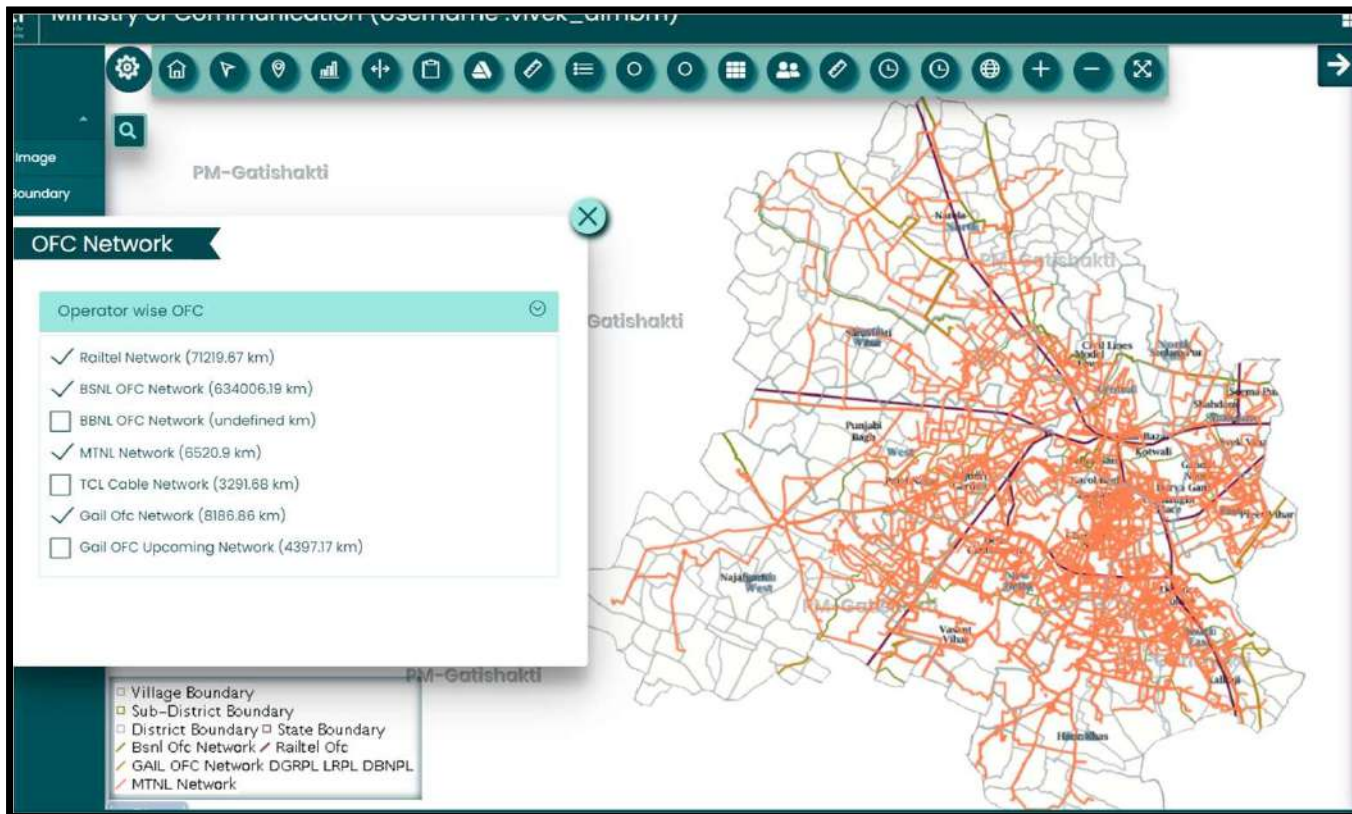




## DoT - PM GatiShakti National Master Plan Platform

# Telecom Data Mapping OFC



(~11 lakh RKM from PSUs of Railtel/ BSNL/ BBNL/ MTNL/ TCL/ GAIL/PowerGrid mapped)

OFC laid by Telangana & Jharkhand state government institutions is mapped and laid by other state government institutions is being mapped progressively

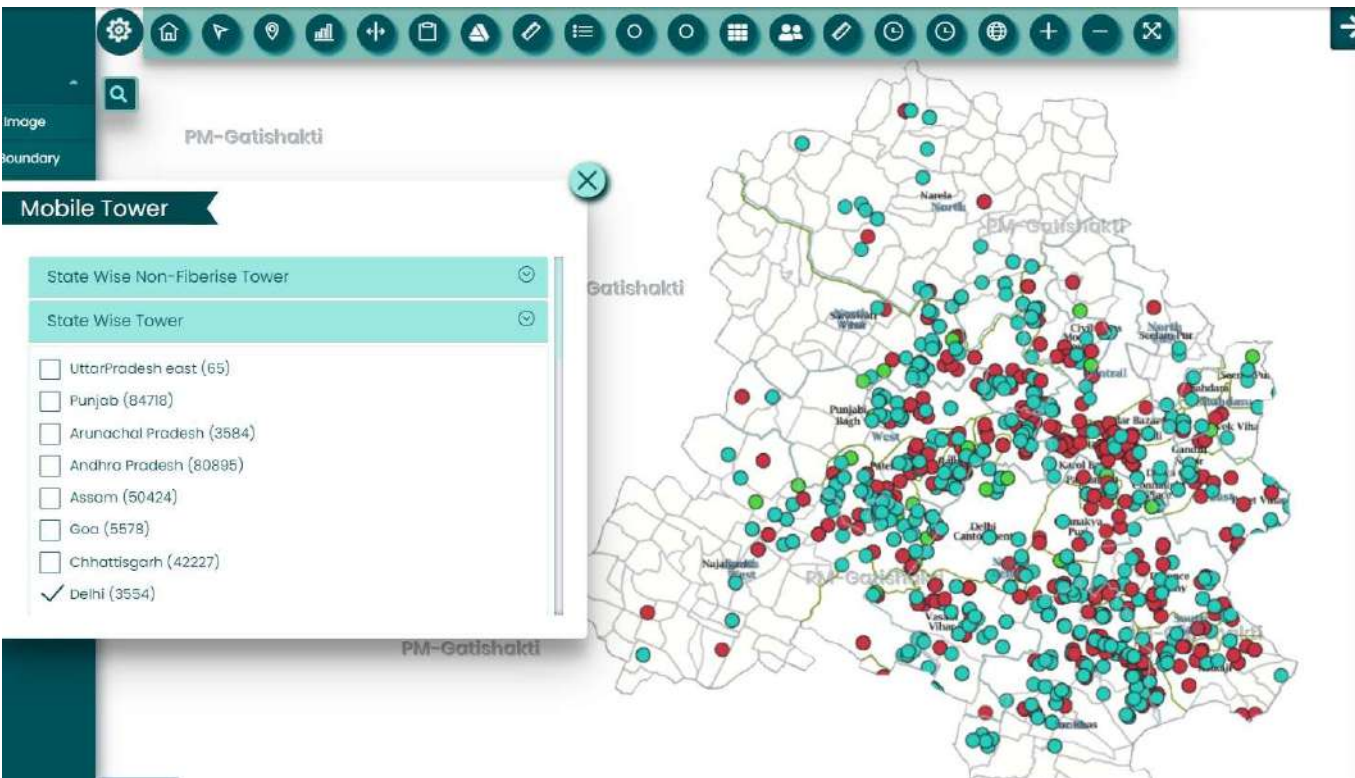
# Optical Fiber laid by state governments



- All the states are requested to provide data of the optical fiber laid by State PSUs, if any. Data can be submitted in KML (Keyhole Markup Language) format or shape files or even excels files having following attributes:
  - ✓ Operator
  - ✓ TSP
  - ✓ Installed on date
  - ✓ No. of cores
  - ✓ No. of cores utilized
  - ✓ Type of OFC(overhead, underground or OPGW)
  - ✓ Contact person(for sale/FTTH connection)
  - ✓ Remarks(if any)
- Further the states are also requested to provide details of OLTs(optical line terminal) & ONTs(optical network terminal), if any, with these attributes:
  - ✓ *Type*
  - ✓ *Latitude*
  - ✓ *Longitude*
  - ✓ *TSP(from whom backhaul bandwidth is taken)*
  - ✓ *Installed on date*
  - ✓ *Remarks(if any)*
- The objective is to map the optical fiber/network elements on the PM GatiShakti NMP platform so that same can be used for fiberization of mobile towers and providing FTTH connections in rural/remote areas.



# Telecom Data Mapping Towers/ BTSs

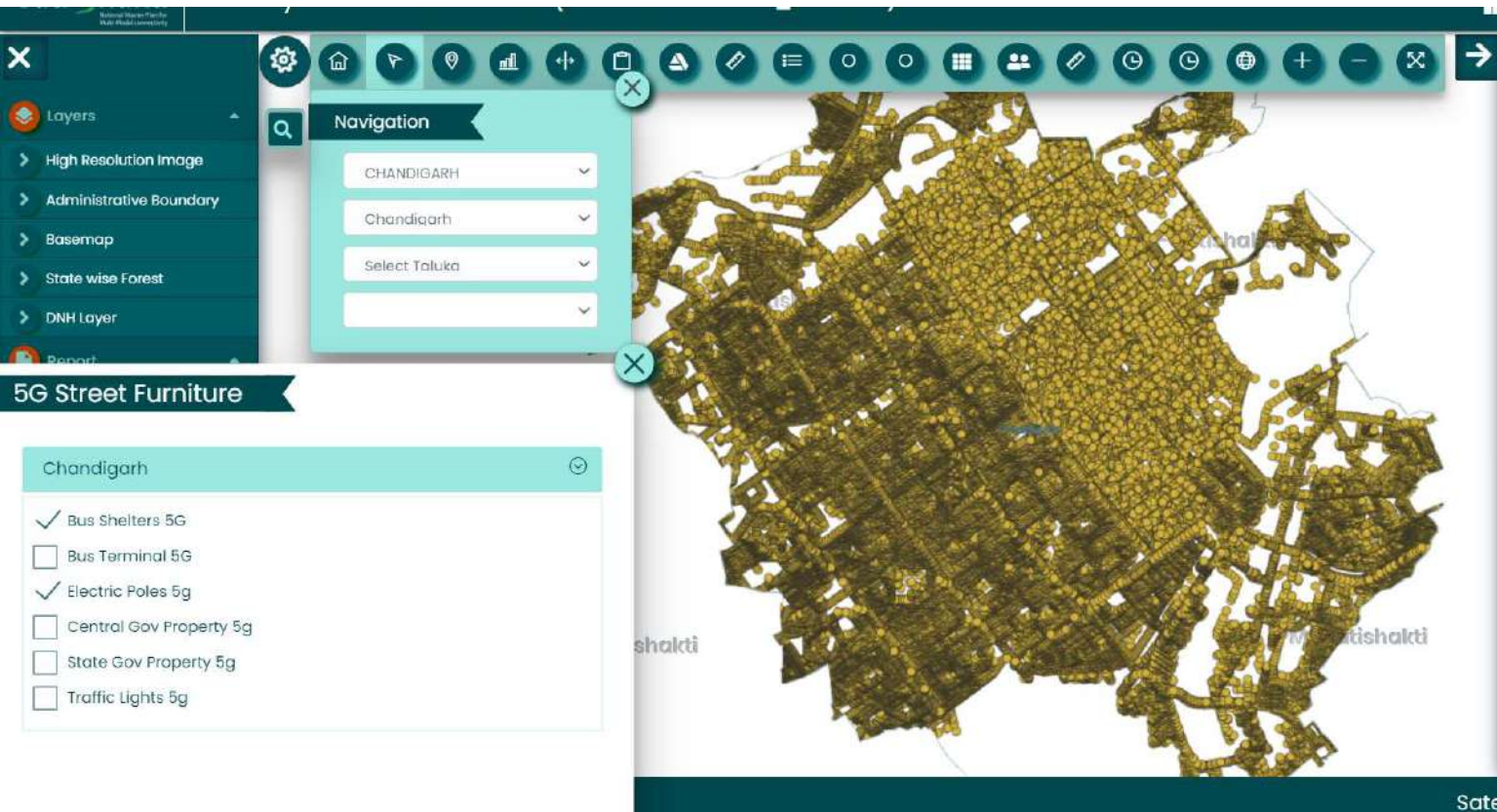


Towers (with BTSs of different operators)  
State wise - Fiberized & non-fiberized  
(Microwave or Satellite)

7.3 lakh towers and  
23.5 lakh BTS mapped



# Telecom Data Mapping – Street Furniture



Street furniture –  
for 5G roll out

- Street furniture of Chandigarh UT already mapped and laid by other cities is being mapped progressively.

# Street furniture for 5G rollout



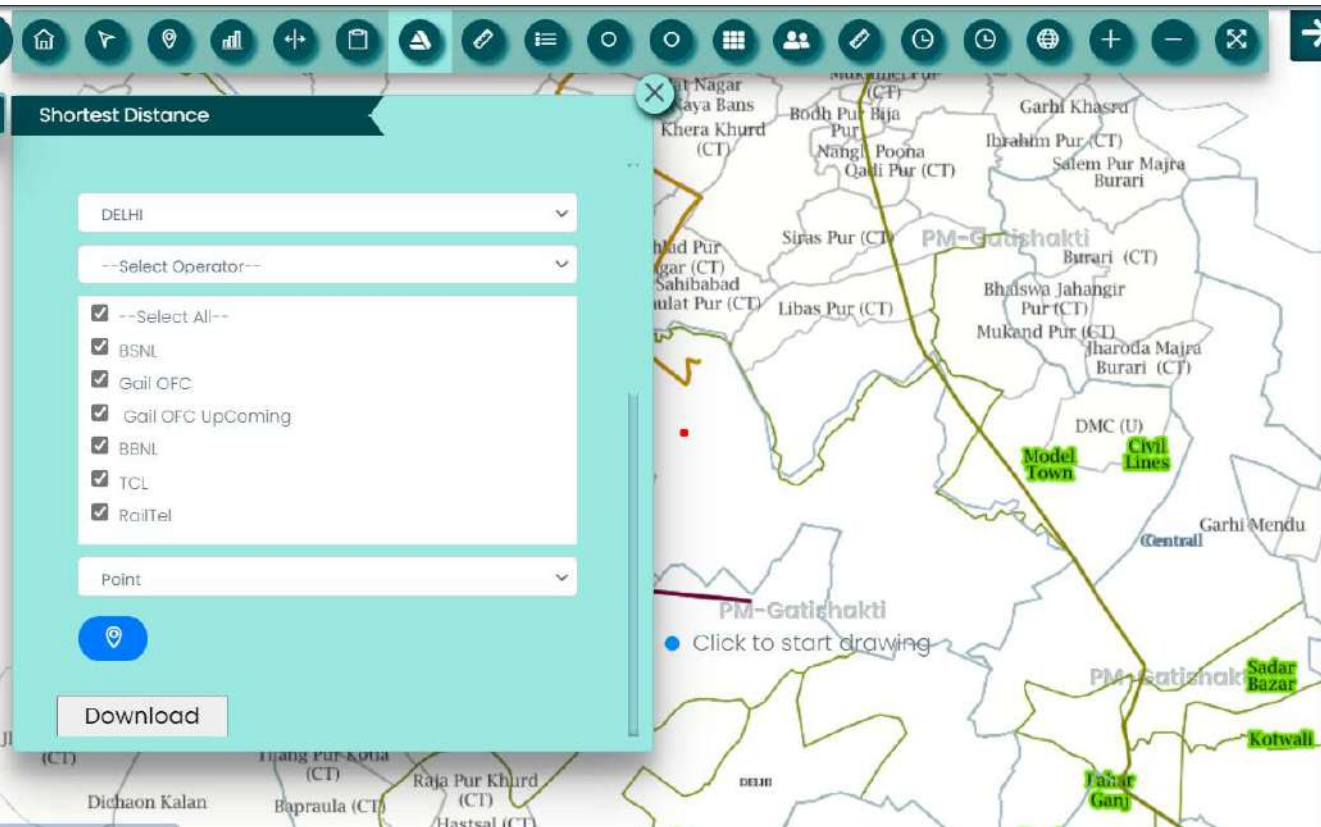
- All the states are requested to provide data of the following assets which will be used as street furniture for 5G rollout:
  - Electric Poles
  - Traffic light poles
  - Bus shelter
  - Government building, Street lights, billboards etc.
- Data can be provided in excel format
- Complete data need to be mapped not partial

Sr. No.	State	City Name	Street Furniture Type	Latitude	Longitude	Authority	Street Furniture Id/Name	Street Furniture Height	Structure Type of Street furniture	Class	Sub Class
1	A	X	Pole	23.2323	75.1234	MPEB	3045	8	RCC	State government	DISCOM
2	B	Y	Bus Shelter	23.4567	75.4567	MC Bhopal	ISBT	10	Steel	State government	Transport Department

# PM GatiShakti NMP-Tools Developed (1/3)

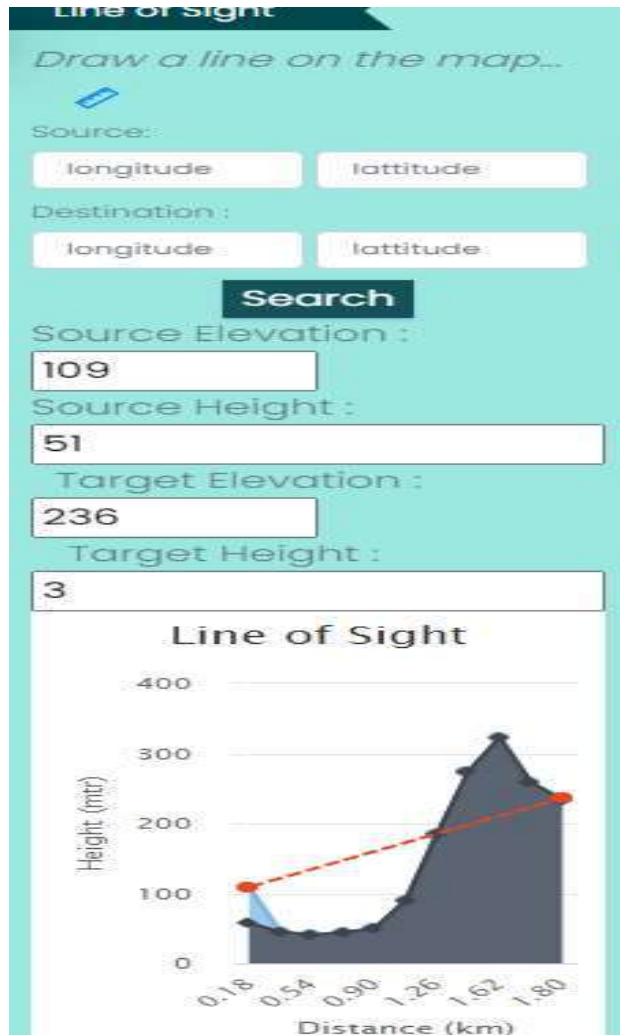
## SHORTEST DISTANCE TOOL

- Find shortest distance of OFC from the point of interest (use case fiberization of Towers/ Public institutions)
- Select point of interest on map or by entering latitude & longitude
- Find distance for one or all operators.
- Find distance by road as well as aerial
- Find RoW information along the route
- Download the information of distances calculated





# PM GatiShakti NMP-Tools Developed (2/3)



## LINE OF SIGHT TOOL

Find height of towers required at 2 points of interest to bring them in **Line of Sight**

Select points of interest on map or by entering latitude & longitude

Dynamically change height of any point(s) and see the results

Easy to use graphical interface

# PM GatiShakti NMP-Tools Developed (3/3)



## 5G PLANNING TOOL

- Generate grids of customizable size in the city of interest for 5G planning
- Overlap layer of mobile towers to see which grids are being covered
- Overlap layer of street furniture to check which grids are being covered
- The uncovered grids can be focused for infra installation

### Generate Grid

✓ Town

Enter Area (sq.m) max upto (2000)

1500

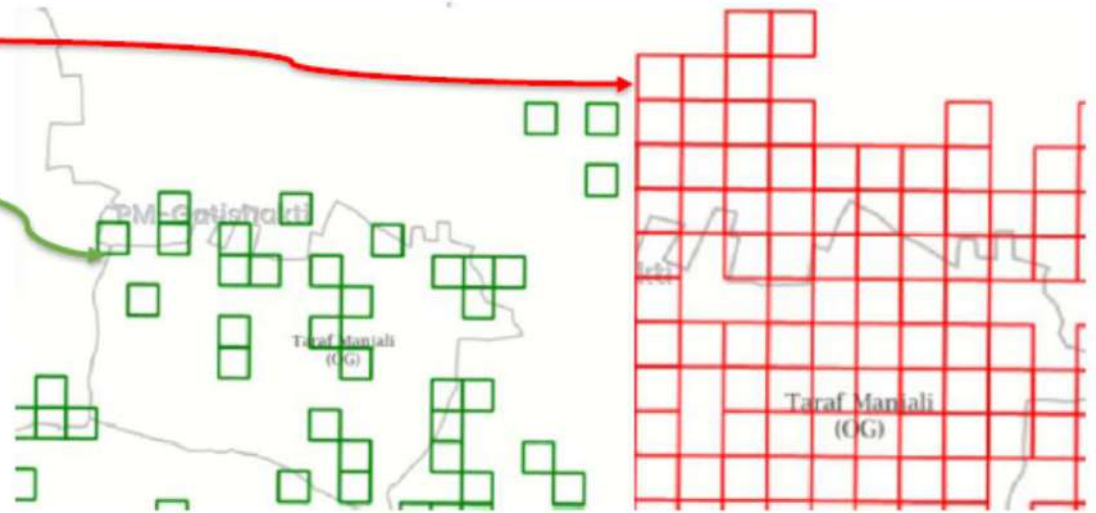
No. of grid(200\*200 m)

No. of grid

Report

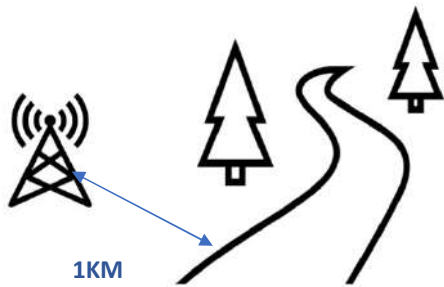
UNCOVERED

COVERED



# PM GatiShakti NMP Platform : 4G Saturation

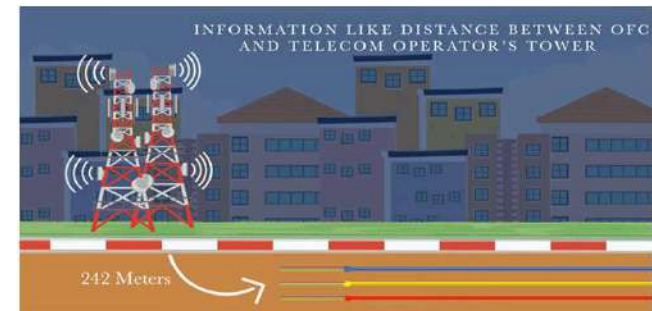
▶ Project aims to provide 4G coverage to the remaining approximately 25000 villages in the country. NMP is being used for planning of the project and shall provide following information:-



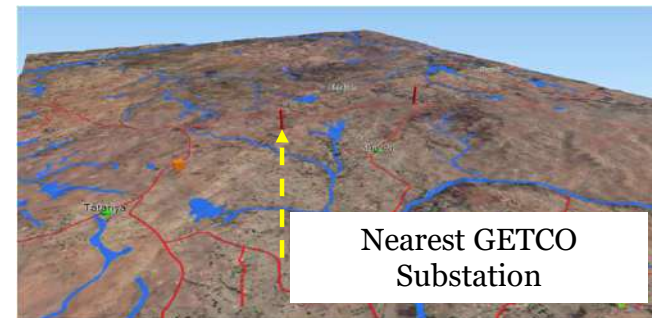
Distance of nearest available roads



Availability of land for installation



Distance of available OFC from the proposed sides



Distance of nearest available electric supply installation

# User Registration (1/2)

1. Click on

<https://ukhome.ncog.gov.in/telecom/login>



The screenshot shows a web browser window with the URL <https://ukhome.ncog.gov.in/telecom/login#>. The website is the PM Gati Shakti portal, featuring a navigation bar with links: HOME, ABOUT, GALLERY, CONTACT US, and REGISTER (which is circled in blue). A LOGIN button is also present. The main banner displays the text "PM-Gati Shakti" and a description of the National Master Plan for Multi-modal Connectivity. Below the banner, there is a section titled "CONNECTING PILLARS OF NEW INDIA" with logos for the Ministry of Fisheries, Animal Husbandry and Dairying; the Ministry of Coal; the Ministry of Mines; and the Ministry of Food Processing Industries. The bottom of the screen shows a Windows taskbar with various application icons and a system tray displaying the temperature (28°C), location (Smoke), and date/time (11:30, 14-10-2022).

2. Click on Register  
Tab

## User Registration (2/2)

The screenshot shows the 'User Information' form with a dropdown menu open for the 'Type of user' field. The dropdown lists several user types: 'Personnel of Broadband Mission DoT(super.admin)', 'Personnel of LSAs(admin)', 'Other personnel of DoT/DG(T)/USOF/WMO/TCIL/TEC/NTIPRIT/TRAI/BBNL/Other Ministries/Departments/PSUs(normal user)', 'Personnel of TSPs/ISPs/Associations(normal user)', 'Academicians/Researchers/Others(normal user)', 'Personnel of state government(normal user)', 'Office user', and 'Verifier'. A blue arrow points to the 'Type of user' dropdown. Below the form, the 'Layers Requirement' section is visible with a 'Register' button.

3. Fill all the user  
Information &  
select type of user

The screenshot shows the 'User Information' form with the 'Layers Requirement' section expanded. A blue arrow points to the 'Layers Requirement' section. The 'Layers Requirement' section includes a 'Group' dropdown and a list of checkboxes: 'Select All--', 'OFC Network', 'Mobile Tower', 'Population', 'RF Coverage', and 'WiFi'. The 'Register' button is highlighted with a green circle.

4. Select Layers  
requirement

5. Click on Register Tab







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# Thank You

National Broadband Mission on  
Social Media



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Click on the icons for social  
media pages



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