

Inspection methodology: Concrete road

- a. The structure to be assessed is identified and located with the help of available local people and liaison. The GPS location of some permanent reference point close to the road like hand pump, bore well, house, tree, electric pole, etc. is taken.
- b. The track (path) of the road is marked using *Mytrack* or *GPS essentials* mobile application by walking or riding the vehicle on the road. This activity will be done simultaneously with the measurement of road length using Pedometer (measuring wheel). In addition to this, the ride-ability and pavement surface conditions are also observed.
- c. Suitable sample sections (best condition section, average condition section and worst condition section) of the road are selected. Sample section can be reduced to two or even one in case the road is in uniform condition throughout its length. The chainage of the section and the width of the road at sample section is measured with the help of Pedometer and measuring tape respectively. Care should be taken to avoid selection of sample point at curve and turning point. The GPS location of each sample section is also taken.
- d. Rebound Hammer test is carried out at each sample section to determine the strength of concrete layer.
- e. With the help of hoe (kudal/tikav), a small pit approximately to a depth of 20cm is dug at the edge of the road at each sample point and the thickness of road layers such as sub-base, base, binder and wearing course is measured.
- f. Other parameters of the road like width of shoulder, number of culvert, size of drainage, availability of expansion joints, etc. are also observed and measured wherever required.
- g. With the help of villagers, information regarding the process of construction is also collected.
- h. Images of all the data observed on field are captured.
- i. The data observed on the field is recorded in *ODK collect* mobile application.