

(c) Various schemes being implemented/planned with financial support from Universal Service Obligation Fund (USOF) to increase the spread of communication network in inaccessible rural and remote areas in the country including Chhattisgarh, are as under:—

- (i) BharatNet is planned to create network infrastructure for providing Broadband connectivity to all Gram Panchayats (GPs) (approx. 2,50,000) in the country. The project is being implemented in a phased manner, with phase-I to connect 1,00,000 GPs being implemented currently. Remaining GPs are targeted to be covered in phase-II, to be completed by December, 2018
- (ii) 2199 mobile towers are being set up in Left Wing Extremism (LWE) affected States with a total estimated cost of ₹ 3567.58 crore. As on date, 2186 sites are radiating.

**Frequent disruption of internet in Post Offices of
Nalanda division of Bihar**

4060. SHRI RAM NATH THAKUR: Will the Minister of COMMUNICATIONS be pleased to state:

(a) whether computerization of post offices, particularly in Nalanda division of Bihar, has brought their functioning to a standstill due to frequent disruption of internet services;

(b) whether Government is aware that Parwalpur sub-post office remains non-functional for most of the time and as a result, people are badly affected; and

(c) if so, the steps contemplated by Government to ensure regular and uninterrupted internet services to all post offices in Bihar in general and this post office in particular, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF COMMUNICATIONS (SHRI MANOJ SINHA): (a) No Sir. Network connectivity on secure wide area network has been provided in all 41 Post Offices of Nalanda division in Bihar. All the Post Offices are providing services through the network.

(b) Parwalpur Sub Post Office is fully functional. The Network Monitoring Tool shows that both the Primary network and Secondary network are being utilized by the Post Office to provide services.

(c) Occasionally, unstable internet services do hamper services. Multiple safeguards have been built into the system to ensure stable internet connectivity for the post offices. Most of the offices have been provided with two Network Service Providers, NSP-1 (BSNL) and NSP-2 (SIFY Technologies Limited). The NSP-2 is used as back up in case

of any problem arising in NSP-1. Therefore, adequate redundancy has been built into the system. Monitoring of bandwidth utilization is done on real time basis to identify network problem. Service Level Agreements with penalties are in place with the service providers. To address operational problems, Circle Heads are authorized to upgrade bandwidth as and when required. In case of any network problems that arise as part of regular operations, a well-managed response system has been set up. The project has a Help Desk wherein individual problems are raised, which are managed and resolved immediately.

Commercial availability of 5G Networks

4061. SHRI K. R. ARJUNAN: Will the Minister of COMMUNICATIONS be pleased to state:

- (a) whether 5G networks are expected to be commercially available in 2020;
- (b) whether by 2022, 5G networks will have billions of subscribers and will cover a sizeable percentage of population for the technology; and
- (c) whether Government had dropped hints about making spectrum auctions an annual affair and this was being done to end complaints about spectrum scarcity once and for all, if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF COMMUNICATIONS (SHRI MANOJ SINHA): (a) and (b) The standardization of technology for 5G services is in progress at the International Telecommunication Union (ITU), Geneva, Switzerland. Small scale deployments of 5G networks are expected in some countries like the Republic of Korea, Japan and the United States of America around the year 2020.

(c) The Government has not made any plan to auction spectrum every year. Spectrum auctions were conducted every year from 2012 onwards in various spectrum bands as per availability. 964.8 MHz of spectrum out of 2354.75 MHz was purchased by various Telecom Service Providers through auction conducted in October, 2016. Thereafter, there has been no complaint of spectrum scarcity.

Internet connectivity in remote rural areas by Network Balloons

4062. SHRI PARTAP SINGH BAJWA: Will the Minister of COMMUNICATIONS be pleased to state:

- (a) whether Government is planning to partner with any multi-national corporation that makes use of network balloons to provide internet connectivity to remote rural areas, if so, the details thereof; and
- (b) whether this particular technology has components that could lead to issues related to privacy of individuals and also national security, if so, the steps Government has taken to circumvent these issues?