Government of India

सत्यमेव जयते

ANNEXURE

Sl. No.	Affordable Technology Menu for Sustainable Rural Development	Details of the technology
1.	AwaasSoft and AwaasApp used for implementation of Pradhan Mantri Awaas Yojana- Gramin (PMAY-G)	Under PMAY-G, houses with basic amenities are given to rural poor. For programme implementation and monitoring, AwaasSoft software and AwaasApp, a mobile based application are being used. Awaas Soft is a workflow enabled, web-based electronic service delivery platform through which all critical functions of PMAY-G, right from registration of beneficiary to providing construction linked assistance are provided to the beneficiaries. AwaasApp - a mobile application is used to monitor real time, evidence-based progress of house construction through date and time stamped and geo-referenced photographs of the house. The two IT applications help identify the slip-ups in achievement of targets during implementation of the program.
2.	Use of Green Technologies and innovative technologies for construction of roads under Pradhan Mantri Gramin Sadak Yojana (a programme for construction of rural roads)	**1. Use of New and Green Technology (using New materials/Waste materials/Locally available materials)**: Pradhan Mantri Gram Sadak Yojana (PMGSY) encourages the use of 'Green Technologies' and non-conventional materials like waste plastic, cold mix, geo-textiles, fly-ash, iron and copper slag etc in rural roads. The State Governments are required to propose minimum 15% of total length of annual proposals under new technologies like Cement stabilization, Lime stabilization, Cold mix, Waste plastics, Cell filled concrete, Paneled cement concrete pavement, Fly ash etc. 2.**Use of Cell filled Technology, developed by IIT Kharagpur and IPR transferred National Rural Infrastructure Development Agency, an autonomous body under MoRD**: This technology was developed by IIT Kharagpur for construction of roads with flexible concrete at a cost lower than that of a black top road. 3.**Use of natural geo-textiles such as Coir and Jute**: As per the PMGSY new technology guidelines for road construction, 15% length in each batch of proposals, is to be constructed using new technologies. Out of this 5% roads are to be constructed using IRC accredited technology. The IRC accredited Coir Geo textiles technology is used for construction of rural roads under PMGSY-III.

		This results in less consumption of bitumen and the life of the roads also increases by 3-4 years. Hence, maintenance cost gets reduced. 4. **Use of soil stabilized road with nano technology (commercial stabilizer)**: Soil stabilization, using a variety of stabilizers, is a common method used by engineers and designers to enhance the properties of soil. Nano technology is also used under PMGSY for soil stabilization purpose. The mechanical behavior of a soil is improved with addition of nanoparticles, which are not a cementitious material but once introduced in a soil they reduce the inter-particles' spacing and nano-reinforce it. Hence, nano technology helps in improving soil strength, stability, which reduces maintenance cost.
3.	NREGASoft, SECURE (Software Estimate Calculation Using Rural Employment), GeoMGNREGA for geotagging of assets under Mahatma Gandhi National Rural Employment Guarantee Scheme.	a. The NREGASoft provides for recording of all transaction details of different processes in implementation of Mahatma Gandhi NREGA and putting the same in public domain. b. The SECURE (Software Estimate Calculation Using Rural Employment) is online estimate calculation software developed for preparation of estimates at all the levels in Mahatma Gandhi NREGS. The Technical sanction and Administrative Sanction of the estimates will be online process. c. With an objective to improve the transparency and to enhance the visibility of the programme, the Ministry has started implementation of GeoMGNREGA for geotagging of assets. It follows a systematic creation of database on assets using technological interventions like mobile based photo geo-tagging and a GIS based information system for online recording and monitoring. Now geotagging is carried out in three stages viz.: • o Before initiation of work; o During the work & o After completion of work. d. The Ministry is also encouraging the states/UTs for preparation of GIS based watershed plans for optimizing on water conservation with support from National Remote Sensing Center on the Bhuvan Platform. e. Under Mahatma Gandhi NREGA Direct Benefit Transfer (DBT), all payments to the workers are to be credited into the accounts of the workers in the Bank/ Post Offices, unless exempted by the Ministry in special circumstances.