



United Nations
Economic Commission for Africa

Concept Note

Expert Group Meeting

on

“Blockchain technology in Africa”

21 to 22 November 2017

United Nations Conference Centre

Addis Ababa

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Blockchain technology in Africa

1. Introduction

1. The Internet continues to spawn new technologies that change the way people interact with their environment in significant ways, in areas as diverse as social relations, the way business is done, and economies. One such agent of change is “blockchain”, a revolutionary technology¹ that allows parties to transact directly with each other without the need for intermediaries as central trusted third parties. *The Economist*² calls the blockchain technology “the trust machine”, because “it lets people who have no particular confidence in each other collaborate without having to go through a neutral central authority.”

2. Blockchain technology underpins “bitcoin”, the decentralized cryptocurrency. It is, however, much more than that: it can be thought of as a “chaincode” of information written in a single distributed register (or ledger) by participants. It can be inspected by participants, however, no one participant controls it. This register contains pages (or blocks) that are modified every 10 minutes with new information.

3. Its origins underpin the technology for the cryptocurrency bitcoin, but blockchain technology does not stop there. The opportunities of multiple use that this technology offers continue to expand. Its advantages include decentralization; security and transparency; and high resistance to outages, auditable and efficient. Its use goes much further and extends to many sectors that range from financial, health, industrial (including chemical processes and mineral processing), energy, environment and information technology (IT). According to the firm Research and Markets³ from the United States of America, the worldwide cryptocurrency and blockchain technology market will grow by 35.2 per cent during the forecast period 2016–, to touch an aggregate of \$42.16 billion by 2022. Most of this growth, however, will take place in the United States, followed by Europe, the Asia-Pacific and India.

4. In Africa, there are very few concrete cases of the use of or adoption of blockchain technology. Solutions are developed within the constraints of a poor understanding and knowledge of the technology, especially in sectors other than banking. In addition, central banks do not have regulations in place for innovation technologies of this kind. Bitcoin, nevertheless, is gaining ground in countries such as Ghana, Kenya, South Africa, Tunisia and Uganda, where it is used generally for money transfers. Banks in South Africa, including the Reserve Bank, are beginning to accept the innovation of digital currencies and blockchain technology despite the differing opinions of regulators on matters such as cryptocurrencies. Tunisia is the first country in the world to issue its national currency via an application that

¹ <http://www.hlmediacomms.com/2016/09/19/blockchain-in-africa/>

² *The Economist*, 31 October- 6 November 2015.

³ <https://www.researchandmarkets.com/research/34frjf/worldwide>

operates through blockchain. Uganda has started regulating bitcoin, and Senegal plans to introduce a digital currency (the “e-CFA”) based on blockchain technology.

5. With the range of applications being implemented, from enabling micropayment systems to digital identity management to smart contracts, there is no doubt that blockchain-based solutions can leapfrog traditional or non-existent technology infrastructures in African countries. Such revolutionary developments are the drivers of a new era of more inclusive growth in which “no one is left behind”. To boost growth, Africa could take advantage of the blockchain technology in multiple sectors, including: international transfer of funds, land and property registers, fight against counterfeit medicines, agriculture and mining (in particular, the traceability of various raw materials), certification of diplomas and other administrative documents, and organization of elections. Blockchain technology represents the potential to enhance transparency and reduce long-standing inefficiencies and costs within multiple sectors of any economy and is therefore of particular relevance to African economies. If Africa is to use blockchain technology as an inclusive factor of development, however, there are many challenges remaining, such as policy and regulatory implications, access to ICT infrastructures, security and trust aspects, and energy consumption.

6. At ECA, the New Technology and Innovation Section, as part of its policy research activities, aims to explore new trends in new and emerging technologies to provide African policy and decision-makers with policy advice on harnessing new technologies and innovation to transform its economic and social development. It is in that context that ECA is organizing an expert group meeting on blockchain technology in Africa to explore the potential of that technology, to be held in Addis Ababa on 21 and 22 November 2017.

2. Achieving the objective

7. The general objective of the meeting is to review a policy document on the theme of the expert group meeting. The document assesses the broad concepts, state of knowledge and practices of blockchain technologies in Africa and provides a set of recommendations for consideration by African policymakers and decision-makers.

Specific objectives

8. The following are the specific objectives:

- Better understand the potential of blockchain technology and its application in various socioeconomic sectors;
- Assess the current status and challenges in the adoption and diffusion of blockchain technology in Africa based on the experience of selected countries and sectors;
- Provide policy recommendations for consideration by African policymakers and decision-makers.

3. Expected outcomes

9. The key expected outcomes of the meeting are as follows:
- Peer-reviewed policy report on diffusion of blockchain technology in Africa;
 - Improved understanding of the role of blockchain technology in realizing comparative advantages for the structural transformation of Africa's economies;
 - Created awareness on the potential of blockchain technology in the future to promote new growth for start-ups across the region;
 - A set of policy recommendations (produced and shared) for consideration and adoption by Governments of Africa, Africa's continental and regional organizations, the private sector and other stakeholders in Africa's development.

4. Documents

10. The main documents of this regional consultation meeting will include the draft policy report, "Adoption/diffusion of blockchain technologies in Africa" and a concept note. All documents will be accessible online and can be downloaded from the ECA website.

5. Date, venue and participants

11. The meeting will take place on 21 and 22 November 2017 at the United Nations Conference Centre, Addis Ababa.

12. The meeting will be attended by policymakers, ICT and finance experts, representatives of regional economic communities and intergovernmental organizations, representatives of regional and international organizations; also included are telecommunications operators, individuals representing Central Banks; and individuals representing the private sector, the civil society, academic and research institutions.

6. Outputs

13. The outputs: a meeting report, which will serve as an input into the finalization of the policy report; a policy brief on the possibilities and challenges of blockchain technology adoption in Africa; and a policy brief on the regulatory requirements for blockchain.

7. Working languages

14. English and French are the working languages of this meeting. There will be simultaneous interpretation.

8. Contacts:

15. For further information, including registration information, please contact:

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