GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2146
TO BE ANSWERED ON 13.12.2024

ESTABLISHMENT OF BLOCKCHAIN-BASED LAND RECORD SYSTEM

2146. SHRI GOLLA BABURAO:

Will the Minister of Electronics and Information Technology be pleased to state:

(a) the progress made in establishing blockchain-based land record systems in AndhraPradesh;
(b) the measures taken to ensure that small and marginal farmers, particularly from SC/ST communities, benefit from this technology; and
(c) the plans to extend this technology to other areas of governance in the State?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION ECHNOLOGY
(SHRI JITIN PRASADA)

(a) to (c): Blockchain technology is an emerging technology which is a decentralized, distributed ledger system that securely records transactions across a network of computers. It uses cryptography to ensure transparency, immutability and trust without intermediaries. Each block contains data, a time stamp and cryptography link to the previous block creating a secure, tamper proof chain of information. Hence this technology has the potential to provide better accountability in any digital system involving public transactions. It has potential applications in Land Records & Property Registration management, Digital Identity management, Supply Chain Management and Welfare distribution amongst others.

National Blockchain Framework (NBF) was launched on 4th September, 2024 to offer Blockchain-as-a-Service (BaaS). NBF supports distributed infrastructure, smart contracts, security, privacy, interoperability and development & deployment of permissioned blockchain based applications.

NBF is a permissioned blockchain platform developed through collaboration between researchers, academic institutions and government agencies. These include Centre for Development of Advanced Computing (C-DAC)- Hyderabad, Mumbai and Pune; Institute for Development and Research in Banking Technology (IDBRT) Hyderabad; IIT Hyderabad; Society for Electronic transaction and Security (SETS) Chennai; National Informatics Centre (NIC)/National Informatics Centre Services Incorporated (NICSI); and IIIT Hyderabad.

These institutions have worked together to design the National Blockchain Framework (NBF) as a permissioned Blockchain platform with controlled access to ensure the security, privacy and confidentiality of data. The best practices such as use of data encryption, proving the existence of data without revealing the data, and indigenous certifying authority, etc. have been implemented in the design.

National Informatics Centre (NIC) under the MeitY has developed blockchain based solution for agriculture and non-agriculture property which may also be used for land record systems.

Maintenance of land records is within the purview of concerned State Governments.

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