Blockchain/Bitcoin Functionality in Land Administration

Christiaan Lemmen (Netherlands), Philip Knight (United Kingdom), Jaques Vos (Netherlands), Eva-Maria Unger (Austria) and Bert Beentjes (Netherlands)

Key words: Digital cadastre; e-Governance; GIM; blockchain, bitcoins

SUMMARY

Transactions with 'Bitcoins' have many similarities with land transactions: the transactions are public, the transactions are identified and logged (time/date, type of transaction, amount, etc), the transaction related to an identified bitcoin takes place only once (avoidance of selling the same bitcoin twice) and everybody can access the ledger. The digital environment allows multiple users to verify and there is only one version of truth. 'Blockchain' functionality guarantees uniqueness and tractability of transactions.

This paper discusses the usability of this functionality for land administration. A bitcoin may represent a uniquely labelled and located piece of land in this perspective. Transactions in rights related to a (part of) such piece of land can be followed by all other land right holders in this concept. This allows for development of a land administration which is governed by a community and not by a central authority.

Examples cases from Honduras and Ghana are discussed in the paper as well as an analyses of the pro's and con's of the introduction of this type of functionality in land administration. And of course the question: what functionality exists in current land administration practices that isn't covered by blockchain technology.

Blockchain/Bitcoin Functionality in Land Administration (8407) Christiaan Lemmen (Netherlands), Philip Knight (United Kingdom), Jaques Vos (Netherlands), Eva-Maria Unger (Austria) and Bert Beentjes (Netherlands)