other distributed ledger technologies are moving into new realms, raising initial concerns about how these systems should be governed. Facebook's digital coin Libra is a case in point. As stakeholders grapple with the development of suitable BC legislation and regulation, BC could potentially support other critical contexts—particularly, helping fragile and conflict-affected states overcome their lack of 20th century legacy systems and leapfrog into the 21st century. Specifically, this could be seen for the micro, small, and medium enterprises (MSMEs) in fragile and conflict-affected states (FCS).

These enterprises are, collectively, the largest employers in many FCS. FCS have the greatest proportion of partially or fully credit-constrained MSMEs. Such enterprises face insurmountable challenges as they seek to access the formal finance ecosystem. This fact sheet highlights the different ways blockchain can help enterprises overcome some of these obstacles.

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FINANCIAL INCLUSION

Credit Access and Reporting

- In June 2018, 2,000 Zambian small-scale farmers used BC to record their harvest and projected sale of 2,000 tons of cassava. This highlights how BC could formalize informal enterprises for them to become serviceable by formal financial institutions.

Client Financial Records Security

- BC-secured transaction registries permit enterprises to use equipment, livestock, machinery, crops, or inventories as moveable assets that could serve as moveable collateral,

helping reform outdated or nonexistent collateral registries. BC's integrity of recordkeeping could effectively support anti-money laundering and combat financing of terrorism measures in FCS.



BUSINESS DEVELOPMENT SERVICES

Market Access

- In Kenya, a BC-enabled finance lending platform for rural, smallholder farmers successfully processed more than 220 loans, which increased order size by 30 percent, and profits for each retailer by 6 percent on average.

- In Uganda, and across East Africa, BC certifies shipments of coffee originating from small-scale farmers and co-operatives, increasing farmers' incomes by 10 percent and providing its consumers product information.

Finance

- A Zimbabwe Women Farmers Accelerator Initiative invests in the agricultural sector by using BC to alleviate liquidity challenges and increase yields and enterprise development. This proves how using BC to digitally store enterprise performance track records could promote strong savings mobilization and enable the efficient transfer, sales, and collateralization of assets.



WILDLIFE, FOREST, & NATURAL RESOURCE MANAGEMENT

Cash Crops

- In Malawi, BC makes the flow of information between tea pluckers and buyers more efficient, increasing opportunities for small-scale farmers to save and invest in sustainable practices.

Natural Resource Management

- The previous Malawi example demonstrates how BC could monitor and trace the geographic reach and movement of cash crops and endangered species (both flora and fauna)—and hence increase supply chain transparency in products that are purchased.

Energy Supply and Usage

- In Africa and the Middle East, BC generates crypto-tokens, turning solar energy into a store of value that is used as a medium of exchange in mini-grid networks. Energy surplus could essentially translate into digital energy tokens, permitting MSMEs in FCS to buy/sell energy tokens and obtain real-time control of their own energy generation and/or supply.



DISASTER RESPONSE, ENVIRONMENTAL PROTECTION, & CONSERVATION

- In Rwanda, stakeholders have piloted a BC platform that traces the flow of financial aid, increasing visibility of critical areas of potential value, and speed of money transfers. This could benefit stakeholders involved in disaster preparedness and relief, or disease control and epidemics in FCS. By improving efficiencies in the immediate aftermath of incidences, blockchain helps reduce loss of life and natural resources relevant to MSMEs.



EMPLOYMENT GENERATION

- In Pakistan, BC ensures fair working conditions for locally skilled artisans by providing real-life stories of the craftsmanship behind the product directly to consumers, contributing to a 31 percent increase in online conversions. This intervention shows how BC can help increase employment and productivity among enterprises, through its ability to eliminate middlemen and allow users direct access and control.
- BitMari, a pan-African BC company, uses BC to create a level playing field within contract farming, by promoting fairness and transparency in existing agriculture production methodologies.

CONCLUSION

Mainstream adoption of BC functions on the assumption that its use and the intentions of its users are in good faith, and hence the services generated are accurate and trustworthy. Research by these authors finds that distributed ledger technologies could have great utility for enterprises. BC—as illustrated in this fact sheet—can be an effective tool that helps bridge private sector financing deficits in FCS while assisting public sector institutions in creating favorable conditions for the development of enterprises.

For more information & examples, contact info@oneearthfuture.org