Paper	https://www.mdpi.com/2073-445X/9/12/491/htm	https://ieeexplore.ieee.org/abstract/document/9642505	https://link.springer.com/article/10.1007/s11277-021-08833-1	https://adi-journal.org/index.php/ajri/article/view/339	http://telkomnika.uad.ac.id/index.php/TELKOMNIKA/article/view/15787/8630	https://www.emerald.com/insight/content/doi/10.1108/JPPEL-02-2020-0010/full/html
Year	2020	2021	2021	2020	2020	2020
Blockchain Name		Ethereum		Ethereum	**Ethereum**	
Blockchain Property						
Consensus Protocol		Proof of Work (PoW)		Proof Of Work(Pow)	**POW**	
Type of Blockchain						
Blockchain Framework						
Proposal		The system secures and verifies land records by using blockchain for storing these information. Initially the seller and buyer makes a pre-agreement title contract that includes their signatures, the seller's and buyer's ID, the Sell ID of the land, amount to be transferred, and payment status. Then, the contract is sent to the Sub-Registry Office in order to make a request for sell. RSA algorithm [34], being famous for ensuring security when exchanging data, is proposed here to send data (in encrypted format when sending, and decrypted after receiving) to Sub-Registry Office. To ensure the trustworthiness of the system, a special lock is used here so that no other transaction on that particular sell ID can be performed until the approval/disapproval is confirmed from the Sub-Registry Office. There is a system administrator present in that office who will be responsible for further decision making on that information. The Sub-Registry Office then start conducting the verification and valuation process. They check their own office documents and ask the land office and the bank to perform their individual responsibility to complete the verification depending on the data provided to them. Upon the completion of the above procedure, the buyer will get notified about the verification status by the Sub-Registry Office. Assuming a successful verification, buyer has to digitally sign that agreement, or reject the request otherwise. The next step initiates the fund transfer to bank, where the buyer needs to pay the amount indicated in the pre-agreement. The bank confirms the transferred amount against the pre-agreement contract and sends the details information back to the Sub-Registry Office regarding the transaction. The Sub-Registry Office accepts the proposal for transferring the ownership. The office administrator then request all nodes to process ownership transfer request. He sends block hash to these nodes.	(1) Seller login to the registry department blockchain web Application (2)Buyer login to the registry department blockchain web application (3)Bank login and the registry branch blockchain net application (4)Bank employees can retrieve the information of the seller & buyer for further process (5)All the details will verify employing the registry department through the UID facility of the government department. (6)Smart contracts execute the sale and generate a digital agreement using the sale facts and stores the records inside the Blockchain. Legal users can get access the contract. (7)The mortgage agreement is uploaded through the bank application and digitally signs it, and only the buyer can access it. (8)The buyer signs the digital document, and the bank process the payment to the agent (9)The sale agreement has digitally accomplished the use of a smart contract. The Blockchain is updated with the bank transactions, and the executed contract is available in the web application for all the legal parties to see. (10)The certificate of possession requests and the required document files are to be had within the registry department software. (11)Stamp duty and different fees/taxes are calculated automatically inside the web application. The agreement agent makes the payment online. The certificates of possession are created and registered at the Blockchain.	Indonesia is a densely populated country with a population of 260 million, making Indonesia the fourth most populous country in the world. The continued rapid development of the economy in Indonesia has made land an asset that provides benefits. In Indonesia, land ownership that has the highest legal power is proven by a Certificate of Ownership or in indonesian is called as Sertifikat Hak Milik (SHM). Meanwhile, the land titling process is often complex and lengthy, and because of the processing carried out by government agencies in handling a variety of different documents, some structured people commit fraud. The impact is that the model currently used does not have good governance. This research offers a Blockchain-based solution in providing data harmony and openness, lightening in data access, permanent records management, and most importantly it is a solution that is cheaper and faster. This research offers a step-by-step model of Blockchain selection beginning from the public Blockchain ledger which will continuously incorporate two degrees of Hybrid Blockchain. The smart contract design of the Public Blockchain is provided in detail as well as the use of Ethereum in implementing its prototype system. In the experimental test using the local Ethereum test network directly to show the effectiveness of the system. The results of the analysis show that the model offered can reduce the costs required for processing information, the number of trips required, and result in easy access to important information. With the implementation of Blockchain, efforts to digitize land rights in Indonesia can increase.	Step-1:the seller and buyer sign a Pre-agreement title contract containing Sign, Seller ID, Buyer ID, sell ID, Amount of transfer, payment status. Step-2:the pre-agreement title contract then sent to the Registry office for sell request.For making the trust in the system for a land registry using BC and solve the double spending problem, the system will put a LOCK on the specific land title and will not allow any other transaction on same Sell ID until the Approval or the Disapproval is received from the registry office. Step-3:the registrar office can then send an ownership and dues verification and validation request to bank, Revenue, Surveyor & registry office.Registrar office ask the surveyor for the validation and the report of the property geometry, property GPS Location and property ID.Registrar office asks the bank for verification and report of the Credit history of buyer and seller, credit history of the property. Registrar office asks the Revenue department for verification and report of the type of property and appraisals.The registry office notifies all the departments and sends the Blockchain hash to all the departments in the land registry system. Step-4: the registry office will get information from all the department to whom the verification request has been sent. Step-5:the registry office notifies the Buyer that Ownership verification has been verified and notifies them to sign the agreement digitally, otherwise disapprove the request. Step-6:the system tracks the amount listed in the pre-agreement to be transferred to the bank by the buyer. Step-7:the Bank checks the fund transferred with reference to the pre-agreement title contract and approves it. And marks the payment as received on Pre-agreement title contract Step-8:the bank send the transfer details to the registry office. Step-9:Registry office approves the Ownership transfer request and notifies the Seller and the Buyer about the land title transfer. Recording office in registry office changes the ownershiprecords. Step-10the Registry office generates an Electronic title deed with Bloch chain hash and QR code to the buyer. Ownership certificate is given to the buyer Step-11.the ownership transfer certificate updated to all the departments (registry office, bank, suryer, revenue office) with blockchain hash to all the departments in the land registry system.	This paper aims to set out an argument for the use of blockchain technology as a land registration tool, for Cyprus and other disputed land contexts, to assist with land disputes, which may, in turn, promote peace and harmony.
Focus	Thus, in lieu of the transparency of land administration processes, a blockchain can boost land registration process by enhancing: Openness, Availability and access to land information, Participatory Process	During any document verification the criteria we focused(Data integrity, security, verification and government regulations.) are the key comparative items here. It also eliminates intermediaries involved in the land registry operation.	Smart contracts will help the buyer for their loan approval with the government norms and understand the limitations of the loan amount. Second, all the buyer and seller can check their rand of properties for the selling and purchasing.	The smart contract design of the Public Blockchain is provided in detail as well as the use of Ethereum in implementing its prototype system. In the experimental test using the local Ethereum test network directly to show the effectiveness of the system.		
Targeted Country	Ghana	Bangladesh	India	Indonesia		
Users Involved		Land Office, Bank, Sub-Registry Office	Buyer, Seller, Bank, Registration Department	Buyer, Seller, Bank, Registration Department		
Storage Medium			Database	Database		
Limitations & Improvements	Limitations include: limited storage and scalability, as well as huge electricity consumption for operation.					