Final Report of the Policy Makers Workshop on Cryptocurrency and Blockchain regulation in Uganda (4th - 5th July 2018)

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1 ABSTRACT

The first policy makers workshop in Uganda on the regulation of crypto currencies and the Blockchain, took place on the 4th and the 5th July 2018 at the Golden Tulip Hotel in Kampala. The aim of the workshop was to consider proposals for public consultations that drew on multi-sectoral approaches to policy making. A new interdisciplinary Working Group was set up to write a research brief that could form the basis on which the proposed Task Force on the Blockchain could develop a public facing policy consultation document on the regulation of distributed ledger technologies in Uganda.

- Dr. Maureen Mapp, Convenor and report co-author.
- Mr. Solomon Rukundo, report co-author
- Mr. Patrick Mwaita- (UNAFRI) programme organiser.

The event was co-sponsored by UNAFRI and the University of Birmingham Law School.

2 BACKGROUND

The first policy makers workshop in Uganda on the development of policy proposals for the regulation of cryptocurrencies and the Blockchain took place on the 4th and 5th of July 2018 at the Golden Tulip hotel in Nakasero, Kampala. The workshop was the third in a series of research activities co-organised by UNAFRI and the University of Birmingham Law School on the complexities surrounding the regulation of emergent transformative technologies in Africa. Policy makers included the Minister for Internal Affairs- Honourable General Jeje Odongo who opened the event, and the Minister of State (General Duties) for Finance, Planning and Economic Development, Honourable Dr. Gerald Ajedra who gave the Keynote address. Other participants included regulators like the Central Bank of Uganda, the Uganda Communications Commission, and related agencies like the Directorate of Public Prosecutions, the Uganda Police Force, the Uganda Law Reform Commission, the Judicial Training Institute, and the Uganda Revenue Authority. Participants were also drawn from the public, cryptocurrency businesses and enthusiasts, academia, and Blockchain companies under the auspices of African Blockchain.

The event aimed to consolidate the gains of the first and second Roundtable discussions on the regulation of cryptocurrencies and the Blockchain. The two 2016 and 2017 Roundtable reports form the basis of the discussions on policy- led public consultations. The first roundtable event held on the 7th of July 2016 [1]at UNAFRI, recommended that principled guidance be developed for the regulation of virtual currencies including cryptocurrencies. The second round table event hosted on the 6th of July 2017 at UNAFRI culminated into the *Declaration on Fundamental Principles on the Regulation of Cryptocurrencies and the Blockchain (Digital Ledger*

[1] The report of the first Roundtable can be found at https://www.birmingham.ac.uk/Documents/college-artslaw/law/research/Final-Report-on-Regulation-of-Virtual-Currencies-2016.pdf

Technologies) in Uganda[2] that was adopted by participants in 2017. The Declaration itself is based on principles of a technical, ethical, legal, political and socio-cultural nature, that draw on existing policies, regulatory mechanisms, and the legal frameworks at the local, regional and global level. The principles are summarised here:

1. Automating regulatory compliance underpinned by the principles of interoperability, scalability, cybersecurity, accountability, transparency and trust.
2. Use of the Blockchain given its benefits (among others) of widening financial inclusion through faster, transparent micro-payments.
3. Technological neutrality in the drafting of legislation, and as a tool in the interpretation of legislation by the courts.
4. Ethical principles of 'do no harm', of fairness, of transparency, of trust, of non-deception and of non-discrimination that protects consumers and encourages socially desirable business. Ethical consumer behaviour (like meeting tax obligations) is to be encouraged.
5. Data security principles of consumer protection underpinned by legal principles on the processing of personal data and the processing of sensitive data.
6. Data protection principles: data subject's rights including data privacy protected under sector specific laws.
7. Legality principle: the constitutional principle of legality should be broadened in order to include the oral customary norms and sanctions. The legality principle can also be achieved through the application of existing laws.
8. Principles of Clarity and Certainty on the definition of terms like cryptocurrencies and the Blockchain, and the qualifying and non-qualifying technology activities.
9. Proportionality principle**:** compliance requirements should pass the proportionality test whereby the purpose for regulation is legitimate, the means by which the regulators objectives are pursued are laid down in the law, the regulatory intervention (measure) is correctly directed to its technological target, and the regulatory measure does not exceed what is necessary to attain the legitimate objective.

The Declaration and the two 2016 and 2017 Roundtable reports recognise two broad limits of the current regulatory framework for cryptocurrencies and the Blockchain in Uganda's emergent economy. The first is the lack of clarity of policy objectives and rationalisation of policies among regulators, which gap could undermine efforts to engender conceptual clarity surrounding cryptocurrency and the Blockchain. Unclear and non- rationalised policies could in turn weaken efforts to promote fair competition and ethical behaviour, to enhance data security, offer data protection, and to make policies relevant at the legal, economic, and social- cultural level. The second limit is the gap in the constitutional and legislative mandate of financial and related

[2] Second Round Table Report 2017 and the *Declaration on Fundamental Principles on the Regulation of Cryptocurrencies and the Blockchain* can be found at http://unafri.or.ug/wp-content/uploads/2018/04/Round-table-final-Cryptocurrency-report-April-23.pdf and at https://www.academia.edu/36738008/2017_Kampala_Declaration_on_Principles_on_regulation_of_cryptocurrencies_and_Blockchain.pdf . The Declaration on its own is at: http://unafri.or.ug/wp-content/uploads/2018/04/Kampala-Declaration-on-Principles-on-regulation-of-cryptocurrencies-and-Blockchain-April-23.pdf

regulators to give clarity (through sector specific laws or guidance for example) to users about regulatory protections for services, and avenues for remedial action; and to investors and businesses on which crypto assets and Blockchain activities fall within a regulator's remit, what compliance requirements should be adopted, and the appropriate consumer safeguards to be put in place.

The workshop engaged with these two questions and drew on external support from research done by those working in academia and elsewhere in order to engage in critical discourse on Ministerial and departmental level policies that engender a community responsive approach to regulation, agenda setting for public involvement in policy making, and the relationship between regulation and risk-based proportionate policy. Participants acknowledged that giving full effect to the Declaration would need a multi-sectoral approach to bridge the disconnect between policy-makers, regulators and the distributed ledger technology sector's understanding about the socio-cultural, legal, economic and political implications of this technologically enhanced environment. This knowledge gap could undermine principled (and evidence) based policy-making. There was need to plug this gap to ensure that policies, laws, and processes were based not only on evidence, but were based on a principled approach to compliance, enforcement and adjudication-one that is buttressed by public participation.

Participants reviewed the Kampala *Declaration on Fundamental Principles on the Regulation of Cryptocurrencies and the Blockchain (Digital Ledger Technologies)* against the backdrop of the just concluded African Blockchain Conference[3] that was hosted in Kampala on the 23rd and 24th of May 2018. There, the President of Uganda H.E. Mr. Yoweri K. Museveni who expressed his interest in and support for the use of the Blockchain and cryptocurrencies in Africa, cautioned against the adoption of a "dogmatic" approach to financial sector development that would be counterproductive to economic development. The Governor of the Central Bank of Uganda, Professor Emmanuel Mutebile while acknowledging the potential for the Blockchain and cryptocurrencies to revolutionise the financial sector, highlighted the risks that cryptocurrencies pose to the public due to their pseudonymous nature that could facilitate tax evasion and the demand for payments in cryptocurrencies using ransomware. There was also the issue of consumer protection and prevention of the arbitrary use of discretionary power by regulators.[4] The two positions illustrated the tensions for policy makers between promoting innovation and protecting the public from those who misuse the technologies. Engaging the public in this debate was seen as key to developing effective public facing regulation.

A key outcome of this policy maker's workshop was the setting up of a Working Group drawn from the participants, to research on the regulation of cryptocurrencies, and Blockchain technologies.

[3] https://africanblockchain.org/
[4] The Observer team, "Museveni, Mutebile disagree on cryptocurrencies" *The Observer*, 23rd May 2018 at https://observer.ug/special-editions/57755-museveni-mutebile-disagree-on-cryptocurrencies.html; and on NTV Uganda, May 23, 2018, https://www.youtube.com/watch?v=fxSP_5Ml9MM.

The group was tasked by the Minister for Internal Affairs, and endorsed by the Minister of State (General Duties) for Finance, Planning and Economic Development, with researching six areas:

1. Measures for technological security, trust and risk assessment;
2. Principled policy approaches to regulating cryptocurrencies and block chain technology;
3. The legality of cryptocurrencies including user rights, consumer protection, obligations of the state and of providers, and the promotion of ethical behaviour;
4. The applicability of existing legislative frameworks;
5. Investigatory, prosecutorial and judicial approaches to settlement of disputes using forensic models; and
6. Socio-cultural legitimacy surrounding consumer behaviour among 'fringe' communities in order to avoid exploitation and to reduce their vulnerability.

3 SUMMARY OF RECOMMENDATIONS

This report documents the discussions on the prospects and challenges of developing any sort of public facing policy on crypto assets and distributed ledger technologies. Among the report's proposals, the following stand out:

1. Policy guidance and regulation is needed for financial clarity. A tax policy is a good starting point, as cryptocurrencies could be taxed under the existing law on income tax, capital gains tax or value added tax. Individuals should be obliged to meet their tax obligations based on a moral sense of duty to pay tax.
2. Content gap between the concept and nomenclature of the technologies and the scope of the existing laws needed to be addressed.
3. The existing knowledge gap about the technology among the public and private sectors has resulted in misinformation about the emergent technologies and how they are used. This misinformation could be addressed through nationwide public awareness strategies and programmes on areas like information security.
4. The skills gap in the use of emergent technologies was manifest at all levels of the public and private sector. There was need for a coherent cross sectoral training policy to address the skills shortage.
5. The technology itself suffers from disruption including outages, which could reverse the social, economic, and cultural, benefits of the technologies. Firms should address the limits of the technologies through self-correcting measures and mitigate the potential harm to consumers.
6. Tracing software and systems should be purchased and/or updated to facilitate investigations.
7. To facilitate investigations and monitoring, policies and regulation should allow for the registration of traders/investors who should be obliged to comply with Know Your Customer requirements as well as those on Money Laundering. To this end, pseudo names should not be used by traders.

8. Given that fintech is a social fact, a collaborative approach to policy making was necessary to ensure that Uganda continues to leverage this opportunity to use digital assets and the Blockchain technology while mitigating the risks.
9. Harmonise regulation and policies at the regional level. Such harmonisation should consider the issues of extra-territorial jurisdiction and the effect of the European Union General Data Protection Regulation in Africa.
10. Policies should aim to balance innovation with consumer protection. Regulatory sandboxes such as that in use by the Uganda Communications Commission should consider not only the specific technology, but also the integrity of the system or platform and the use of permissioned Blockchains to address data privacy and data protection concerns.
11. Regulation should be future proofed so that it does not lag behind the technological developments.
12. Greater visibility and control for individuals and better protection for privacy is needed. Individuals should know why, when and how their data is being processed.
13. The plurality of legal norms in terms of notions of autonomy, responsibility and obligation, and the practices of non-state systems ought to be integrated in policies and regulation.

A core recommendation was for a cross-sector public policy that embodied the seventeen principles in the 2017 Kampala Declaration, that might form the basis of a national consensus on the regulation of distributed ledger technologies in Uganda. A research brief on this policy would be developed by the Working Group and would be availed to the Ministers and those on the proposed National Taskforce on Blockchain.

4 WELCOME ADDRESS BY MR JOHN KISEMBO, AG. DIRECTOR OF UNAFRI[5]

Mr Kisembo welcomed participants to the policy maker's workshop and thanked the two government Ministers- Honourable General Jeje Odong and Honourable Dr. Gerald Ajedra for attending the event. He explained that as on the two previous occasions, the event was co-organised by the Africa Centre of Cyber Law and Cybercrime Prevention (ACCP) located at the United Nations African Institute for Crime Prevention and Treatment of Offenders (UNAFRI) in conjunction with the University of Birmingham Law School represented by Dr Maureen Mapp. Uganda, he noted, was on record as being the first country in Africa to venture into the area of regulation of cryptocurrencies in 2016.[6] Other African countries including Nigeria, had since developed their own position papers and policy documents.

At the time of UNAFRI's inception in the 1990s, the Africa sub-region unlike other regions did not have an organisation that was devoted to strengthening national criminal justice systems with innovative research-based initiatives. It took the combined efforts of the African group at the

[5] https://unafri.or.ug/
[6] Jamie Redman, "Uganda Considers Future Cryptocurrency Regulations" (2016) at https://news.bitcoin.com/uganda-future-cryptocurrency-regulations/

United Nations and at the Organisation of African Unity (now African Union) to urge the then United Nations Secretary General to set up an institute for the regulation of criminal justice for the African sub-region. Once established, UNAFRI began to develop policies using principled approaches. One example was the correctional policies that drew on rights-based approaches, on theories of rehabilitation and integration, and on the principles of the United Nations (UN) Minimum Rules for the Treatment of Prisoners.[7] The UN Rules were integrated into regional declarations like the seminal 1996 Kampala Declaration on Prison Conditions in Africa,[8] and the 2004 Lilongwe Declaration on Accessing Legal Aid in the Criminal Justice System in Africa.[9] UNAFRI paid tribute to its first policy makers for creating a cross disciplinary approach to criminal justice regulation.

2016 marked the start of the first roundtable discussion on the regulation of cryptocurrency in Uganda. The goodwill of participating institutions and individuals led to a proactive initiative to inform and propose policy and regulatory measures driven by the use of cryptocurrencies as an investment vehicle and concerned at its ability to spark an underground illicit financial industry. The workshop agreed on principles associated with the regulation including in the technological, policy and legal spheres. In 2017, the second roundtable adopted the Declaration of fourteen Fundamental Principles on the Regulation of Cryptocurrencies and Blockchain in Uganda, drafted in line with some key recommendations from the Central Bank of Uganda. The second-round table followed the warning by the Central Bank of Uganda in February 2017 about the use of cryptocurrencies, but it was not clear if the position had changed.

This first ever policy maker's workshop would culminate in the setting up of a Working Group to research on key areas of collaboration in the development of research led policies and laws that may be useful in the regulation of payment technologies. The Working Group would not be a substitute for established Ministries or government departments but would develop principles and offer expertise and guidance in a collaborative manner.

The concern for this policy maker's workshop was whether digital innovations were for the common good of the people, and if so, how they could be harnessed to foster socio-economic development and build safer community networks. Equally important was the question of how to regulate those firms engaged in the business of developing, marketing and selling these innovative products. Since the previous roundtable discussions, there was enough information about cryptocurrencies to convince all stakeholders about the need for regulation. The critical issue was to acknowledge the potential use of cryptocurrencies as against the reality of its limits. Given that these innovative technologies were here to stay, there was need to set in place a mechanism to regulate its adoption and use in transactions and to provide guidance to avoid unintended offences such as money laundering schemes and illicit activities.

[7] United Nations Standard Minimum Rules for the Treatment of Prisoners 1955
[8] https://www.penalreform.org/wp-content/uploads/2013/06/rep-1996-kampala-declaration-en.pdf
[9] https://s16889.pcdn.co/wp-content/uploads/2013/06/rep-2004-lilongwe-declaration-en.pdf

Mr Kisembo concluded his welcome address and wished the participants a fruitful discussion.

5 INTRODUCTORY REMARKS BY DR MAUREEN O. MAPP, BIRMINGHAM LAW SCHOOL, UNIVERSITY OF BIRMINGHAM[10]

Dr Mapp welcomed participants to the first ever policy workshop and passed on greetings from the University of Birmingham. She recognised the presence of the two government ministers: Honourable General J.J Odongo- the Minister of Internal Affairs and Honourable Dr. Gerald Ajedra- the Minister of State for Finance and Planning (General Duties), of Dr. Justice Henry Adonyo from the Judicial Training Institute, and those from the public and private sector, about a quarter of whom were individuals with close interest in cryptocurrencies and Blockchain.

The two-day workshop Maureen explained, would look at ways of merging policy learning and public engagement to develop 'progressive' policies.[11] A systematic approach to policy learning one that drew on social learning, was needed to prevent a policy being rejected by a political system. The July 2018 public outcry against the social media tax[12], exemplified how a radical policy innovation appeared to have been rejected by the political system. Minister David Bahati, the Minister of State for Finance, Planning and Economic Development (Planning) had promised Ugandans that the government would have to rethink the tax.[13] The rejection of the tax showed that policy makers needed to adopt collaborative policy making that drew on African values like participation which engaged with the polity, with the political system, and with what the policy makers wanted. Such a collaborative approach was necessary to leverage the distributed ledger technologies that were changing lives in emergent economies.

Since 2007 when Kenya launched its M-Pesa mobile money/online exchanges in the years before the launch of Satoshi Nakamoto`s cryptocurrency and Blockchain in 2009, technological developments had merged crypto assets with the phone, the use of the internet, and increasingly with the Blockchain. In 2014, Bitpesa in Kenya[14] launched its international remittance service and bitcoin exchange platform. The following year, in 2015, one of the first documented uses of

[10] https://www.birmingham.ac.uk/schools/law/staff/profile.aspx?ReferenceId=82776

[11] Policy learning could be at various levels including the meso level where organisations seek to expand their understanding of a situation and react, adapt to improve problem solving- Stéphane Moyson, Peter Scholten and Christopher M. Weible "Policy learning and policy change: theorizing their relations from different perspectives", *Policy and Society*, (2017) 36:2, 161-177

[12] Social media tax is excise duty levied on 'over the top' services such as voice or messages over the internet under the proposed amendments to the Excise Duty (Amendment), Bill 2018. More on this in Godfrey Mwesigye's blog "The Excise duty (Amendment) Act, 2018: A progress for Uganda's economy or an impediment to telecommunication?" available at http://parliamentwatch.ug/the-excise-duty-amendment-act-2018-a-progress-for-ugandas-economy-or-an-impediment-to-telecommunication/#.XIUpDSL7TIU

[13] Geoffrey Serugo, "Social Media tax is inconveniencing" (3rd July 2018) http://eagle.co.ug/2018/07/03/social-media-tax-is-inconveniencing-minister-david-bahati.html . There is a related court case of *Cyberlaw Initiative Uganda Limited and others v Attorney General of Uganda and 2 others* Constitutional Petition 26 of 2018 that challenges the constitutionality of the tax and indicates that the tax has a 'chilling effect' on innovation

[14] https://www.bitpesa.co/solutions/pesi/

cryptocurrencies in Uganda, was for the payment of airport taxi fares.[15] In fact, according to research from the GSMA, in 2015, mobile technologies and services generated 6.7% of GDP in Africa, amounting to around $150 billion of economic value. Mobile technologies were predicted to generate 7.6% of GDP by 2020. For example, the expansion in the use of the mobile technologies was seen in 2017 when Kenya launched its M-Akiba bond which can be purchased via a mobile phone using Blockchain technology.[16] Similarly, the World Bank's 2017 Global Findex data showed that 44.4% of Ugandans had an account, more than double that in 2011. This increase was driven by mobile money with 38% of Ugandans having a mobile money account.[17]

May 2018 saw the launch of Africa-specific cryptocurrency like the ethereum based Humaniq that included a chat feature for users.[18] M-Coin launched by ONEm, works on any phone with or without internet, allows "pseudo-mining" that lets users earn mCoins on any ordinary mobile phone, and lets the owners of mCoin virtual wallet send and receive mCoins. [19] May also saw the launch of the first cryptocurrency Automatic Teller Machine (ATM) in South Africa,[20] while in June 2018, Binance one of the world's largest crypto exchanges launched their cryptocurrency exchange in Uganda.[21]

These positive developments pose some risks to users, businesses, and regulators. From a criminal law perspective, was the risk of fraud, theft, and hacking, and the risk of cryptocurrencies being used in money laundering, and for terrorism financing. Then there was the business-related risk of unethical behaviour, practices, and the lack of a charge bank facility. For the start-ups and businesses, was the challenge of securing data and maintaining data privacy. For regulators, the challenge posed by cross border businesses was just the tip of the iceberg.

The May 2018 BTC Global scam[22] in South Africa that cost investors about a billion Rand, illustrated how companies were able to act fraudulently by convincing people to invest in digital tokens while promising an unachievably high interest rate, and then steal the depositors' money. In June 2018, Bithumb, a South Korean crypto-exchange and one of the largest in the cryptocurrency world suffered an attack in which over 30 million dollars' worth of cryptocurrency

[15]The findings are in the Report of the Commonwealth Working Group on Virtual Currencies", *Commonwealth Law Bulletin* (2016) 42 (2) 263-324, 276. The survey on Uganda was conducted by Maureen Mapp under the auspices of the Rule of Law Division of the Commonwealth Secretariat
[16] http://www.m-akiba.go.ke/
[17] https://globalfindex.worldbank.org/
[18] https://humaniq.com/
[19] http://dailypost.ng/2018/01/03/onem-launching-mcoin-first-digital-currency-accessible-without-internet/
[20] James de Villiers, "SA's first cryptocurrency ATM will open in Johannesburg by the end of this week" https://www.businessinsider.co.za/sas-first-cryptocurrency-atm-to-open-in-johannesburg-by-the-end-of-the-week-2018-5
[21] Official Launch of Binance Uganda Fiat-Crypto Exchange, June 2018, https://support.binance.com/hc/en-us/articles/360006584151-Official-Launch-of-Binance-Uganda-Fiat-Crypto-Exchange
[22] Mfuneko Toyana, "South Africa investigates $80 million bitcoin scam", *Reuters*, 25th May 2018 at https://www.reuters.com/article/us-safrica-crime-bitcoin/south-africa-investigates-80-million-bitcoin-scam-idUSKCN1IQ162

was allegedly stolen.[23] In both instances, it was not clear if investors would get all their money back. Theft occurred where a private key was stolen, or where the owner gave the details of their digital wallet to the cybercriminal and their cryptocurrency was stolen. This happened in the Bithumb hack, where the victims handed over their details genuinely thinking that they were dealing with the managers of their account. Unethical behaviour came in a range of shades with some businesses offering unsuspecting customers high rates and falsely claiming this was the customer's opportunity to climb onto the economic ladder. Dr Mapp's discussions with some cryptocurrency start-ups had shown that the lack of a charge back facility where incorrect or disputed transactions could be cancelled, was an area of concern as crypto tokens had sometimes been sent in error to the wrong person and the transaction could not always be reversed in the same way as those for fiat transactions.

For firms and businesses, the risk posed to data security was real. Every hack meant that people's data including their user names, email addresses, physical addresses and telephone numbers had probably ended up on the dark web. Once data was compromised, it was difficult to get compensation. In the Bithumb scenario, the amount being offered in compensation for personal information leakage was little – about 870 dollars per person even where damage or harm has been proven. This problem was worsened by the lack of regulation that recognised these kinds of currencies in South Korea at the time. Equally, for regulators (and governments), one concern was the use of cryptocurrencies for money laundering and terrorism financing. In fact, India was so concerned about this, that they had started to clamp down on cryptocurrency transactions. The worry of the Central Bank was that digital tokens issued by the private parties could undermine the Anti Money Laundering and FATF framework.[24]

Cross border jurisdiction also posed problems for governments in particular the fact that crypto assets issued in countries with enabling laws (like Japan) could be transferred to Africa, with no legislation or policies in place, yet their origins were difficult to trace.[25] Switzerland was a popular country for opening up crypto asset head offices as it had one of the most permissive regimes in the world. Once a head office was set up under Swiss law, the product was then launched in an African state that often lacked a robust consumer protection regime or regulatory framework and the product was sold or traded usually without an operating licence. Some start-ups working in emerging economies seemed reluctant to seek licensing or to operate through a registered

[23] Woflie Zhao, "Bithumb $31 Million Crypto Exchange Hack: What We Know (And Don't)" *CoinDesk,* 20th June 2018 at https://www.coindesk.com/bithumb-exchanges-31-million-hack-know-dont-know

[24] Transcript of Reserve Bank of India's (RBI) First Bi-Monthly Policy Press Conference, 5th April 2018 at https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=3465. A ban by the RBI on financial institutions providing services to cryptocurrency firms/businesses was upheld by the Supreme Court of India-Upmanyu Trivedi and Rahul Satija "Cryptocurrency Virtually Outlawed in India as Top Court Backs Ban" *Bloomberg*, 3rd July 2018 at https://www.bloomberg.com/news/articles/2018-07-03/india-s-banking-ban-on-cryptocurrency-survives-court-challenge. Similar concerns were raised by Morocco's currency regulator *Office des Change* on 20th November 2017 when it banned transactions in cryptocurrencies- MB Staff, "Morocco bans all cryptocurrencies including Bitcoin" *Mena Bytes* 28th November 2017 at https://www.menabytes.com/morocco-crypto-ban/

[25] Desné Masi, "Why it would be in everybody's interests to regulate cryptocurrencies" *The Conversation*, 11th February 2018 at https://theconversation.com/why-it-would-be-in-everybodys-interests-to-regulate-cryptocurrencies-91168.

company especially in African states. Setting up a head office in another country but operating without a licence in an African country, indicated a gap in the African regulatory and policy space that left ordinary people vulnerable to exploitation, and to lack of data protection and of data privacy among other risks. Looking at the example of the Swiss company and Microsoft that were offering the block chain services to Rwanda Land registry, it was not clear how data security and data privacy would be assured with questions of where personal data of users would be processed - in Switzerland, in Rwanda, the country receiving the Blockchain database, or in a third country? Secondly, what legal regime would apply- the *African Convention on Cyber Security and Data Protection*, or another regional or national laws? Moreover, the liability of parties in case of a breach by the 'donor', 'recipient' or third country where none of the countries had ratified or acceded to the African Conventions, was unclear. Such areas needed to be given careful consideration before such multi-state systems were launched in Africa.

The Blockchain also posed some challenges to crypto business due to its immutability (lack of change) like that of information privacy, of choice of procedure across jurisdictions, and liability. Access to information was important, as the immutable nature of Blockchain needed to be protected. Even so, due to concerns about privacy, some businesses may not want their Know Your Customer (KYC) documentation or customers digital identity to be available to other businesses with which they did not have (or had suspended) a business relationship. Similarly, if business operated in different jurisdictions, this created a quandary regarding which regulations to apply. Then there was the issue of liability where the customer had themselves executed a fraudulent transaction, and it is not clear who should be responsible for re-verifying the client's digital identity and keeping the distributed database updated. A related question was how often the reverification process should be carried out. Customers themselves posed a problem to the Blockchain due to fraudulent use of the system.[26]

The lack of policy, law and regulations in many African countries on the status of crypto assets like cryptocurrency, and of rights of users, of duties, and obligations of businesses (and individuals), and measures for consumer protection created a grey regulatory zone. As Mr Kisembo had pointed out, Uganda was the first country in Africa to host a round table in 2016 to discuss questions surrounding policy making and the regulatory landscape, and to agree on some form of instructive guidance which was then developed in the 2017 Kampala Declaration on Fundamental Principles of regulation drawn from technology, law, policy and sociology (culture) among others. Interestingly, at the first-round table in 2016, some participants thought that cryptocurrency was akin to some spiritual being- it seemed that incomprehensible at the time. Uganda had now moved from conceptualising digital technologies as' witchcraft', to working with them to digitise the economy. Since 2016, there had been expanding interest in the area and three years on, the African Blockchain conference[27] held in May 2018 in Kampala was but one

[26] Chrysostomos Filippou," Blockchain: A KYC-AML use case" *Gold News*, 8th March 2018 at http://www.goldnews.com.cy/en/opinion/blockchain--kyc/aml-use-case
[27] Details can be found at https://africanblockchain.org/ .

example of discussions among policy makers, banks and the regulators about the Blockchain. In fact, at the May 2018 conference co-hosted by Kwame Rugunda of Africa Blockchain, Mr Frank Tumwebaze,[28] the Minister of Information, Communications Technology and National Guidance promised to use the Blockchain to leverage information. The chair of the Uganda Bankers Association (UBA)[29] also announced that banks would do use the Blockchain to lower operational costs and risks. Elsewhere in East Africa, countries like Rwanda were using the Blockchain to upgrade their land registry.[30]

Uganda had taken tentative steps towards policy formulation as shown in the announcement in May 2018 by Mr Frank Tumwebaze the Minister for Information, Communication Technology and National Guidance, that a Task Force on the Blockchain would be set up soon. This was welcome news, however, given that the Blockchain was a technology that could either support or even replace the law, there was need for policy makers to engage in wider research on the limits of Blockchain-based systems of regulation and on effective ways of regulating it. [31]

One of the main tasks for the workshop was agenda setting to help identify policy questions that needed to be researched and to look at how they could be addressed. Participants were encouraged to explore questions on how to define the public, and whether it could include investors, consumers, businesses, academics, vulnerable and marginalised groups and luddites. The latter group did not believe in technology preferring instead the traditional banking and payment systems, cash and paper-based transactions. The non-engagement of luddites could affect policy learning, yet the breadth of views (both in favour of and rejecting technology) were important for responsible policy making that engaged the public on policy questions. There were related questions on whether to adopt sector specific policy making, or to use a multi-sectoral approach to policy making right from the identification of the problem. Problem identification could run simultaneously or be undertaken separately from policy formulation. The other policy 'circle' stages of policy adoption, implementation and evaluation would follow in due course.

Even so, to engender policy development needed 'looking back' to learn from the state's response to disruptive technologies that were 'leap frogging' the policy and regulatory frameworks. An evaluation of past responses would help policy makers reconsider the binary approach to regulating technologies: rule by law or rule by code. Rule by law governed the activities and was

[28] Jeddy Genrwot, "ICT Minister Frank Tumwebaze to set up Taskforce to assess opportunities on Blockchain Technology" *PC Tech Magazine,* 28th May 2018 at https://pctechmag.com/2018/05/ict-minister-frank-tumwebaze-to-setup-taskforce-to-assess-opportunities-on-blockchain-technology/

[29]Martin Luther Oketch, "Banks will adopt blockchain technology - UBA chairman" *Daily Monitor*, 28th May 2018 at https://www.monitor.co.ug/Business/Technology/Banks-will-adopt-blockchain-technology---UBA-chairman--/688612-4582924-oachmm/index.html

[30] http://isiafrica.net/rwanda-to-adopt-blockchain-technology-for-its-land-registry/. 3rd January 2018. This is a venture by a Swiss cybersecurity company in partnership with Microsoft and the Government of Rwanda.

[31] Malta for example was the first country in the world to regulate blockchain, cryptocurrency and distributed ledger technologies. Jimmy Aki, "Malta Approves Favorable Cryptocurrency Bills in Next Step as a Blockchain Island" *Bitcoin magazine*, 29th June 2018 at https://bitcoinmagazine.com/articles/malta-passes-favorable-cryptocurrency-laws-next-step-blockchain-island/.

usually preceded by policy, while rule by code governed the operations of the algorithm encoded by software. Such algorithms run the Blockchain, cryptocurrencies and related crypto products.

The state's response usually combined both approaches with more emphasis on rule by law. Examples included the Warnings by Central Banks in Africa since 2014, against the use of cryptocurrencies, such as that issued by Uganda in 2017.[32] Notably, in 2018, Francois Groepe the Deputy Governor of the South African Reserve Bank issued a clear warning that cryptocurrency was not money as it did not meet the requirements of money in the economic sense: as stable means of exchange, a unit of measure and a stable unit of value.[33] Directives such as the 2018 Uganda Communications Commission Directive on sim card registration being congruent with national identity card registration,[34] was another way in which states tried to address loopholes in the technology and to track illegal use of technology. Other methods included the application of existing laws usually by looking for compliance with financial rules as exemplified in Groepe's statement above. Uganda had a more 'creative' approach to the use of existing laws. At the second-Round table discussion in 2017, the police explained how in the absence of a specific law they used the offence of Unlawful Assembly in the Penal Code to arrest those people operating Crypto Save, a company that was suspected of conning people into investing in cryptocurrencies. The use of unlawful assembly may have helped the police get more information about the company, but it could not be used to prosecute Cryptosave for fraud. Still, where there was no policy or law, or where public interests, rights, duties or obligations were unclear, judicial intervention was a way to offer clarity. Notably, parties sought such judicial intervention in the Kenyan case of *Lipisha & Bitpesa Limited v Safaricom Limited* [2015] where the petitioners unsuccessfully challenged the termination of their licence for dealing in bitcoin without a license from the Central Bank of Kenya contrary to the Money Remittances Regulations and National Payment Service Act.[35]

Rule by Code was found in various decentralised systems and applications some of which were overseen and used by state bodies. At the 2017 Roundtable for example, the National Information Technology Agency (NITA) explained how public key infrastructure (PKI) that relies on a cryptographic standard (X.509) was used by organisations to provide, share and simplify the secure delivery of services or products.

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[32] Other warnings include that by South Africa (2014), Kenya (2015), and Nigeria (2017). Elsewhere on the African continent, countries like Algeria had banned the use of cryptocurrencies (Algeria's 2018 Finance Bill)

[33] SARS's stance on the tax treatment of cryptocurrencies, SARS 06 April 2018, http://www.sars.gov.za/Media/MediaReleases/Pages/6-April-2018---SARS-stance-on-the-tax-treatment-of-cryptocurrencies-.aspx

[34] The legality of this Directive was challenged by the Uganda Law Society as falling foul of existing regulations which allowed for a wider range of identification documents like passports or voters cards for registration purposes. Stephen Kafeero, "New UCC SIM Card Registration Directive Illegal - Law Society" 15th April 2017 https://allafrica.com/stories/201704170351.html. The Directives were later amended.

[35] *Lipisha Consortium Limited & Bitpesa Limited v Safaricom Limited* [2015] eKLR Petition 512 of 2015 especially at paragraphs 78-80, 86.

The state response was not without problems. The narrow focus on binary controls of rule by law or rule by code; and the way in which regulators operated in regulatory silos with lack of joined up policies could lead to potential overlap/collision. There was a corresponding lack of clarity for both investor and customer about which products and activities were covered by the regulator's mandate, compliance requirements and what regulatory protections existed in this area. A third problem was that the regulatory response eschewed the current plurality of norms in terms of notions of autonomy, responsibility and obligation in the practices of non-state African customary systems that sometimes differed from legal norms in many African countries.

In her concluding remarks, Dr. Mapp pointed out that although policy makers acknowledge that distributed ledger technologies were a cost-effective method of enabling e-commerce, these technologies created challenges for policy makers regarding whether to promote innovation, or to focus more on consumer protection or on some other policy objective. To resolve this tension, a move to develop progressive policies that harnessed the benefits of the digital technologies, managed their risks, while engaging the public in the discussion, was needed. In this context, a public facing policy needed to cover a range of areas starting with the clarification about the status of cryptocurrency (and its nomenclature) including where cryptocurrencies fit within the theory of money and currency in relation to the sovereign state, and which transactions and uses fell within consumer protection regimes. Proportionality as a basis of policy and legislative reasoning was another area of concern, as was the question of ethics of responsibility in developing progressive policies such as the ethical standards of technology in relation to data security and privacy. Attaining procedural legitimacy through public participation in progressive policy making needed to be underpinned African values like reciprocity, respect, and social harmony that were embedded in pluralistic African customary systems. The list of areas in which further engagement was needed, was not exhaustive.

The 2017 *Declaration on Fundamental Principles on the Regulation of Cryptocurrencies and the Blockchain (Digital Ledger Technologies) in Uganda* was a useful starting point as it offered a range of principles that could be used to rationalise policy objectives and to address the gaps in the constitutional and legislative mandates of financial and related regulators. Giving full effect to the Declaration would need a multi-sectoral approach to bridge the disconnect between the public (broadly defined to include businesses and consumers) and policy-maker understanding about the socio-cultural, legal, economic, and political implications of this emergent distributed ledger environment. Plugging this gap would help ensure that policies were not only evidence based but also took into account technical rules (like those on exchange control, unfair competition, and taxation), the principles of legality, technological neutrality, proportionality and the like, and were underpinned by a public participatory approach to policy making.

6 OPENING ADDRESS BY HONOURABLE GENERAL JEJE ODONG, MINISTER OF INTERNAL AFFAIRS[36]

The Minister welcomed the participants to the policy maker's workshop. He began his address by stating that cryptocurrencies and the Blockchain were difficult to understand by ordinary Ugandans. Cryptocurrencies were based on the generation of units of digital representations of currency and on the transfer of those units (funds) using encryption techniques to prevent unauthorised access to information and to verify users. There was no doubt that these cryptocurrencies had a considerable impact on the economy, on security, and on the interaction between people and nations. They also posed a quandary for policy makers.

On the one hand, cryptocurrencies were important for development. The Bitcoin for example, provided an outlet for gaining personal wealth, and it was possible for digital transformations to translate into a public good. On the other hand, although cryptocurrencies were making people wealthy, this development had happened outside the oversight function of the state and of its regulatory mechanisms. Cryptocurrencies operating outside of the established banking and trading systems could be used for illicit activities which could become harmful to the state and to individual citizens. Using the breakup of the Soviet Union as an analogy, the Minister explained how the fragmentation led to the creation of new states some of which were awash with illegal weapons. Those trading in and using illegal weapons were difficult to trace. By comparison, the down side of cryptocurrencies was that they could be used for illegal activities facilitated by the Dark Web. In such a situation, the function of the state was to protect the welfare of its citizens.

In response to these concerns, an initiative to inform policy considerations of the safe utilisation of these digital inventions was set up by UNAFRI and School of Law of the University of Birmingham. The Government of Uganda welcomed this expertise intervention and paid tribute to the University of Birmingham, and UNAFRI for leading the way in researching policy approaches to give clarity to cryptocurrency and block technology-based businesses and users and investors in the products. The Minister urged the participants to exhaustedly discuss and propose ways to help the government prepare researched policy proposals. He was happy that the Minister for State for Finance General Duties was present as he would be well placed to bring any policy proposals to the attention of the government at an appropriate time.

The Minister emphasised that there had to be a clearer understanding about the benefits and risks of cryptocurrencies and the Blockchain. This level of understanding had not yet been fully achieved, which was why for example in July 2016 when the first Roundtable took place in Kampala, the notion of virtual currencies was a myth covered in mystery; evoking curiosity but also causing a lot of anxiety. Since then, there had been wider exposure on the subject including how it worked and its use as a means for the provision of services and goods. Even so, in February 2017, the Central Bank of Uganda issued a cautionary warning to the general public against the

[36] https://www.mia.go.ug/

continued use of and dealing in cryptocurrencies. [37]This cautionary note served the purpose of indicating that the Central Bank was yet to indulge in the digital revolution that produces cryptocurrencies[38]. The Bank that ought to guide the public appeared to be at the fringe of the revolution. That cautionary note also indicated that the policy making processes had not given direction to the adoption of cryptocurrencies in the mainstream operations of trade and commerce. Despite this acknowledgement that cryptocurrencies were not yet mainstream, they were gaining ground in the economy, sometimes with unfortunate consequences to the unsuspecting public like fraud or theft arising from the lack of regulatory mechanisms and policy guidelines on their use. The public were left to face these challenges with no protection whatsoever. The positive and negative aspects of cryptocurrencies therefore pointed to the need for regulation.

When discussing regulation, one needed to be clear on who bore the responsibility for regulation. The primary function of the state is to promote the welfare of its citizens as members of one family. It attains this function primarily by safeguarding those interests that are common to all people living within the state's jurisdiction. In fulfilling this responsibility, the state needs money and it is in this context that the state often evokes its financial function and attendant regulations. The policy question at heart of the debate was what the regulation was meant to do: promote innovation or safeguard the interests of all stakeholders? This question had to be deliberated on at the workshop.

The Minister requested the workshop participants to pay attention to six specific areas: measures for technological security; trust and risk assessment; approaches to regulating cryptocurrencies and block chain technology; the legality of cryptocurrencies including rights and obligations of the state, of the businesses/providers and of the users, as well as consumer protection and the promotion of ethical behaviour; the applicability of existing legislation frameworks in areas such as taxation, insurance and proceeds of crime; and the investigatory, prosecutorial and judicial approaches to settlement of dispute using forensic models. Finally, the Minister asked for an inquiry into consumer behaviour among the poor, rural and illiterate communities regarding the use of these technologies, and the use of socio-cultural legitimacy to protect these fringe communities from harm and exploitation.

In his closing remarks, General Odong requested the participants to read the Roundtable reports and the Kampala Declaration and to refine the recommendations in the Declaration. The recommendations of the workshop would help the government better engage in the development of a policy for the regulation of cryptocurrencies. The Government (through the Ministry for Finance) were keen on taking up the workshop recommendations and to promote them to other Ministries and government departments with a view to having wider discussions and adoption. Such workshops and roundtables were a step in a right direction as they were based on the

[37] Central Bank "Warning to the general public about 'One Coin Digital' Money operations in Uganda" at https://www.bou.or.ug/bou/media/statements/One-Coin-Digital-Money-operations-in-Uganda.html.
[38]Frisco d'Anconia, "Uganda Bitcoin Queen: Bank of Uganda Warning Only Makes Bitcoin Popular" *Coin Telegraph*, 2nd March 2017, at https://cointelegraph.com/news/uganda-bitcoin-queen-bank-of-uganda-warning-only-makes-bitcoin-popular.

exchange of expert and professional knowledge, views, and ideas which would help demystify the concept of cryptocurrencies and help deliver the expected intervention from the policy makers and regulatory authorities.

The Minister then officially declared the Workshop open.

7 KEY NOTE ADDRESS BY HONOURABLE DR. GERALD AJEDRA ARIDRU, MINISTER OF STATE FOR FINANCE, PLANNING AND ECONOMIC DEVELOPMENT (GENERAL DUTIES)[39]

In his Key Note address, Dr Ajedra outlined the responsibilities for his Ministry in relation to policies for taxation, economic growth, financial stability and the like. Some policies raised concerns among the public regarding the justifications for the policies. A current example was the excise duty levied on social media use, dubbed the social media tax.[40] The tax raised arguments which were similar to those posed by crypto currency enthusiasts, that online internet-based transactions conducted outside of Uganda should not be taxed. Equally, in opposition to the social media tax, some argued that cryptocurrencies were intangible transactions that took place outside of a country and so the state should not regulate them.

The Minister noted that the concept of cryptocurrencies was more complex than that of money, and therefore difficult for some to understand. The concept of money was easier to appreciate because it was based on the need for a medium of exchange. Historically, people engaged in barter trade, for example exchanging potatoes for salt. The system was imperfect so a medium of exchange that was acceptable to everybody was developed, leading to the creation of money. For example, in the 19th Century, the dollar was created and was backed by gold, but later on the United States Federal Reserve Bank decided to move away from backing the dollar with gold. The dollar today was not worth its equivalent at that time. The growing use of the digital currency for trade now posed challenges for the traditional concept of money. Cryptocurrencies were now manifest among those youth who were digital natives, and arguably their use appeared to be prevalent in trade between individuals and among various organisations in the country.

This policy maker's workshop was of significance to the development of Uganda. The upsurge in modernisation in the field of information and communication technologies had ushered in the digital revolution that had birthed the global phenomenon of virtual currencies that included cryptocurrencies. Even so, despite large volumes of cryptocurrencies being traded daily, one of the challenges it faced was the volatility of the cryptocurrency. Bitcoin was one example- hitting

[39] https://www.finance.go.ug/mofped/top-management
[40] Excise Duty (Amendment), Bill 2018. See also David Okwii, "A complete list of OTT Apps that will be Taxed in Uganda" 1st July 2018, https://www.dignited.com/32753/a-complete-list-of-ott-apps-that-will-be-taxed-in-uganda/

a high of USD 20,000 per Bitcoin at one point before falling to 11,000 and then 8,000 USD. [41]Such volatility raised questions about whether those investing in or buying the cryptocurrency, particularly non-digital natives, understood it sufficiently to appreciate its benefits and risks. Equally, policy makers and regulatory bodies were facing challenges in coping with these developments as the cryptocurrencies were running parallel to the legal tender, functioning as a sort of measure of value but without any oversight by the financial sector.

Opportunities for understanding the concept of cryptocurrencies had been brought nearer to the public through initiatives such as the two roundtable discussions and the policy makers workshop organised by UNAFRI in collaboration with the University of Birmingham Law School. In continuing the search for effective interventions based on expert knowledge, this workshop had brought together Ministers, the judiciary, regulators, academics, and cryptocurrency and the Blockchain businesses to discuss contemporary issues in policy making and to lay strategies for public consultation on policy recommendations while drawing on and modifying the principles set out in the Kampala Declaration 2017. The Minister recalled that this initiative was organised on an annual basis to offer technical assistance to the Government of Uganda in the development of policy and legislation on the regulation of cryptocurrencies. This initiative was important to the Government because of the need for research and empirical findings from legitimate sources to guide the action plans for the development of Uganda's economy. Indeed, the momentum for policy guidelines had attracted the attention of experts, policy makers, judicial authorities, law enforcement agencies, bankers, and regulatory bodies in various fields. The Government was pleased that this initiative had resulted in a set of principles found in the Kampala Declaration which was discussed in 2017.

The Minister referred to M-Pesa and how it had revolutionised the payment systems and the ways of receiving money. M-Pesa was a financial transactions development developed in Kenya, that had now spread round the African continent. Uganda's MTN Mobile Money was an example of how payment systems had been modelled around the M-Pesa concept and had contributed towards the financial inclusion of millions of people in rural Uganda. In the coming years, the integration of African economies would become a reality and African governments needed to consider cost effective policy measures to harness this digital transformation which would drive economic development. For this ideal to be realised, states needed to put in place a mechanism for its regulation. The problem, however, was the disconnect between policy-makers, the general public and the crypto currency and Blockchain businesses about the socio-cultural, legal, economic and political effects of this emergent cryptocurrency environment. It was imperative to plug this gap, so that the development of policy and laws, as well as law enforcement procedures, and the adjudication processes could be based on effective regulations and guidelines.

[41] Dimitri Kornilov, Dima Zaitsev, Nick Evdokimov, Mike Raitsyn, Anar Babaev, and Daria Generalova, "Weekly Cryptocurrency Market Analysis [June 18-24, 2018] " at https://www.coinspeaker.com/weekly-cryptocurrency-market-analysis-june-18-24-2018/#

The Minister reiterated that on their part as policymakers, the responsible Ministers would take the recommendations of the workshop, inform the Cabinet on the necessary actions to be taken. The Government of Uganda attached significant importance to this event that built on expertise in economics and related policy issues surrounding the regulation of Cryptocurrency and the Blockchain technology. The Minister requested the participants to sustain the flow of relevant updates about regulation of cryptocurrencies in the country. He suggested that the topics for discussion be sector specific and cover a variety of areas including Ministerial or departmental level policies in the nascent area of cryptocurrency and the Blockchain regulation; in agenda setting for public involvement in policy making; in the role of policy making as a tool for proportionate law making; on the relationship between regulation and risk-based proportionate policy, on co-regulatory or self-regulatory approaches to regulation, and on the role of research in policy making. The workshop would inform policy developments in this area by offering recommendations and proposals on how the government could adopt, regulate and safely embrace the use of cryptocurrencies in Uganda's dynamic economy. The recommendation would contribute towards bringing Uganda to the middle level income status powered by a vibrant economy, consistent with Government policy of attainment of necessary transformation in all sectors of production as stated in the Uganda Vision 2040 Agenda.[42]

Dr. Ajedra, concluded his speech by supporting the continued partnership between the government and the different stakeholders on the development of policy guidelines. While receptive to cryptocurrencies and the Blockchain, he reiterated that the government was seeking answers to the question of how to regulate them so that those risks including where people lost their hard-earned money through fraud, theft, hacking or some other action, could be minimised. He wished the participants a constructive discussion.

8 Panel 1: Legal, Ethical, Taxation and Related Policy Issues

8.1 Executive Director, Judicial Training Institute- Justice Dr. Henry A.P. Adonyo[43]

Justice Adonyo noted that the reports from the previous two roundtable discussions, and from the presentations of the Ministers showed that there were questions regarding the direction that policy should take in this area needs to be done. He referred to an article written by Rahul Nambiampurath[44] which argued that African countries were warming up to cryptocurrencies which were being adopted mainly by the youth who wanted to earn a living from cryptocurrencies. Even

[42] Uganda Vision 20140 available at https://www.gou.go.ug/content/uganda-vision-2040.
[43] http://judiciary.go.ug/
[44] Rahul Nambiampurath, "Uganda May Turn out to Be the Pinnacle of Cryptocurrency Trading and Evangelism", *BTC Manager*, March 26, 2018, https://btcmanager.com/uganda-may-turn-out-to-be-the-pinnacle-of-cryptocurrency-trading-and-evangelism/

so, Judge Adonyo warned that there was little by way of consumer protection at all stages of the cryptocurrencies eco-system like mining and investment. Many such businesses that operated cryptocurrencies did not have insurance or a bond to protect investors in African countries. Moreover, the volatility of cryptocurrencies could lead to economic uncertainty, financial instability and in the worst-case scenario: bankruptcy.

Given the unclear concept of cryptocurrencies and their status in relation to legal tender, their volatility and fraud surrounding its use, it was clear that there was going to be plenty of litigation in this area. As cases came to court for dispute settlement, the main problem was what legal regime would be appropriate for the aggrieved parties. There was the question of territorial jurisdiction- where the offence occurred or where the transaction took place, more so in relation to extra-territorial jurisdiction where the act or its effects fell outside the remit of Ugandan courts. Another pertinent question for the courts would be the applicability of existing laws on electronic transactions like the Computer Misuse Act to digital assets whose ownership was not always easy to ascertain.

Justice Adonyo concluded, by saying that in his view, determining the type of policy, its purpose and who should make the policy, and at what level-national, regional or international, was an ongoing process. Equally important, however, were the appropriate remedies that the courts could give to aggrieved parties in the case of a breach. The latter was an area that required input from several stake holders in the Justice, Law and Order Sector including the Law Reform Commission.

8.2 Uganda Revenue Authority, Mr Solomon Rukundo[45]

Mr Rukundo, began his presentation by explaining that cryptocurrencies were not being taxed in Uganda even though some people made considerable profits through their usage. Non-taxation arose because the Uganda Revenue Authority (URA) was yet to pronounce itself on the status of cryptocurrencies which meant that users, investors and businesses were not certain about whether they had to pay taxes or not. This was unlike other countries like the United States where in March of 2014, the United States Internal Revenue Service (IRS) announced that it would treat cryptocurrencies as 'property' for tax purposes.[46] The IRS treats cryptocurrencies as an asset in the hands of the owner, similar to stocks or bonds.[47] A US taxpayer who held cryptocurrencies for more than one year would be deemed to own a long-term capital asset, which would attract capital gains tax at the disposition of the property.[48]

[45] https://www.ura.go.ug/index.jsp
[46] IRS, *IRS Virtual Currency Guidance: Virtual Currency Is Treated as Property for U.S. Federal Tax Purposes; General Rules for Property Transactions Apply* (March 25 2014) https://www.irs.gov/newsroom/irs-virtual-currency-guidance
[47] Roman, José Andre, "Bitcoin: Assessing the Tax Implications Associated with the IRS's Notice Deeming Virtual Currencies Property", 34 *Review of Banking & Financial Law* 451-457 (2015) at 453
[48] *Ibid*

If cryptocurrencies were performing an economic function, whether as a store of value or a medium of exchange, this had tax implications.[49] Despite the legal uncertainty surrounding cryptocurrencies, they were nonetheless subject to income tax. He cited a Kenyan case which held that regardless of the legality of the source of income, it was still taxable.[50] A similar approach had been adopted by other jurisdictions around the world.[51] Under the current legal regime, arguably cryptocurrencies were taxable under Ugandan law. URA could also issue practice notes setting out its interpretation of the tax laws for purposes of clarity.[52]

One possible tax was Income Tax paid on chargeable income.[53] The Tax Procedures Code Act 2014 (TPC) provided for a self-assessment tax regime,[54] where tax payers were required to file returns monthly or biannually[55] based on business income, employment income or property income[56]Whether the income generated took the form of regular fiat currency or cryptocurrencies, a portion of that income was still owed as taxes to the Government of Uganda. The challenge with taxing these individuals and companies, however, was administrative, not legal. The tax authority simply needed to build its capacity to reach these individuals and companies and to educate them on their tax liabilities. In theory, it was possible to secure compliance with tax law, but one needed to bear in mind that online exchanges and related businesses were difficult to trace online, and yet the law envisaged a physical business presence.[57]

A second possibility was Capital Gains tax (CGT) payable under section 78 of the Income Tax Act. CGT was payable following the disposal of a capital asset such as land or company shares, in which the gain was the excess of the consideration received at disposal over the cost base of the asset; a tax on the profit made upon disposal of an asset which has increased in value. By contrast, a capital loss was the excess of the cost base of the asset over the consideration received at disposal.[58] As the law stood, cryptocurrency users would be liable for CGT. The cost base of the cryptocurrency would be calculated upon acquisition as determined by the value of the cash, and the Fair Market Value (FMV) of the goods or services exchanged for the cryptocurrency. However, calculating these values required detailed record keeping about the use of currencies. Worse still, the pseudonymous nature of cryptocurrencies posed a challenge to the tax administrators who did not know which individual made a gain unless they declared this in their self-assessment of income.

Cryptocurrencies also appeared to qualify as supply of services under the Value Added Tax Act Cap 349 (VAT Act). Under section 16(2) (d) of the VAT Act, electronic services delivered to a

[49] Dong He *et al*, *Virtual Currencies and Beyond: Initial Considerations*, IMF, 30, (January 2016) https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf
[50] *Republic v Kenya Revenue Authority ex parte Yaya Towers Limited* Kenya CACA 55 of 2009
[51] *CIR v Delagoa Bay Cigarettes Co Ltd* [1918] TPD 391; *Mann v Nash* 16 TC 523, *Southern v AB Ltd* 18 TC 59
[52] Section 44 of the TPC Act 2014
[53] Section 4 of the Income Tax Act Cap 340 [ITA]
[54] Section 20 of the Tax Procedures Code Act 2014 [TPC Act]
[55] Section 15 of the TPC Act 2014
[56] Section 17(1) of the Income Tax Act Cap 340
[57] Section 78 of the ITA
[58] Section 50(2) of the ITA

person in Uganda qualified as a taxable supply of services. The supply of virtual goods like computer files was considered by some like Jones and Basu as a supply of services.[59] Using this analogy, services offered by crypto businesses electronically were prima facie subject to payment of VAT, and penalties could arise where a person failed to register for taxes,[60] failed to furnish returns,[61] or failed to keep proper records.[62] In countries like the United Kingdom, for example, in the case of *Navee Limited*[63] the company engaged in sporadic trade using Bitcoins, but did not pay VAT. Navee lost the challenge against a tax penalty and a refusal of accept input tax. Her Majesty's Revenue and Customs (HMRC) had successfully argued that as Navee had fraudulently evaded VAT, it could not claim a right to deduct input tax.

Another problem was the potential for tax evasion on a large scale given the pseudonymous nature of cryptocurrencies. With users having multiple accounts but without providing significant identifying information, making it difficult to trace these earnings back to the service provider.[64] For example, despite an elaborate explanation by the IRS regarding how to account for income earned through cryptocurrencies, in February 2018 it was reported that only 7 percent of the estimated cryptocurrency users in the USA were accounting for the massive gains[65] made in 2017.[66]

In conclusion, a tax regime that hindered cryptocurrency use would in Mr Rukundo's view discourage legitimate use while leaving illicit users largely unaffected. Indeed, some legitimate users would end up becoming illicit users. At the policy level, the URA needed to issue a practice note clarifying the tax consequences of dealing in cryptocurrencies. The practice note would consider the various options available and their consequences and give cryptocurrencies an air of legitimacy by offsetting the impact of the Bank of Uganda caution issued in February 2017. However, compliance costs would increase because additional efforts would be needed to uncover the financial information of virtual currency users in order to verify their tax declarations. Partnering with tax agencies from other jurisdictions was one way in which risks of tax non-compliance could be dealt with.

[59] Richard Jones and Subhajit Basu '" Taxation of Electronic Commerce: A Developing Problem" *International Review of Law Computers & Technology* (2002) (16) 1, 35-52.
[60] Section 52 of the TPC Act 2014
[61] Section 54 of the TPC Act 2014
[62] Section 56 of the TPC Act 2014
[63] *Navee Ltd v Revenue and Customs* [2017] UKFTT 602 (TC) (03 August 2017)
[64]Omri Marian, "Are Cryptocurrencies Super Tax Havens?" *Michigan Law Review First Impressions* (2013) 112, 38 - 48
[65] Robert A Green, "Cryptocurrency Traders Owe Massive Taxes on Fat 2017 Gains," *Forbes,* 9 January 2018 at: https://www.forbes.com/sites/greatspeculations/2018/01/09/cryptocurrency-traders-owe-massive-taxes-on-fat-gains-in-2017/#1f6ea4e55472 accessed 3 May 2018
[66] Jen Wieczner, "Bitcoin Investors Aren't Paying Their Cryptocurrency Taxes" *Fortune*, 13 February, 2018 at http://fortune.com/2018/02/13/bitcoin-cryptocurrency-tax-taxes/

8.3 BOWMANS UGANDA, MR DAVID F.K MPANGA[67]

Mr Mpanga used a jurisprudential approach to look at new ways of doing old things. Writing for example was initially done on vellum as official documents. Over the years the same document, say a bill of exchange, migrated from being written on vellum to being printed on paper. The legal effect of the official document remained the same, although the form it took varied over the years. Cryptocurrencies could be seen in much the same way- as a new form of expressing old ideas of value and exchange. Mr Mpanga also emphasised that the purpose of law was to protect citizens from harm, to prevent illegitimate and illegal businesses and to criminalises fraudulent acts. The Anti-Money Laundering Act[68] for example, reflected this purpose of the law. Any law relating to cryptocurrencies would have to fulfil this key purpose of law.

Regulation as a means of promotion and protection for innovation and deepening of financial inclusion was necessary in some industries. There was evidence that cryptocurrencies could be useful in increasing insurance penetration in Uganda beyond its current levels of one percent[69] through automatic payment systems and smart contracts.[70] Despite these innovations, at the level of policy, in particular taxation policy, there was need to question the need for new legislation or administrative measures. Policy makers also had to bear in mind the value of the Blockchain as a means of managing and regulating assets. Even in the extensive sector of agriculture which was still the backbone of the country's economy, profits still were largely untaxed.[71] If taxes were not being paid on cattle, then what about on gains made in transactions with cryptocurrencies? Determining a gain would need to be carefully considered because whether in fact there was a gain in the use of cryptocurrencies, may be questionable.

Case law would be useful as judges would need to come up with new ways to deal with these developments and innovations. Even if the law was not amended and no new law was passed, people would still go to the courts to settle their disputes. Judges would have to sieve through the facts to decide on the core issues and the long-standing legal principles would still apply. Judges could find the ingredients of a contract present in the sale or purchase of cryptocurrencies or when they are used to buy items or services. [72]This could mitigate our fears over the cryptocurrency revolution.

While it may be true that the drivers of cryptocurrencies were illegal or illicit activities such as tax evasion, money laundering and so on, participants needed to bear in mind that some time back, the main drivers in the development of the Internet were questionable activities like pornography.

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[67] https://www.bowmanslaw.com/lawyer/david-f-k-mpanga/
[68] Uganda Anti-Money Laundering Act, 2013
[69] Insurance Regulatory Authority, *Annual Insurance Market Report*, 2015 at https://www.ira.go.ug/report2015.pdf
[70] Valentina Gatteschi et al, "Blockchain and Smart Contracts for Insurance: Is the Technology Mature Enough?," *Future Internet*, 2018, at www.mdpi.com/1999-5903/10/2/20/pdf
[71] Alon Mwesigwa, "Agriculture Grows but Tax Contribution Remains Low", *The Observer*, 26 October 2016 at https://allafrica.com/stories/201610260382.html
[72] Example of *Lipisha Consortium Limited and Bitpesa Limited V Safaricom Limited* Petition No. 512 Of 2015, Kenya High Court

This was the main reason for the development of video streaming via the Internet. Many aspects of e-commerce developed to support the pornography industry and were subsequently extended beyond it.[73] The cause may have been immoral, but people were enjoying the benefits.

Mr Mpanga concluded by saying that as the technology was adapted to suit Uganda, the question of the nomenclature was important to making distributed ledger technologies more acceptable. For example, the Luganda word for 'the Internet' could be translated as '*Omutimbagano'*. The translation would of course depend on what participants concluded that cryptocurrencies actually were: securities, commodities, or currencies? Mr Mpanga suggested that the nomenclature and other legal questions would have to be decided basing on questions relating to proof of ownership and contractual rights, in short, new ways of doing old things.

8.4 BITRECO LIMITED, MR. ROBERT KIRUNDA[74]

Mr Kirunda noted that one of the major challenges to policy making was the use of the term "currencies" to describe cryptocurrencies. He wondered if it was better to describe them as a "digital assets frameworks" as this might be more representative of the nature in which they were used. Such a term might lead to less hostility from government regulators. There was an ongoing debate on this,[75] but it was important to understand how cryptocurrencies worked and the different types of tokens. There three types of crypto-tokens: Assets backed tokens, utility tokens and cash-based tokens were all distinct and functioned differently. The challenges posed by each ought to be addressed uniquely and separately.

Mr Kirunda cautioned against introducing regulation before coming up with a policy. The policy had to precede the regulation otherwise we could end up with scenarios like those of the ill-planned tax on social med which had led to protests among the public.

In developing policy, Mr Kirunda reminded participants about the disruptive but unstoppable nature of these cryptocurrencies. When the Internet was in its infancy, the idea of email seemed foreign as there were concerns about how it would impact on the post office and so on. It was viewed as disruptive technology. If email had been banned, he asked how the ban would have been enforced and successfully implemented. Now years down the road, the post office was seeing a revival as it now supported delivery of items through e-commerce done on the Internet. Policy makers he cautioned, needed to distinguish between risks and challenges. Some risks were genuine, but other concerns were just about the disruptive nature of the cryptocurrencies.

[73] Paul Rudo, "Ten indispensable technologies built by the pornography industry", *Enterprise*, 5th June 2011, at http://www.enterprisefeatures.com/ten-indispensable-technologies-built-by-the-pornography-industry/
[74] http://www.law.mak.ac.ug/users/robert-kirunda.
[75] Nathan Rose, "Crypto Assets, Cryptocurrency – What's In A Name?" *Citizens of the World*, 5th February 2018, at http://citizensoftheworld.io/crypto-assets/

8.5 CENTRAL BANK OF UGANDA, MR. ARNOLD BAGUGWAGYE, FINANCIAL MARKETS DEPARTMENT[76]

Mr Bagugwagye began by demystifying the alleged disagreement between the President of Uganda and the Governor of the Central Bank at the May 2018 Kampala Blockchain Africa conference. He explained that there was no divergence in thinking, but rather, the Head of State was only asking the Central Bank to be more flexible in its approach towards cryptocurrencies. Central banks, Mr Bagugwagye explained, were designed to function like auditors. They approached everything with professional skepticism and tried to interrogate every innovation and new financial product. The Central Bank's conservative approach was by design and was intended to protect the interest of the depositors. That said, he explained that the Governor was very clear when he said that the Central Bank was open to discussion especially around the technology of the Blockchain- the underlying technology on which the cryptocurrencies were based.[77] The Central Bank appreciated the capability of the Blockchain to enhance efficiency, and support their work, which is why they were open to discussion.

Mr Bagugwagye saw some progress in cryptocurrency regulation but pointed out that for as long as cryptocurrencies continued to be defined as a "currency" then there was bound to be a clash with Bank of Uganda, because the definition of a currency had certain characteristics such as a store of value, a medium of exchange and a unit of account.[78] The archetypical cryptocurrency was Bitcoin which had a value that fluctuated between USD 20,000 to USD 8,000 in just a matter of hours. Even though it was arguable that the Uganda shilling could equally lose value, a currency like the Uganda shilling only depreciated by a rate of about 5% per year.[79] With Bitcoin, the depreciation could go up to 60% in a very short period of time.[80] Bitcoin also failed as a medium of exchange. For something to qualify as medium of exchange it needed to be acceptable by both parties (the seller and the purchaser) in a transaction. The United States dollar, for example, was a medium of exchange across the globe because it was acceptable to parties in transactions. Cryptocurrencies were not yet fully acceptable as a medium of exchange. He noted that the Policy Makers' workshop was the start of the discussion about whether this situation could change, and whether cryptocurrencies could be considered as a medium of exchange. Perhaps in a few months' time, everyone could be using Bitcoin as a medium of exchange, but up until that point, it was not appropriate (from a banking perspective) to call it a currency. A third issue was whether cryptocurrencies could function as a unit of account; whether they were recognised as a monetary

[76] https://www.bou.or.ug/bou/home.html
[77] "Bank of Uganda Governor remarks at Africa Blockchain Conference" *Uganda Business News*, 28th May 2018 at http://ugbusiness.com/5058/bank-of-uganda-governor-remarks-at-africa-blockchain-conference.
[78] Hyun Song Shin, "Cryptocurrencies: looking beyond the hype" Bank for International Settlements, 17 June 2018 at https://www.bis.org/publ/arpdf/ar2018e5.htm
[79] Martin Luther Oketch, "Uganda Shilling depreciated by 5.5 % in 2016, says BoU," *Daily Monitor*, January 4 2017, at http://www.monitor.co.ug/Business/Uganda-Shilling-depreciated-by-5-5---in-2016--says-BoU/688322-3505632-bcgk3j/index.html
[80] For a Bitcoin history price chart since 2009 to 2018 see https://en.bitcoinwiki.org/wiki/Bitcoin_history.

measurement of the value of goods, assets or services. Although business may trade in cryptocurrencies, very few would price their products using cryptocurrencies as a measure. Most firms would still value their produces in fiat currencies. Moreover, having units of accounts measures in cryptocurrencies would cause confusion among users or investors where multiple cryptocurrencies were in operation simultaneously.

There were other concerns. Although some countries had made progress in the adoption rate of cryptocurrencies, with some like Kenya and South Africa even having cryptocurrency Automatic Teller Machines (ATMs),[81] the lack of robust mechanisms like exchange rates at which cryptocurrencies could be exchanged for fiat currency remained a problem as it was not clear what exchange rates would be used at the time of the transaction. There were also jurisdictional differences in the acceptability of cryptocurrencies, with some countries like Bangladesh declaring them illegal.[82]

In his concluding remarks, Mr Bagugwagye noted that from the regulatory perspective, there was need for further research on these technologies and their socio-economic impact, in order to better and try to understand why some jurisdictions, even those where this whole concept appears to have started, were cautious about giving cryptocurrencies legal recognition as a currency. He recommended a rethink of the word "currency" and suggested instead that it could be called something like "Crypto Uganda shilling" or "Uganda crypto shilling"- one that could be backed by the legal framework and by the state itself. The currency could then be managed in terms of its elasticity when there was a lot of it in supply. However, rebranding cryptocurrencies would remove the 'juice' from the use of typical cryptocurrency which people were holding onto in the belief that its value could likely to go in one direction-upwards.

8.6 OFFICE OF THE DIRECTOR OF PUBLIC PROSECUTIONS, MR TOM WALUGEMBE[83]

Mr Walugembe raised questions regarding the use of certain platforms for various sorts of services that could either encourage or facilitate criminal activity. The regulatory concern for policy makers was how these platforms could be regulated given that people embraced these new technologies faster than law enforcement officials working in the criminal justice system. Some

[81] Victor Kiprop, "Kenya's first bitcoin ATM up, offers instant cash purchases", *The East African*, 18th June 2018,at http://www.theeastafrican.co.ke/business/Kenya-first--bitcoin-ATM-up-offers-instant-cash-purchases/2560-4619198-146gfq8z/index.html . Also, Timothy Rangongo, "Watch: SA's first ATM for Bitcoin and other cryptocurrencies in action," 21st May 2018, at https://www.businessinsider.co.za/sas-first-cryptocurrency-atm-officially-launches-today-here-is-how-it-works-2018-5.

[82] Golam Mowla, "Central bank issues notice banning Bitcoin in Bangladesh", *Dhaka Tribune*, 27th December 2017. The Deputy Governor SK Sur Chowdhury has promised that a committee would be formed to consider ways of introducing Bitcoin in Bangladesh- https://www.dhakatribune.com/business/banks/2017/12/27/bangladesh-bank-ban-bitcoin/.

[83] www.dpp.go.ug/.

criminals were even more sophisticated than the law enforcement agencies that were trying to investigate and prosecute them.

There were five major areas where cryptocurrencies posed a risk in terms of criminal activities: tax evasion, money laundering, fraud, covert transactions and extortion. At the time of the workshop (July 2018), the Office of the Director of Public Prosecutions (DPP) had not yet prosecuted any cryptocurrency related criminal cases in Uganda, yet around the globe, criminal activities were committed involving cryptocurrencies. One such incident was in December 2017 in Ukraine where Pavel Lerner a Blockchain expert working with a UK based exchange was kidnapped and the company forced to pay one million US dollars in ransom, but in Bitcoin.[84] This case was similar to other ransomware attacks in 2017 involving criminals hacking websites of service providers and demanding for payment in Bitcoin.[85] Another example was the risk of theft of the cryptocurrency itself, even though the proponents of cryptocurrencies would argue that it was very safe and difficult for one to steal. Yet here had been reports of theft of cryptocurrencies, with one report stating that over 1. 2 billion US dollars' worth of cryptocurrencies had been stolen since 2017.[86] If such a crime were to happen in Uganda, the challenges faced by prosecutors like gathering of evidence given the attributes of cryptocurrency like anonymity, remained unresolved.

Any policies in this area would have to protect the consumers and investors who may not be familiar with how the technology works. Mr Walugembe proposed that Uganda could borrow a leaf from Japan whose Financial Services Agency now regulated cryptocurrency trading and exchanges through amendments to the Japanese Payment Services Act. All exchanges had to register with the Agency, and virtual currency exchanges were treated as "accountable" to their customers. Being accountable meant having to meet compliance requirements on know-your-customer, and anti-money laundering and terrorism financing regulations.[87] He noted that in Japan after the passing of the amendment that required cryptocurrency exchanges to report suspicious transactions, over 170 cases of suspected money laundering had been reported within 6 months.[88] In borrowing a leaf from Japan, Uganda could require the firms, businesses or individuals who traded in or exchanged cryptocurrencies to be named as accountable persons under the Anti-Money Laundering Act. That way, accountable persons had to comply with due

[84] Russia's bitcoin expert Pavel Lerner freed after kidnapping, *DW*, 30 December 2017, https://www.dw.com/en/russias-bitcoin-expert-pavel-lerner-freed-after-kidnapping/a-41975644
[85] Michael Baker, "How Cryptocurrencies Are Fueling Ransomware Attacks And Other Cybercrimes", *Forbes*, Aug 3, 2017, https://www.forbes.com/sites/forbestechcouncil/2017/08/03/how-cryptocurrencies-are-fueling-ransomware-attacks-and-other-cybercrimes/#40f60d9f3c15
[86] Gertrude Chavez-Dreyfuss, "About $1.2 billion in cryptocurrency stolen since 2017: cybercrime group," *Reuters*, 24th May 2018, https://www.reuters.com/article/us-crypto-currency-crime/about-1-2-billion-in-cryptocurrency-stolen-since-2017-cybercrime-group-idUSKCN1IP2LU
[87] Amy Castor, "How Japan Is Creating a Template for Cryptocurrency Regulation", *Bitcoin Magazine*, 11th May 2018 at https://bitcoinmagazine.com/articles/how-japan-creating-template-cryptocurrency-regulation/
[88] Jiji Kyodo, "170 money-laundering cases in Japan involved cryptocurrency in six months since April", *Japan Times*, 30th November 2017 at https://www.japantimes.co.jp/news/2017/11/30/national/crime-legal/police-say-170-cryptocurrency-laundering-cases-suspected-six-months-april/#.W37qJbhRWUk

diligence requirements like establishing a client's source of income and reporting suspicious transactions to the relevant authorities.

Mr Walugembe concluded by emphasising the importance of skills training for prosecutors and police detectives. Even the judges themselves, needed to be open to new knowledge about these technologies. However, a useful starting point was the development of strategies and policies that would protect consumers from criminal behaviour, and also prevent the platforms from being used as tools for the furtherance of criminal enterprise.

8.7 Uganda Law Reform Commission, Ms Jeroline Akubu, Ag. Commissioner of Law Reform[89]

Ms Akubu began with an observation about the sizeable proportion of people in Uganda who were interested in cryptocurrencies and the Blockchain, and the large numbers who knew little or nothing about these technologies. She underscored the need for mass education so that ordinary people to be able to understand what the policy discussions were about. Public facing policy making was important if laws were to be understood.

From the perspective of law making, regulation and policy, Ms Akubu highlighted the National Payments Bill that was discussed by the Cabinet in 2017. The Bill that was nearing completion included the principles as agreed by the Cabinet, but what was not clear was whether the Bill addressed all the issues of concern to participants. Pertinent questions included what the law or regulation ought to cover, and whether the law should take the form of an amendment to the principal legislation already in place. Other questions related to whether the existing laws were applicable to cryptocurrencies and the Blockchain, or whether sector specific laws were required.

Very few countries she noted, had specific legislation in this area.[90] Most countries which had developed a friendly approach, had welcomed cryptocurrencies and were trying to see how to work with them and how to draft laws to protect investors and other people from risks. The areas ranged from taxation, data protection, and fraud. If legislation as a regulatory tool was the preferred option for policy makers, then the jurisdictional issues that arose in cross border activities were important, as were issues relating to taxonomy, such as whether cryptocurrencies

[89] http://www.ulrc.go.ug/

[90] One notable example is Malta. On 26th June 2018, the Maltese Parliament unanimously approved three bills: Bill No 43, *The Innovation Technology Arrangements and Services Bill* which focused on registering exchanges in Malta; Bill No 44, *The Virtual Financial Assets Bill* to regulate Initial Virtual Financial Asset Offerings with new companies required to provide white papers on their technology offerings; and Bill No 45, *The Malta Digital Innovation Authority Bill*, that set up the regulatory body -Malta Digital Innovation Authority. https://parlament.mt/13th-leg/plenary-session/ps-136-26062018-0600-pm/. Freeman Lewin and Alexandra Levin Kramer, "Bright Future Ahead for Global Blockchain Legislation", *Blockchain Blog*, https://www.ckrlaw.com/blockchain-blog/2018/07/06/bright-future-ahead-for-global-blockchain-legislation/

could be categorized as currency. In Germany, for example, cryptocurrencies were not classified a commodity, a stock, or as legal tender, but as private money.[91]

In her concluding remarks, Ms Akubu informed participants that the Uganda Law Reform Commission was developing a law reform programme which intended to cover all the areas of legislation for the next five years. The regulation of distributed ledger technologies would fall within this programme.

9 PLENARY SESSION DAY 1- SUMMARY OF POLICY ISSUES DISCUSSION

The Plenary session identified four main policy gaps; issues of public engagement; and regulatory matters.

1. First was the content gap on the concepts of and taxonomy of the new technologies. The definition remained one of the main challenges especially if technologies had to be defined in a way that the public could understand. Such definitions included what the technology did, how they functioned and how they differed from other technologies. For example, how cryptocurrencies differed from regular currencies. Participants recommend that a clear nomenclature was needed- one that was understood by the public.
2. The second gap was the legal gap. It was agreed that the scope of the existing law needed to be clear including on issues of extra territorial jurisdiction and data protection. The Data Protection Bill was considered as illustrative of some of these gaps.
3. The third gap was the knowledge gap which existed not just in the public sector but also in the private sector. Participants noted that although popular belief was that those who worked in the public sector did not know much about emergent technologies, in reality, many civil servants and public servants were quite knowledgeable about them. Some public and civil servants who had attended workshops and training on cryptocurrencies had noted that there was a lot of misinformation at these sessions. Some presenters from the private sector told lies to the unsuspecting public about the nature of emergent technologies and their capacity to transform people's lives. The private sector did not appear to fully grasp the concept and the functionalities of the technologies involved.
4. The fourth gap was the skills gap which was mentioned by the DPP`s office. It was imperative that professionals working in law enforcement and in related sectors like the judiciary obtained the relevant skills to handle technologically enhanced matters.
5. Regarding public engagement, an important question was where and how the public would be sensitised- in the villages or only online? Equally important was the message that went out to the public which needed to be contextualised and harmonised in a simplified manner that targeted the different regions. In one region, for example, cattle might be viewed as an asset, while in another region, millet was the more valuable asset. The messages to

[91] Matt Clinch, "Bitcoin recognized by Germany as 'private money'", *CNBC*, 19 Aug 2013 at https://www.cnbc.com/id/100971898

these different communities needed to be framed in appropriate language and terminology that could be validated and integrated into the policy paper that could in turn be used for public consultations.

10 DAY 2: PANEL 2: BLOCKCHAIN AND REGULATORY ISSUES

10.1 UGANDA COMMUNICATIONS COMMISSION, MR JULIUS MBOIZI, SENIOR LEGAL OFFICER[92]

Speaking as a technology regulator, Mr Mboizi focused on the Blockchain. He explained that the Uganda Communications Commission (UCC) looked at three aspects of the technology: the integrity of the platform, data privacy and data protection, and the inter-operability of systems. UCC used a service and technology-neutral approach to regulation which meant that they did not look at the specific technology or specific service. Instead, the UCC considered whether that service or technology was offered in a safe, secure and reliable manner. The UCC looked at whether the proposed regulation was obsolete. By applying a principles-based approach to regulation, UCC was able to 'future proof' the regulation to ensure that it did not become obsolete or be overtaken by advancements in technology.

Some of the principles to be considered with any regulation were those relating to harmonisation which required some sort of private-public sector collaboration across telecom companies, as well as tax, finance, insurance and legal sectors. That way, the different government agencies could speak to each other. Harmonisation could also occur across borders at the regional and continental level. A second principle was proportionality. Too much regulation too soon, could suffocate innovation. However, regulators could not just leave everything to run in an unregulated manner because the consumers would remain exposed to unscrupulous businesses. Third was the neutrality principle which required a focus on how a service was offered, rather than the type of service being offered.

The UCC was looking to use Sandbox regulation as the best alternative for the Blockchain. The sandbox regulation was a pilot environment or test environment in which compliance requirements were not be as stringent as those requirements that applied to existing traditional technology applications. For example, requirements in terms of costs and the proof of concept were much lower. The idea was that whoever had products which showed some potential could apply and could be permitted to operate in the market, subject to restricted conditions and modifications. After a given period, the technology regulators would have built enough capacity and knowledge to understand how to deal with the product on offer.

[92] https://www.ucc.co.ug/

Mr Mboizi concluded by showing how the sandbox regulation approach dealt with potential risks and benefits including the scope and classification of products and services that would be accommodated in that sandbox. The UCC considered the eligibility criteria for players as well as the rules of the scheme in terms of oversight and control obligations, risk management controls, customer protection safeguards and customer redress mechanisms. UCC also looked at reporting requirements both interim and final, expiring and revocation of approval and the duration that a company could be the sandbox environment. At the end of the test period, either the company moved out of the sandbox and was offered a licence, or its application was rejected if the product was deemed too risky to be let out into the market. UCC was looking at possible regulatory exemptions and incentives involving spectrum, numbers and other resources that could be used to incentivise people to join the sandbox. Finally, UCC was also looking at the limitations of operation within the sandbox for example, determining how many customers any regulated business could bring on board when testing the product, and the maximum value of transactions that one would be allowed to engage in.

10.2 Electronic Counter Measures Unit, Uganda Police Force,[93]
Mr Dan Munanura, Assistant Commissioner of Police

Mr Munanura pointed out that from the outset, cryptocurrencies were created to avoid regulations. Cyber criminals always sought anonymity such as hiding their Internet Protocol (IP) addresses or using fake IP addresses to commit a crime. Use of fake IP addresses suggested that they were in fact in another country. Whereas anonymity on its own was not wrong, it did make it easier for some crimes to be committed such as terrorism financing, money laundering, drug trafficking, ransom collection, forgery, and the hiring of assassins. Hacking was also easier to facilitate as illustrated by recent Distributed Denial of Service attacks. For those cryptocurrency users who were not conversant with information security, their private keys could be used to transfer the cryptocurrencies from their wallet accounts.

In Uganda, people were taking advantage of the popularity of cryptocurrencies and were creating fake companies which purported to deal in them. Within Kampala alone, the police had handled over 100 companies which are involved in that kind of fraud. Criminals had fleeced a lot of money from unsuspecting citizens. The police had also received reports of cases involving popular cryptocurrencies like the Bitcoin, but most of these involved people who had not taken care of their private keys. This was because many users/investors were not conversant with computers and so they opened cryptocurrency accounts with the help of agents to whom they entrusted their private keys. A fraudulent agent could then easily transfer some coins from the customer's wallet. So far, the Ugandan police had not yet successfully investigated to conclusion, any cryptocurrency related case. However, in Denmark, the police had succeeded in getting

[93] https://www.upf.go.ug/cyber-barometer/

convictions in cases.[94] Afripol (the African Police Cooperation Organisation), the United States Federal Bureau of Investigations (FBI) and Interpol had all taken an interest in cryptocurrencies, and Uganda had collaborated with Interpol in cases relating to online child exploitation and successfully tracked down the culprits involved.

Mr Munanura concluded his talk by offering some recommendations on policy:

(1) Traders should be registered with regulators to enable the police get information about that accounts involved in fraudulent money transfers.
(2) Cryptocurrency traders should comply with the Anti-Money Laundering (AML) requirements. However, the requirements should provide for real names and exclude pseudonyms which makes criminals difficult to trace.
(3) Agencies of government involved in prosecuting and investigation should be offered relevant training.
(4) Tracing technology should be purchased to help with investigations.
(5) Mass sensitization on information security should be carried out to enable people learn how to secure their private keys and passwords.

10.3 School Of Computing And Information Technology, Makerere University, [95]Mr. Michael Kizito

Mr Kizito began by outlining the distinction between the Bitcoin which runs on the Blockchain technology, and the Blockchain- a distributed ledger technology or file system that kept copies of files of the participants who agree on the changes by mutual consensus. The files consisted of blocks with each block having a cryptographic signature of the last (previous) block, making an immutable record. The Blockchain's secure value transfer features could enable the information technology revolution to penetrate major sectors including finance, economics and law, potentially rendering the existing banking and related systems obsolete.[96] Although information technology had been in use for a while now in these sectors, the sectors had not completely been transformed. Mr Kizito pointed out that some commentators argued that the Blockchain was a solution that could replace many inefficient information systems like patient records, property transfers, legal contracts and payments systems. Many of these systems had one control system and in case of no backup they could fail due to a server failure or an attack from hackers. Blockchain systems could offer a solution as they were highly decentralised and distributed in nature. The records were saved on several servers and computers around the globe, which eliminated or greatly reduced the risk of a central point of failure.

[94] Már Másson Maack, "Danish police first in the world to hunt down criminals using bitcoin", *The Next Web*, 21st February, 2017, https://thenextweb.com/eu/2017/02/21/danish-police-hunt-down-criminals-using-bitcoin/
[95] https://cit.mak.ac.ug/
[96] Melanie Swan, "Blockchains may replace the institutions that safeguard commercial activities", *London School of Economics Business Review* Blog (2015) available at: www.blogs.lse.ac.uk/businessreview/2016/03/31/blockchains-may-replace-the-institutions-that-safeguard-commercial-activities

Some financial institutions in the USA and Europe were in the process of implementing private ledgers. These were controlled application of technology, where the user identity was known and confirmed. Conversely, the public ledgers were censorship-resistant pseudonymous ledgers where the user or wallet was not traceable to the individual executing the transaction. In other words, the private ledgers were permissioned, while the public ledgers are permissionless. The private groups could implement business rules such as transactions which take place only where no more than two parties had endorsed them, and where another transaction had been completed before the next one could take place. For example, in the private sector in the USA where the ownership and origins for goods are mapped out by distributed ledgers, thee was a consortium- R3 CEV of over 70 large financial institutions dedicated to the development of standards for the industry.[97] The NASDAQ had also adopted the technology to record the trading in securities of private companies They developed Corda- a platform that uses permissioned Blockchain, built with the financial industry's context in mind, and aimed to avert some of the problems the original Blockchain posed to the finance industry. This consortium started in 2014 but in 2016 a number of financial institutions left the consortium. Despite some players leaving the consortium, it continued to develop Corda and get new players coming on board. These changes showed the fast-moving pace of the sector.

In conclusion, Mr Kizito recommended the need for mass sensitisation of the public to get them to understand permissionless distributed ledgers and to have more confidence in the use of the technologies. Even so, regulation was necessary to protect consumers. Regulatory intervention ought not to be highly restrictive because placing many limitations at this stage would limit innovation and inhibit growth. Conversely, the US case of *Liberty Reserve*[98] and the conviction of the founder of the shadow trading site called Silk Road[99] which was used for money laundering and other crimes, showed that the regulatory framework should focus instead on consumer protection in relation to cryptocurrencies and prevention of crimes like money laundering.

10.4 Blockchain Association Of Uganda[100], Mr Kwame Rugunda

Mr. Rugunda thanked UNAFRI and the University of Birmingham for breaking the ground on the discussion regarding the regulation of cryptocurrencies and Blockchain, thereby easing the way for those with some interest, some knowledge and some enthusiasm in the sector. Mr Rugunda

[97] Rob Morgan, "It's all about the blockchain: Amid the hoopla over bitcoin and other virtual currencies, it's the underlying documentation platform that's revolutionizing transactions", *ABA Banking Journal* (2016) at: www.bankingjournal.aba.com/2016/03/its-all-about-the-blockchain

[98] Jonathan Stempel, "Liberty Reserve founder must face $6 bln laundering case in U.S"., *Reuters*, 24th September 2015, https://www.reuters.com/article/usa-cybersecurity-liberty-reserve-idUSL1N11T2G420150923

[99] Andy Greenberg, Silk Road Creator Ross Ulbricht Loses His Life Sentence Appeal, *Wired*, 31 March 2017, https://www.wired.com/2017/05/silk-road-creator-ross-ulbricht-loses-life-sentence-appeal/

[100] https://www.baoug.com/

began by setting out the context and discussions of the May Conference- the largest event on Blockchain in Africa. One of the highlights was the President of Uganda's speech was when he urged Blockchain developers to translate complex concepts around the Blockchain into the ordinary language of *wananchi.*[101] Translating policy into local languages was equally relevant to the issue of public awareness.

Mr Rugunda stressed that the Blockchain was a truly transformational technology which was why the World Economic Forum in January 2018[102] focused on (among other things) this innovation dubbed the fourth industrial revolution.[103] Blockchain technology, could enable Uganda to move to middle income status[104] in a much more rapid fashion. He also explained that a company called Binance, the world's largest cryptocurrency exchange, had announced that it would be setting up offices in Uganda.[105] Regulators had also taken notice and now wanted to understand for example the nature of a cryptocurrency exchange and what it did, and how people could use fiat currency- the Uganda shilling, to buy cryptocurrencies on exchanges around the world. This could mean a huge global demand for the Uganda shilling and a boost to Uganda's economy.

Mr Rugunda concluded by calling upon parties to contribute towards the work of the Task force where issues of anti-money laundering and regulatory policy dynamics would be captured in the mandate of the task force. He expressed his desire for the Working Group to make the most of their contribution for the development of the country.

11 PANEL 3: SOCIO -LEGAL POLICY DISCUSSION POINTS

11.1 KTA ADVOCATES AND SOLICITORS, MR KENNETH MUHANGI[106]

Mr Muhangi focused on the question of whether new regulation was needed, or whether any regulation was needed at all, and on the question of the current legal position in Uganda. In 2017 he noted; the Central Bank of Uganda issued a notice against the cryptocurrency One Coin[107] warning that it was similar to a Ponzi scheme.[108] The Bank of Uganda notice was to the effect that anyone who was dealt with One Coin was doing so at their own risk. However, perhaps because

[101] Citizens
[102] Blockchain, https://www.weforum.org/agenda/archive/blockchain/
[103] World Economic Forum, Blockchain Beyond the Hype: A Practical Framework for Business Leaders, April 2018, http://www3.weforum.org/docs/48423_Whether_Blockchain_WP.pdf
[104] One of the goals of the Uganda government is to have citizens attain middle income status by the year 2020: Uganda National Planning Authority, "Roadmap to Attaining Middle Income Status for Uganda", http://npa.ug/wp-content/uploads/ROADMAP-MIDDLE-INCOME-STATUS-FOR-UGANDA.pdf
[105] Official Launch of Binance Uganda Fiat-Crypto Exchange, Binance, June, 2018, https://support.binance.com/hc/en-us/articles/360006584151-Official-Launch-of-Binance-Uganda-Fiat-Crypto-Exchange
[106] https://www.ktaadvocates.com/
[107] https://www.onecoin.eu/en/
[108] Warning to the general public about 'One Coin Digital' Money operations in Uganda, Bank of Uganda, February 14, 2017, https://www.bou.or.ug/bou/media/statements/One-Coin-Digital-Money-operations-in-Uganda.html

Uganda is a defiant society, despite that warning, the use of other cryptocurrencies and the talk about the Blockchain had since tripled.

The Blockchain had a number of benefits, some of which had already been mentioned. One important example was the land registry where there was a lot of fraud which was being investigated by the Commission of Inquiry into Land Matters.[109] The inherited Torrens system was adopted from the common law system, but it required a certificate of title as conclusive proof of ownership. However, the nature of the land registry (paper based) was such that it was easy for people to forge these titles and forgery had been happening over time. The Blockchain offered a unique code for each property and this code was linked to a smart key which was only held by the owner. Transfer of the property would require the surrender of the smart key by the owner and without it, a transfer of property could not be effected. The use of Blockchain to record property transactions could also produce effective property management as information could be reviewed in real time with less management time required. For instance, recently, the Ministry of Lands had issued a notice stating that to do any land transaction, the lawyer must visit the land office with their client.[110] This procedure was very impractical in the sense that for most clients a lawyer was meant to assist them effect the transfer of their land without the client having to physically visit the land registry. Such challenges can be dealt with by adopting the Blockchain technology, but also reviewing the law that governed the areas where the Blockchain would operate.

Mr Muhangi explored the question of the need for regulation in Uganda. He looked at several laws like the Electronic Transaction Act[111] which governs electronic transactions, the Computer Misuse Act[112] and the Electronic Signatures Act.[113] All three Acts provided a seemingly comprehensive legal framework for electronic transactions or e-commerce in Uganda. The Electronic Transactions Act (ETA) gave legal effect to electronic transactions and provided for the use and facilitation of electronic transactions. The Electronic Signatures Act gave legality to digital signatures. An expansive reading of the texts suggested that Blockchain was covered under those two acts. Even though none of the Acts mentioned the word “Blockchain” or the word “cryptocurrencies”, they mentioned electronic transactions and went into detail about automated transactions including the definition of a digital signature.

In his view, there was no need for new legislation, but there was a need for a policy or guidelines. The main thing was to see how the Task Force would conceptualise how the Blockchain could be

[109] Ephraim Kasozi and Jalira Namyalo, “Bamugemereire probe gets 18 months extension” *Daily Monitor*, 10th May 2018, at https://www.monitor.co.ug/News/National/Bamugemereire-Museveni-land-Bosco-Suuza-Uganda-/688334-4555238-juuyl/index.html. Also watch “Land commission resumes hearing” *New Vision*, 24th July 2017, https://www.newvision.co.ug/new_vision/video/1458381/land-commission-resumes-hearing

[110] Department of Land Registration, *Guidelines on Deposit of Documents for Registration at the Ministry Zonal Offices*, Ministry of Lands Housing and Urban Development, 2nd July 2018, http://mlhud.go.ug/wp-content/uploads/2015/09/PN-4.pdf

[111] Electronic Transaction Act No 8 of 2011

[112] Computer Misuse Act No 2 of 2011

[113] Electronic Signatures Act No 4 of 2011

used in individual's day to day transactions, and in the government's day to day work. Introducing a strict legal and regulatory framework could also help regulators identify and remove criminal elements or illegal schemes.

In relation to cryptocurrencies, Mr Muhangi suggested that it was possible for the Bank of Uganda to include them under Agency Banking, since cryptocurrencies could be lent or exchanged with local currency. This has been done in Germany, when in July 2013, when Bitcoin Deutschland GmbH, the company that manages the exchange platform Bitcoin.de, entered into a partnership with Fidor, a German bank, in order to provide banking services to Bit-coin.de clients.[114] Regulation could also widen Uganda Revenue Authority's capital gains and value added tax collections, if clear taxation policies/guidelines were introduced. Most importantly, Initial Coin Offerings (ICOs) regulation, crypto-exchange oversight and legal scaffolding for integrating or onboarding institutional investors into the crypto markets would be key to promoting the capital markets and innovation eco-systems.

In conclusion, Mr Muhangi stated that for cryptocurrencies like the Bitcoin to be fully relevant to e-commerce and to be adopted by Ugandans and Africans at large, clear rules were required, along with governmental acceptance. This might be formal acceptance of Bitcoin as a form of legal tender or as a formally recognised form of currency that could be used in trading.

11.2 Makerere University School of Law, Associate Professor Ronald Kakungulu Mayambala[115]

Professor Kakungulu identified several issues relating to data protection and privacy that policy makers and regulators needed to pay attention to.

The first one was the purpose limitation principle. When data was collected, there had to a limitation on the data collected. In addition, the data had to be obtained lawfully and using fair means which included explaining to the data subject the purpose for which the data was collected. The second was that the purpose for which the data was required had to be clear and consent of the data subject had to be sought. For example, those persons who registered with the National Identification Registration Authority (NIRA) to get a national Identity card, ought not to have had their personal data transferred to another public body for a different use- like updating the electoral register or for the use of marketing of data. Explicit consent of the data subject for that data to be used for a different purpose ought to have been sought. Data must be used for only that purpose for which it was given (limitation principle). In fact, under Section 18 of the Computer Misuse Act, it was an offence to use data for purposes other than that for which it was originally given. This

[114] See https://bitcointalk.org/index.php?topic=253600.msg2698395#msg2698395 – for a translation of the Agreement. Maria Santos, "German Fidor Bank teams up with Bitcoin.de to offer instant Bitcoin transactions" 2nd January 2018 at https://99bitcoins.com/german-fidor-bank-teams-bitcoinde-instant-bitcoin-transactions/

[115] http://www.law.mak.ac.ug/users/ronald-kakungulu-mayambala#profile-staff

was why the request by the Uganda Revenue Authority for customer information from the banks led to a clash between Ugandan banks and the Revenue body because the bank's confidentiality rules did not permit this sharing of information for taxation purposes. [116]

The other principle was about the security of the information, but this was subject to both the limitation and the lawful retention rule. Sometimes the information requested was such that it was redundant as was far more than was necessary for the processing of the data. Then the other question was for how long this information should be retained- it could only be retained for as long as was necessary. In terms of data protection, some of these cryptocurrencies operated anonymously, yet the data related to a living identifiable person. Protection of data was inextricably linked to duration for which data could be retained legitimately, and for what purpose. The use of pseudonymous data was more complex because although some details were anonymised, how the data would be protected needed to be clarified.

Finally, cross border transactions meant that there was need to investigate if each of the countries had an adequate law on data protection, or else personal data could be shared illegally or with counties with weak legal data protection regimes. Attention needed to be paid to the storage of data in the European Union, following the passing of the General Data Protection Regulation (GDPR) effective in 2018.[117] If a person in the EU had their data transferred to Uganda under a cryptocurrency or blockchain mechanism, it could raise legal challenges as Uganda did not have a robust data protection framework that provided adequate safeguards for the transfer of personal data as of July 2018.

Associate Professor Kakungulu- Mayambala considered what laws could be relied upon in the prevailing circumstances where there was no law on data protection. He suggested that Article 27 of the Constitution could be stretched to data protection.[118] Alternatively, Section 18 of the Computer Misuse Act could be applied. He also cautioned against the duplication of roles between regulators like the UCC and the National Information Technology Agency (NITA) which left the question of data protection unresolved. He concluded by stating that in the absence of data protection policy (and laws), one could only rely on the good will of data processors to do the right thing.

[116] Stephen Kafeero, "Banks to sue URA over customer data" *Daily Monitor*, 8th April 2018 at https://www.monitor.co.ug/News/National/Banks-sue-URA-customer-data/688334-4376834-uv2s8pz/index.html
[117] https://gdpr-info.eu/. See for example Chapter 5 GDPR on the transfer of personal data to third countries.
[118] Article 27 of Uganda's constitution protects the right to privacy of a person's home, correspondence, communication, or other property.

11.3 CUSTOMARY FRAMEWORKS, DR. MAUREEN MAPP, BIRMINGHAM LAW SCHOOL, UNIVERSITY OF BIRMINGHAM[119]

Dr. Mapp addressed the question of cultural transformation of regulation. She pointed out that the conceptualisation of law as the yard stick by which any regulatory, policy or legal measures were evaluated as legitimate, proportionate, and leading to fair outcomes, was under challenge. Policy makers (and law makers) needed to ask themselves whether law could accommodate an alternative approach to justice- one that had its own notion of legitimacy, legality, proportionality and fair outcomes. In so doing, the policy framework would need to embrace a different yardstick – one that acknowledged the private ordering of norms based on the relationship between individuals, and that accommodated a relational context of customary (traditional) conceptualisations of legitimacy, proportionality and fair outcomes.

In localised societies, the legitimacy of any regulation was not always predicated on the command of a higher sovereign, more so in close knit 'stateless' or acephalous societies. Local 'buy-in' was required under customary normative frameworks which norms were usually subject to public debate and approval. Similarly, the proportionality of the measures was subject to public scrutiny- in short, not dictated by a sovereign. Fair outcomes of disputes resolved under customary laws and procedures had a focus on compensation to the aggrieved parties and on achieving social harmony (reconciliation) within the society. This was quite unlike the formal system where regulation was framed around legal tenets where law was written down, and where culpability and sanctions were framed in terms of individualism. An individual if found guilty of committing a crime was always convicted and punished as an autonomous individual. The legal system would not recognise a collective approach to culpability or to sanctions, whereas a close-knit community could accept culpability and, in some situations, punishment on behalf of the offender. It was difficult to see how the legal system could accept any sanction-in particular a ritual, as obligatory, be it reconciliatory or therapeutic and involving spiritual intervention.

Equally important was the public's understanding of money as distinct from the conventional attributes of money, that is to say money as a medium of exchange that could not be owned by a single individual. To some people, particularly those who lived in rural areas,[120] money was perceived in relational terms- as a communal asset that could be owned by members of a family, those related by kin, or the wider community. The question was whether the state could recognise the idea of money based on this private ordering of norms and values based on the relationship between individuals, on a par with that of formal system. This topic was still a moot point and open to debate.

Another area for consideration was the potential for the Blockchain to help record monetary transactions that aimed to benefit such close-knit societies including clan and lineage based

[119] https://www.birmingham.ac.uk/schools/law/staff/profile.aspx?ReferenceId=82776
[120] About 75% of Uganda's population live in rural areas while about 25% of the population live in urban areas (State of Uganda Population Report 2017 citing Uganda Bureau of Statistics report for 2014).

societies[121] or to help an individual to meet their social obligations, and to provide transparency about the transactions [122] in the case of a dispute. In this scenario, all the money transfers would be recorded on the Blockchain and any dispute would be resolved in a transparent manner as the transactions could be seen and verified on the distributed ledger. To roll out this programme required leveraging mobile phones and technology in order to support community living. The clan could have private permissioned Blockchains (or shared ledgers) probably with some centralisation or de-centralisation to mirror that of clan or lineage control mechanisms. What mattered was that all the members of that close-knit society, would be able to trace the money, follow up those who may have misappropriated the money, and arrange for refunds and for any reconciliatory rituals, where required.

To illustrate the problem, Maureen drew on her experience at a clan meeting that she attended in June 2018. The meeting established that friends and relatives clubbed together and via a mobile money service, transmitted money for funeral expenses (*kika*, *mabugo*) to different members of the bereaved family. However, some members of the bereaved family conspired to steal the money- two million Uganda shillings (about $ 571). The resulting shortfall meant that some funeral expenses like food, water, and marquee hire, were met by other family and clan members, some of whom had already contributed towards the funeral fund comprising the missing two million shillings. After the burial, the *Pido*- the equivalent of a Probate hearing was held by the clan during which the deceased's assets, liabilities, and funeral expenses were discussed, and the issue of the missing millions came up. Some members of the bereaved family refuted the claims that they had misappropriated the money and refused to refund it, rejecting in the process the jurisdiction of the clan court. The clan decided that if the money was not reimbursed to the bereaved family, then a meeting would be held before the end of 2018, at which a decision would be taken. Possible outcomes included a reimbursement of the 2 million shillings to those who 'loaned' it and having a reconciliation ritual of *Kayo Choko* (bite the bone) as the case involves only family members. The worst-case scenario was to ostracise the offenders from the clan. The aggrieved parties could of course appeal the decision to the clan appellate bodies like that of the *Ssaza, Gombolola*, or the final appeal court.

Dr. Mapp concluded by calling for a 'community tech' to help automate the clan's financial and regulatory processes in a manner that was not dissimilar to the way in which automation was used to aid regulation in Financial Technology (fin tech) and Regulatory Technology (reg tech). Community tech could help clan courts and other traditional bodies to automate clan processes involving the transfer and payment of money for clan dues like funerals and to monitor compliance. Mobile money had already led the way by enabling people transfer money, but the transactions were not as transparent as those on the Blockchain. Given that several clan leaders and traditional leaders were literate and coming from diverse walks of life including court clerks, bankers, and teachers, the use of community tech was not a far-fetched idea. A starting point was a policy that

[121] Matthew Davies, "The Archaeology of Clan- and Lineage-Based Societies in Africa", in Peter Mitchell and Paul J. Lane (eds) *The Oxford Handbook of African Archaeology* (2013, Oxford University Press), on the nature of and complex stratification among African clan and lineage-based societies, including their relative ideologies and values

[122] Don Tapscott and Alex Tapscott, *Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money* (2016, Porfolio/Penguin, Random House, New York) define the Blockchain as a digital ledger of economic transactions that could be programmed to record virtually everything of value, not just financial transactions.

identified the benefits and the risks of automating some clan processes. To do this, clans need to open up and work closely with companies like those in the Blockchain Association of Uganda and with cryptocurrency merchants and businesses in order to develop community friendly products that facilitated the work of the clan leadership, and hopefully would suit the needs of the localised and rural based population.

11.4 Professor Eric Kibuuka (Criminologist)

Professor Kibuuka began by underscoring the important of the workshop as it brought together Blockchain and cryptocurrency enthusiasts and those who were still struggling to understand the concept of Blockchain technology, distributed ledger technologies, cryptocurrencies and the like. These technologies were a social fact- something that was in existence; something that affected people including influencing their thoughts and feelings; their experiences and interactions- ultimately the social order in which people existed. Technologies were growing on an industrial scale that benefitted those who used it. However, alongside the beneficiaries were those victims of scams and fraud resulting from the illicit use of the technologies. A criminologist's interest was focused at what caused or brought about crime, the perpetuators, their victims, and how society could deal with the perpetuators in a manner that was not unnecessarily disruptive to the social order.

Professor Kibuuka narrated a story that went back two years ago (2016), when two respectable people from a reputable organisation approached him and tried to convince him to invest in a new venture in which he would allegedly reap huge profits. He was asked to invest $2,000 (two thousand dollars). One of his relatives urged him to invest, but he declined saying he did not have that kind of money to spare. A year later this organisation ran into financial difficulties and all those who invested with the company lost their money. The respectable gentlemen kept assuring the victims that one day they would get their money, but this seemed unlikely to happen. This example showed that although there is greater innovation and wider range of use of the technologies, but as Frederick Engels once said, "…the sword of enthusiasm is just as good as the sword of genius".[123] In that sense, a criminal was equally a genius just like those who were enthusiastically inventing these technologies. The only difference was that instead of using ingenuity for productive purposes, the criminal used ingenuity to defraud the unsuspecting members of the public.

As a researcher for UNAFRI, Professor Kibuuka expressed their excitement at the upcoming technological developments but noted that UNAFRI were keenly aware about the limits of private property developments. Society needed to protect itself from exploitation and fraud, which was

[123] Frederick Engels, *Anti-Schelling* (1841): https://www.marxists.org/archive/marx/works/1841/anti-schelling/index.htm.

an important matter for regulators and policy makers. Regulation he cautioned, should not only protect the interests of those who were alive, rather it should include the property of deceased persons where the investment was held in some form of cryptocurrency or some other crypto asset. Such protection would enable the family of the deceased to access the asset (not a criminal or fraudster). While encouraging and promoting these crypto assets, policy makers needed a joined-up thinking on how to regulate this financial space, one that included traditional institutions like banks. The latter would in future integrate cryptocurrencies and their technologies, but they too he stressed, were not immune from criminal activity or fraud.

Regulations, Professor Kibuuka maintained, were very central to protection of interests of all parties, but equally important was the Declaration that was prepared in 2017 at the second Roundtable. Considering current developments in the field, and in light of the issues that had been raised by all the previous speakers, the Declaration needed to be put into practice. For example, it was imperative to decide which existing laws could be applied or modified to regulate the use of the technologies. The policy announcement by the Minister for ICT on the creation of a Task Force was critical as the Task Force could discuss these issues and see how existing regulations could be applied to these new developments.

Professor Kibuuka concluded by calling for wider knowledge exchange and networking among all stake holders in order to develop a robust public facing regulation that alerted the public and the state to the benefits and risks of the nascent payment technologies. Such policies would help promote the technologies, while protecting society and individuals from exploitation.

12 PLENARY SESSION DAY 2

12.1 FINTECH AS A SOCIAL FACT

Participants recognised the social fact that cryptocurrencies were going mainstream; and that several regulators were now involved in the creation of policies to regulate the fintech and other sectors. Participants recommend that policies were needed to give guidance to businesses and investors so that they acted in compliance with the law and contributed to the development of the country.

12.2 EMERGENT TECHNOLOGIES ARE SELF-CORRECTING

Participants noted that emergent technologies were a new industry that was bound to have teething problems, but the industry was correcting itself and dealing with those challenges through the development of more versatile software and technologies. It was noted that three years ago,

people were cloning Blockchains from the original bitcoin Blockchain technology, but now the third generation Blockchains original were in existence.[124]

Similarly, new cryptocurrencies were being developed to deal with the problem of scalability, the problem of speed of the transactions and even trying to address the problem of volatility- the biggest challenge faced by the cryptocurrencies market. The Dagcoin[125] for example, was developed to deal with the limitations of scalability and speed, claiming to process up to one million transactions per second. The faster the speed of the transactions, the lower the transaction fees.[126] New coins had been developed to stabilise the cryptocurrency market and deal with the issue of volatility. Stable coins (like Tether) for example, were pegged to fiat currencies like the United States dollar or pegged to gold (like Digix) in order that each token could be exchanged for the underlying asset.[127]

The value of all these assets, some participants (Ivan Kintu of Cryptocurrencies Evolution Limited) argued, could not all go down at the same time. By analogy, if the value of gold went down, the value of oil and gas could go up as could foreign exchange. Mr Kintu saw this as one way that the industry was sorting itself out, and regulators needed to take this into account. Indeed, the President's pronouncements at the 2018 May conference he noted, had increased transactions for dealers in cryptocurrencies particularly transactions in cars, even houses. The reality was that policy makers had to be more supportive of the technologies as they were here to stay.

Participants recommended more support to emergent technology businesses from policy makers.

12.3 Setting up a Working Group

Members recommended the setting up of a Working Group and agreed that the Group would prepare a research brief on policy making for emergent technologies for consideration by policy makers. See section 14 below for the outline of the Working Group's response.

13 Closing Speech by Mr Kisembo (Acting Director, UNAFRI)

Mr Kisembo thanked the participants and the Working Group for contributing to discussions on public facing policy. He noted that the group started out in 2016 with few people and had grown to over 52 people by 2018. He promised that UNAFRI would re-visit the action points and continue to engage with policy makers so that the challenges raised could be addressed to give clarity to all involved in this transformative technology.

[124] Sudhir Khatwani, "Top Five Blockchain 3.0 To Watch Out for In 2018", *CoinSutra*, 18 April 2018, https://coinsutra.com/3rd-generation-blockchain/
[125] https://dagcoin.org/
[126] Yary Ribero and Daniel Raissar, Dagcoin whitepaper, Dagcoin, 19 July 2017, https://dagcoin.org/whitepaper.pdf
[127] Kieran Smith, "Bringing an end to volatility – How will the crypto ecosystem stabilize?" https://www.coininsider.com/how-will-the-cryptocurrency-ecosystem-stabilize/

Mr Kisembo thanked the press who had publicised the event and who were a big vehicle for mass mobilisation and awareness raising. He noted that one key player was left out of these discussions and that was the Correctional Services (like the Uganda Prisons). A lot of criminal activities using distributed ledger technologies were taking place in the correctional services including running criminal gangs from prison.[128] It was time to include the correctional services in the policy debates as they could contribute to the question regarding criminal activity from inside prison, and the treatment of prisoners who were convicted of offences relating to the illicit use of distributed ledger technologies. He concluded by encouraging participants to respond to UNAFRI's call for closer engagement in the policy discussions on the regulation (or not) of emergent technologies.

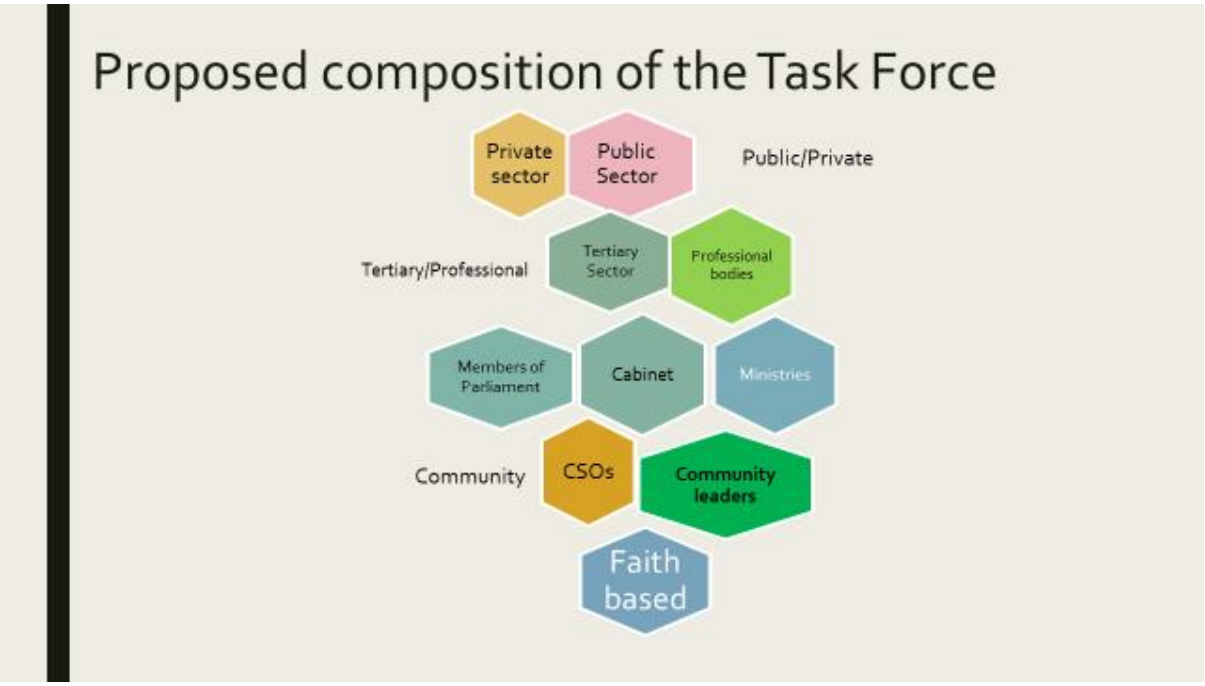
14 WORKING GROUP DELIBERATIONS

The Working Group reflected on the policy areas that were highlighted by the Ministers for Internal Affairs and for Finance, and the government's request for any proposed regulatory mechanism to consider the social, cultural, economic, legal and political effects of this technology in the policy sphere.

The group began by examining the policy strategy contained in the proposal by the Minister for ICT Mr Frank Tumwebaze to create a National Task Force on the Blockchain. The Group decided to build on this idea and made the following propositions. That the Minister for ICT be requested to expand the remit of the task force to cover a wider range of emergent technologies that could be called digital assets, tokens, distributed ledger technologies or some other term. That the composition of the Task force would be multi- sectoral and comprising people drawn not only from the technology sector, but from other sectors, both public and private, to ensure that a range of voices were heard. The justification for this broad remit and composition was to ensure greater clarity surrounding regulation and potentially to avoid over regulation of the technology sector.

[128] A report of investigation into the State of Ohio Prison by Randall J. Meyer, the Inspector General, found that two prisoners had stored Bitcoin wallets and bank accounts on the prison's internal network. The prisoners stole log-in information from a former prison employee, and created accounts for themselves on the staff network, then opened up avenues of digital finance- Greg Thompson, "Imprisoned on the Blockchain: How Crypto is Changing the Prison System" *Blockonomi*, 27th June 2018, at https://blockonomi.com/blockchain-prison-system/ . The full report of the Inspector General FILE ID NO 2015-CA000 43, dated 11th April 2017 is available at https://ohiomemory.org/digital/collection/p267401ccp2/id/14798/

14.1 PROPOSED COMPOSITION OF THE TASK FORCE



Private sector was understood to cover investors, miners, businesses as well as their representative bodies like the Uganda Manufacturers Association, the Blockchain Association to Uganda, Kampala City Traders Association (KACITA), and Uganda Chamber of Commerce and so on. The press/media was viewed as an important part of dissemination of information. The public sector included the government departments represented in the Justice Law and Order Sector (JLOS)[129], and others not directly covered under JLOS including the financial, monitoring and related regulators like the Central Bank of Uganda (BOU), Uganda Revenue Authority (URA), Uganda Microfinance Regulatory Authority (UMRA), Insurance Regulatory Authority(IRA), Capital Markets Authority (CMA), Uganda Retirement Benefits Regulatory Authority (URBRA), National Information Technology Association (NITA), Uganda Communications Commission (UCC), National Identification and Registration Authority (NIRA), Financial Intelligence Authority (FIA), Uganda Investment Authority (UIA), Uganda Registration Services Bureau (URSB) and the Savings and Credit Cooperative Organisations (SACCOs).

Tertiary bodies were conceptualised in terms of educational institutions given their wide-ranging experience in creating public awareness though various forms of teaching and learning. Tertiary bodies included universities, the National Council for Higher Education, the National Curriculum Development Centre, the Judicial Training Institute, the Police Training Schools, and the Law Development Centre. Professional bodies covered those professions like the one for bankers

[129] JLOS departments include: The Judiciary, the Uganda Police, Uganda Prisons, Office of the Director of Public Prosecutions, and the Uganda Law Reform Commission.

(Uganda Bankers Association), for lawyers (The Uganda Law Society), for certified accountants (Institute of Certified Public Accountants of Uganda-ICPAU), and ethical oversight bodies like the National Council for Science and Technology.

Members of Parliament, the Cabinet and government ministers were considered a special separate group consisting of the Parliamentary Members Association (to avoid having too many sub groups and in the process inadvertently excluding some Members of Parliament). The Cabinet was one of the key players, as were key ministries in the development of these policies like the Ministries for Finance, Planning and Economic Development; for Information, Communication and Technology and National Guidance; for Gender, Labour and Social Development; for Justice and Constitutional Affairs; for Internal Affairs; for Education; for Local Government; for Trade, Industry and Co-operatives, for Foreign Affairs and the Directorate of Ethics and Integrity (Office of the President).

Civil Society Organisations (CSOs) and community leaders, were broadly defined. Some CSO's were doing public interest litigation and advocacy in this area- like the Cyberlaw Initiative, yet others like Rotary Clubs and the Lions were doing lots of work to empower people at all levels. Several CSO's were working with people with varying forms of impairment (visual, hearing, mobility, learning and the like), with women, with the elderly, youth and so on. Alongside these groups were the community leaders. The Working Group chose this term 'community leaders' carefully so as not to focus narrowly on traditional leaders or on opinion leaders, but rather to capture the nuance in community leadership be it at the level of kingdoms, chiefdoms or acephalous 'stateless' societies.

The last group of faith-based organisations referred to those with a 'Luddite' approach to mobile technology, groups like the End Time that do not believe in the use of mobile phones. Given the fact that some of these groups wielded considerable influence over their followers, it was best to engage with them (or groups like them) not only to gain an understanding of their ideology, but also to help them see that the use of technology could enhance the economy and people's lives.

14.1.1 Next steps for the proposed Task Force

The Working Group considered what sort of topics that the Task Force might consider as part of their Terms of Reference. The first was the nomenclature. It was necessary to decide on the terms to be used to describe the emergent technologies, and whether there would be one definition or sector specific definitions related to each regulator's remit. The latter would mean that each regulator could develop their own description of the technology that appeared to disrupt their sector, have their own understanding of how it works and what the technology meant for the sector's aims and purposes. A second term of reference would be to establish the legal status of cryptocurrency. The group anticipated that such legal status might require an amendment or

revision of existing Acts of Parliament like the Constitution or the Bank of Uganda Act, in order to give legitimacy to the regulator to provide oversight of a given sector.

Deciding on the nomenclature and how to give legitimacy to cryptocurrencies and related assets/tokens would be conceptualised differently using diverse approaches depending on the discipline. Economists or sociologists for instance, would have a different understanding of the nomenclature and the meaning of legitimacy from lawyers, insurers, or those in the technology sector. This difference of opinion might well lead to contradictory messages going out to the public during the public consultation process. To avoid any confusion, there was need to contextualise and harmonise the language of the consultation questions in a simplified manner that targeted the different regions and population demographic. The reason for having targeted messages for each demographic or region was that in one region, cattle could be viewed as a prized monetary asset and yet in another region, the money might be saved in crops like millet or bananas. Developing a set of Frequently Asked Questions in the localised dominant languages could also help avoid misinformation, as would the distribution of leaflets in those languages.

Of utmost importance was that the policy message should be validated and integrated into a policy paper (if deemed suitable) for public consultations. Prior to the consultation, a categorisation of the public would help deliver a targeted message to the right group. The Working Group proposed three categories: high income, middle income and low income, in addition to the use of inclusive language that took into account the fact that some people in the high-end net worth group might not fully understand the terminology or risks of a product. It was imperative that the messages were packaged specifically for each group.

14.2 Institutional Action points

With the support of UNAFRI, it was agreed that the policy proposals would be sent to the Ministers and circulated to other government ministries and departments. However, the group recommended that given the exponential use of cryptocurrencies, and the emergent use of the Blockchain in Uganda, institutions needed to have policy action points to work on. One example was the Central Bank that could declare itself on status of cryptocurrency. The Uganda Revenue Authority could also issue a practice note on the tax implications of dealing in cryptocurrencies.

Other policy makers (and regulators) could follow suit to offer further clarity, but it was important for regulators to state who had the remit over the various technologies to avoid over regulation. Following the pronouncements by various policy makers, the regulators would then seek guidance from the Uganda Law Reform Commission as to which laws were applicable; and what mode of regulation would suit.

Dated 5th July 2018, Kampala, Golden Tulip Hotel, Nakasero

Comments or queries on matters raised in this Policy Makers Workshop report may be directed to Dr Maureen Mapp at M.O.Mapp@bham.ac.uk .

15 LIST OF PARTICIPANTS AT THE FIRST POLICY MAKERS WORKSHOP (4TH -5TH JULY 2018)

Honourable General Jeje Odongo, Minister of Internal Affairs

Hon. Dr. Ajedra Gabriel Gadison Aridru, Minister of State for Finance, Planning and Economic Development (General Duties)

Hon. Dr Justice Henry A. Adonyo, Executive Director, Judicial Training Institute

Ms. Jeroline Akubu, Acting Commissioner Law Reform, Uganda Law Reform Commission

Ms Yvonne Apolot, Blockchain Association of Uganda

Mr Leonard Businge, Kampala Associated Advocates

Ms Ritah Karungi Butime, Head, Financial Innovations Unit, Central Bank of Uganda

Mr Arnold Bagubwagye, Financial Markets Department, Bank of Uganda

Ms Liz Cusbagan, Blockchain Association of Uganda

Mr Felix Forster, University of Warwick, UK

Mr Titus Kakembo, *New Vision* Uganda

Professor Eric P. Kibuka, Research Fellow, UNAFRI

Mr Ivan Kintu, Cryptocurrency investments

Mr Robert Kirunda, Bitreco Limited (Uganda), and Kirunda and Wasige Advocates

Mr John Kisembo, Acting Director, UNAFRI

Dr. Gladys N. Kisekka, Deputy Registrar Research and Law Reporting, Judicial Training Institute

Mr Michael Kizito, School of Computing and Informatics Technology, Makerere University

Dr Maureen O. Mapp, Lecturer, University of Birmingham Law School

Associate Professor Ronald Kakungulu-Mayambala, School of Law, Makerere University

Mr Julius Mboizi, Senior Officer Legal Affairs, Uganda Communications Commission

Mr Kenneth Muhangi, Partner, KTA Advocates and Solicitors

Mr Dan Munanura, Assistant Commissioner of Police, Electronic and Counter Measures Department

Mr. David J.K Mpanga, Partner, Bowmans Uganda

Ms Sarah Musoke, UNAFRI

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