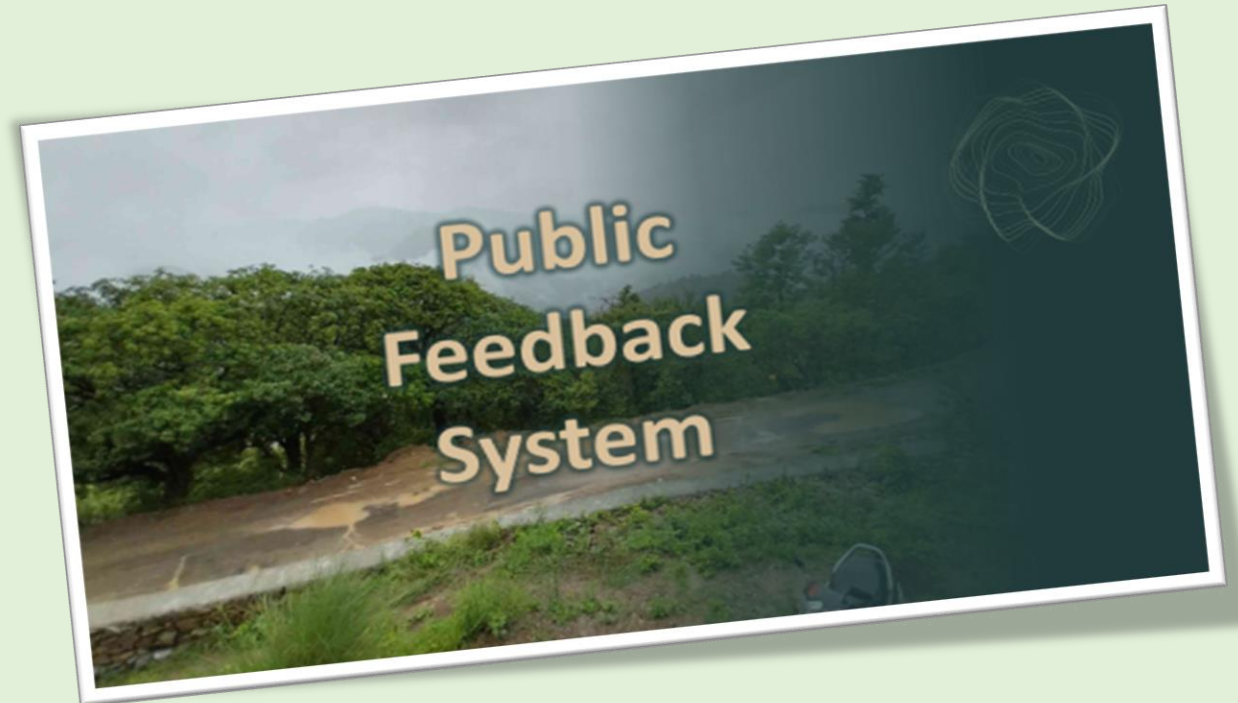


Mr Manoj Kumar Bisht

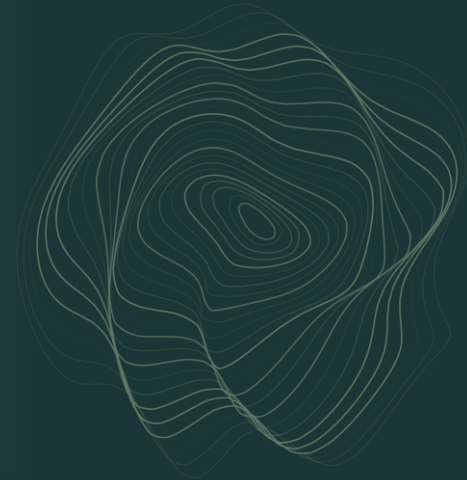
Superintendent Engineer
PWD Uttarakhand

Manoj Kumar Bisht has done B.Tech in Civil Engineering in 1997 and MBA in Infrastructure Management in 2017. He is Superintendent Engineer at PWD Uttarakhand having over 27 years of experience in planning of roads, bridges, water supply and sanitation projects. Expertise includes developing and implementing IT solutions for better project management, automating survey data for Civil 3D, Uttarakhand Disaster Recovery Project and accounting, letter management and MIS systems for PWD.



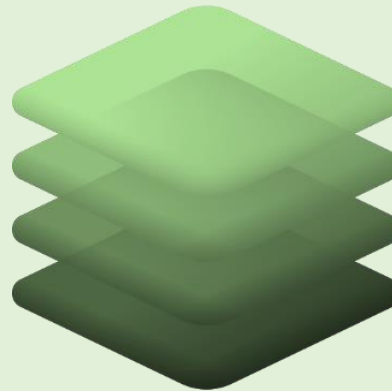


Online BRIDGE INSPECTION



Bridge Inspection Traditional Way

The IRC guidelines emphasize inspections before and after the monsoon season to ensure their safety and structural integrity.



State
Zone
District
Division



- IRC: SP:18-1978 Manual for Highway Bridge Maintenance Inspection
- IRC: SP:35-1990 Guidelines for Inspection and Maintenance of Bridges
- IRC: SP:52-1999 Bridge Inspector's Reference Manual

Online Inventory

Bridge Inventory for Each Bridge
Digitalized to all 62 parameter
prescribed in IRC: SP:35-1990
including GIS Coordinates.

System for validation and Life
cycle modification is also in place.



Inspection and Rating system

Online Data Collection :

Data for Bridge on 190+
parameter Based on Bridge
Components are fetched
according to IRC: SP:52-1999.



Mobile based and
Worked in Area
where internet is
not available

8:50 92%

Bridge Inspection

WELCOME

This Survey Form is Based on IRC SP 52-1999 Bridge Inspector Reference Manual

The Survey Form is Divided in Many Objective Type Questions Regarding Problems with following options-

- 1- No Problem. Its Fine
- 2- Not So Bad and Not Much Qty.
- 3- Not So Bad in Some Qty.
- 4- Not So Bad but Qty. a Lot
- 5- Bad but Not Much Qty.
- 6- Bad in Some Qty.
- 7- Bad and Qty. a Lot
- 8- Very Bad but Not Much Qty.
- 9- Very Bad in Some Qty.
- 10- Very Bad and Qty. a Lot
- 11- Not Applicable

Next >

8:50 92%

Bridge Inspection

SUPERSTRUCTURE > 1 > SUPERSTRUCTURE

* Superstructure Material Type of This Span

CONCRETE

General

* a) Impact damage to girders, trusses or bracings?

No Problem. Its Fine

* b) Debris or vegetation on beams, girders, trusses bracings or joints?

No Problem. Its Fine

* c) Water coming through the deck?

No Problem. Its Fine

* d) Water from the deck drainage flowing onto adjacent bridge, beams, abutments?

< Back Next >

8:50 92%

Bridge Inspection

BEARINGS

* Type of Bearing

RUBBER BEARINGS

* a) Debris or vegetation around bearings?

No Problem. Its Fine

* b) Bad drainage?

No Problem. Its Fine

* c) Not enough room for the bridge span to move?

No Problem. Its Fine

* d) Bearing not seated properly?

No Problem. Its Fine

* e) Bridge span not seated properly on

< Back Next >

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At Site Data Review




A screenshot of a mobile application titled "PWD Photo Collection A...". The status bar at the top shows the time 8:55, signal strength, and a 91% battery level. The app's header bar is dark blue with icons for saving, sharing, and a menu. The main content area has a dark blue background. It features a red star icon followed by the text "Locaion" and "Location" below it. A light blue button with a location pin icon and the text "Change point" is centered. Below this, the following coordinates are displayed in white text: "Latitude: N 30°18'3\"", "Longitude: E 78°2'34\"", "Altitude: 612.5m", and "Accuracy: 13.63m". At the bottom, there are two light blue buttons: "Back" with a left arrow and "Next" with a right arrow.

A screenshot of a mobile application interface. At the top, a status bar shows the time 8:56, signal strength, and battery level at 91%. Below the status bar, the app title "PWD Photo Collection A..." is displayed in white text on a dark background. To the right of the title are three icons: a document, a share icon, and a menu icon. Below the title, the text "* image" and "image" are shown in red and white respectively. A large blue button with a camera icon and the text "Take Picture" is centered below the text. Below the button is a large photograph of a concrete bridge structure over a body of water. The bridge has a railing and a central support pillar. The water is dark, and there is some green algae or moss on the bridge's base. At the bottom of the screen, there are two buttons: "< Back" on the left and "Next >" on the right, both in white text on a dark background.

8:56

Wi-Fi 91%

PWD Photo Collection A...



* Remark

कृपया सारगर्भित एवं सक्षिप्त टिप्पणी लिखें

Bridge condition is good

< Back

Next >

Good | good | voor | food | gold | hood | ▾

1 2 3 4 5 6 7 8 9 0

q w e r t y u i o p

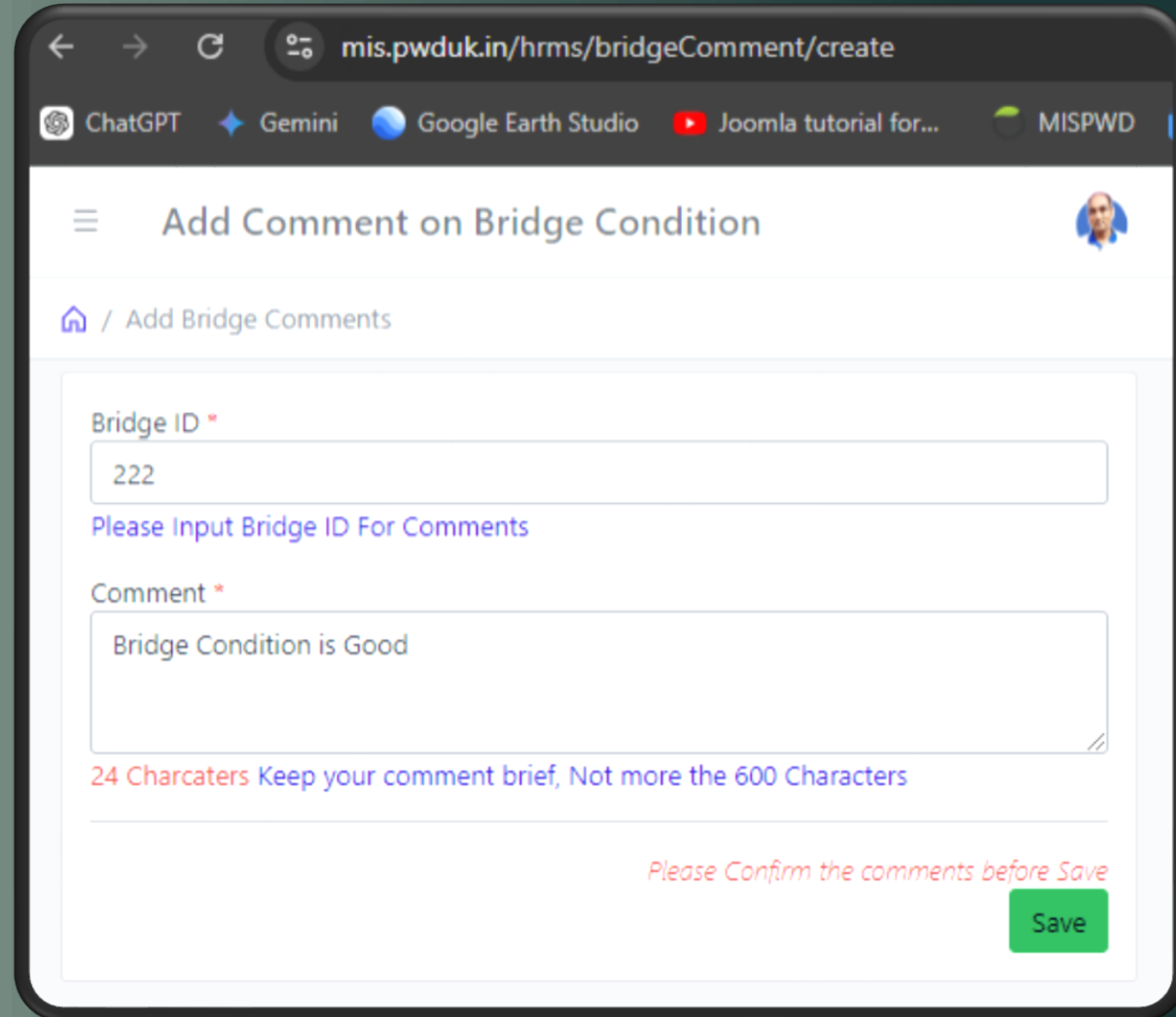
a s d f g h j k l

⬆ z x c v b n m ✕

?123 , . ⌂

↩

Data Review Form Web



The screenshot shows a web browser window with the URL `mis.pwduk.in/hrms/bridgeComment/create`. The browser's address bar and tabs are visible at the top. The page title is "Add Comment on Bridge Condition". Below the title, there is a breadcrumb trail: `/ Add Bridge Comments`. The form contains two main input fields: "Bridge ID *" with the value "222" and "Comment *" with the text "Bridge Condition is Good". Below the comment field, a red message states "24 Charcaters Keep your comment brief, Not more the 600 Characters". At the bottom right, there is a green "Save" button and a red text prompt: "Please Confirm the comments before Save".

mis.pwduk.in/hrms/bridgeComment/create

ChatGPT Gemini Google Earth Studio Joomla tutorial for... MISPWD

≡ Add Comment on Bridge Condition

🏠 / Add Bridge Comments

Bridge ID *

222

Please Input Bridge ID For Comments

Comment *

Bridge Condition is Good

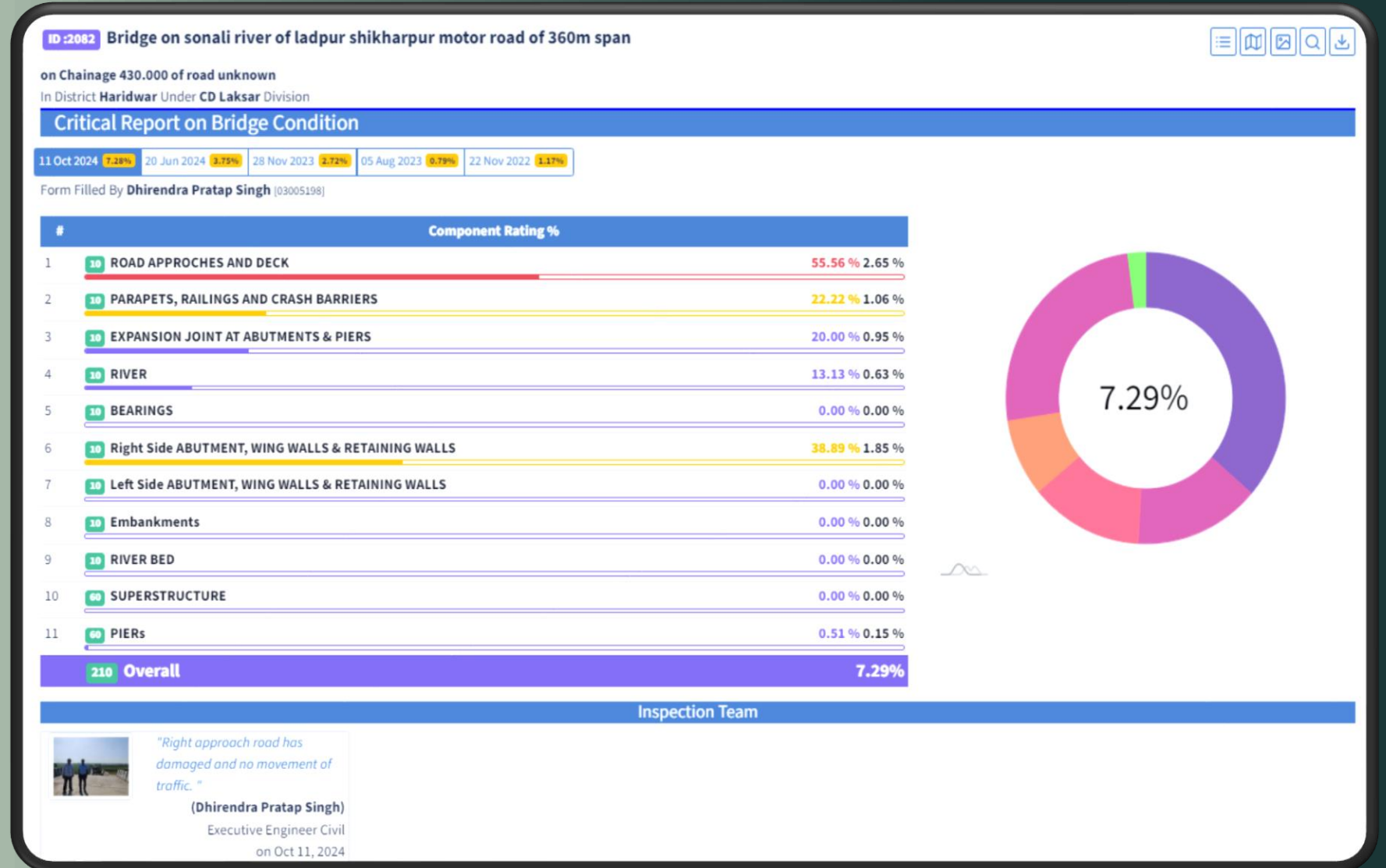
24 Charcaters Keep your comment brief, Not more the 600 Characters

Please Confirm the comments before Save

Save

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Customized way of Analysis



Journey so far

Total **9454**
Inspections
Conducted For
3306 Bridges

91 Bridges Critical
Found out of Which
37 marked as Unsafe
Bridge after Detail
Investigation.

8 Bridges Sanctioned
under Word Bank
Project.

334 Bridges Identified
for Loading Class
Upgradation.

In 288 Bridges DPR
Preparation started.

Benefits

Real Time : no compilation needed at Different level.

Enhanced Transparency , Public Visibility

Customized and critical Analysis

Funding Priority

Bridge Vulnerability History

Packaging of Maintenance Contract on Geo or feature

Challenges

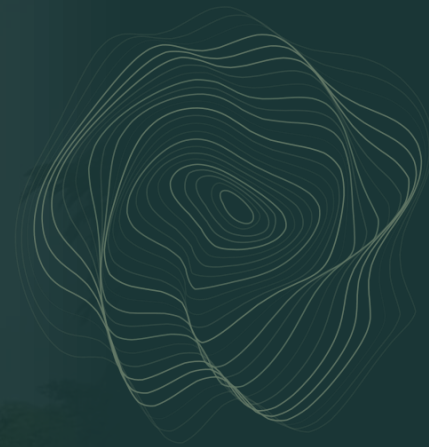
Rational System for categorization.

Integration of images, Drone Video or Sensors Base Data

IoT

AI Use in Inspection

Public Feedback System



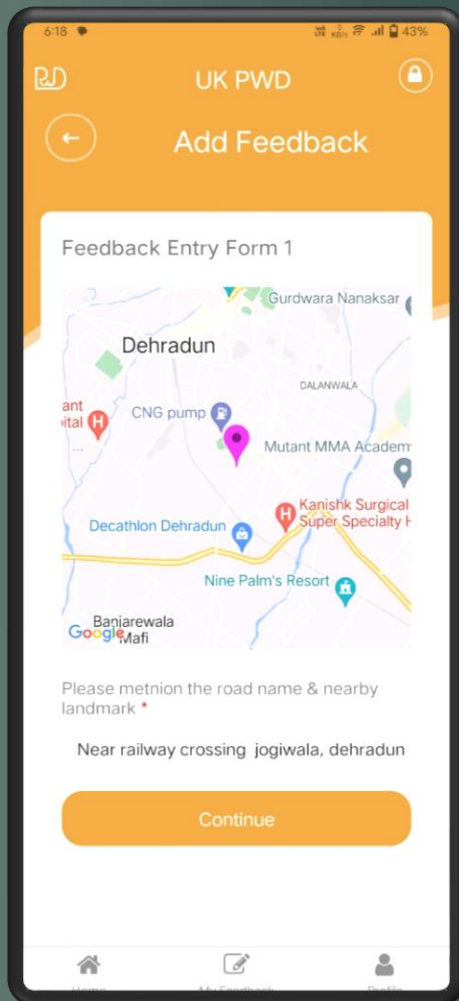
Feedback By Mobile

Mobile App for Gathering
Feedback on Various Road
Issues from the Public.

*Currently, only Feedback
Related to Patches and Potholes
is Accepted.*

Public users are only required to provide their location, a photo, and a comment

Based on the shared location, the system identifies the responsible office for action, and feedback is automatically sent to the Engineer's app



UK PWD

Add Feedback

Feedback Entry Form 1

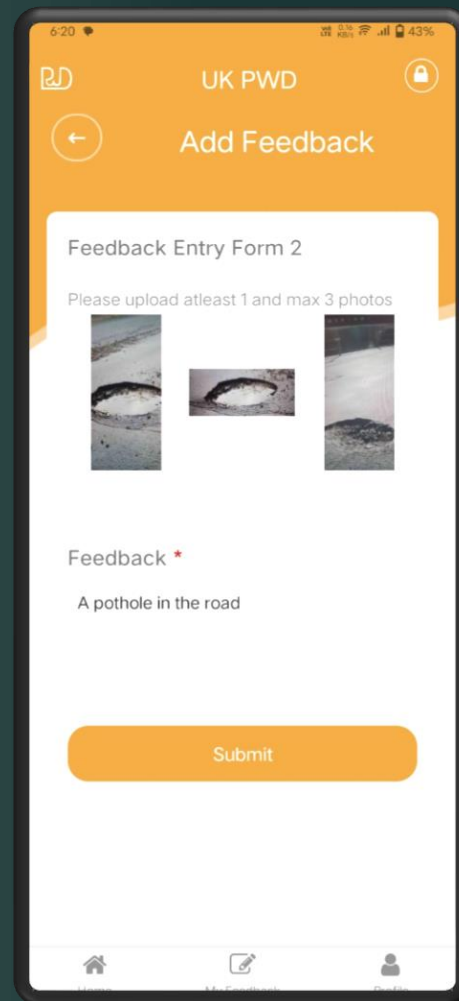
Dehradun

antital, CNG pump, Gurdwara Nanaksar, DALANWALA, Mutant MMA Academy, Decathlon Dehradun, Kanishk Surgical Super Specialty Hospital, Nine Palm's Resort, Banjarewala, Mafi

Please mention the road name & nearby landmark *

Near railway crossing jogiwala, dehradun

Continue



UK PWD

Add Feedback

Feedback Entry Form 2

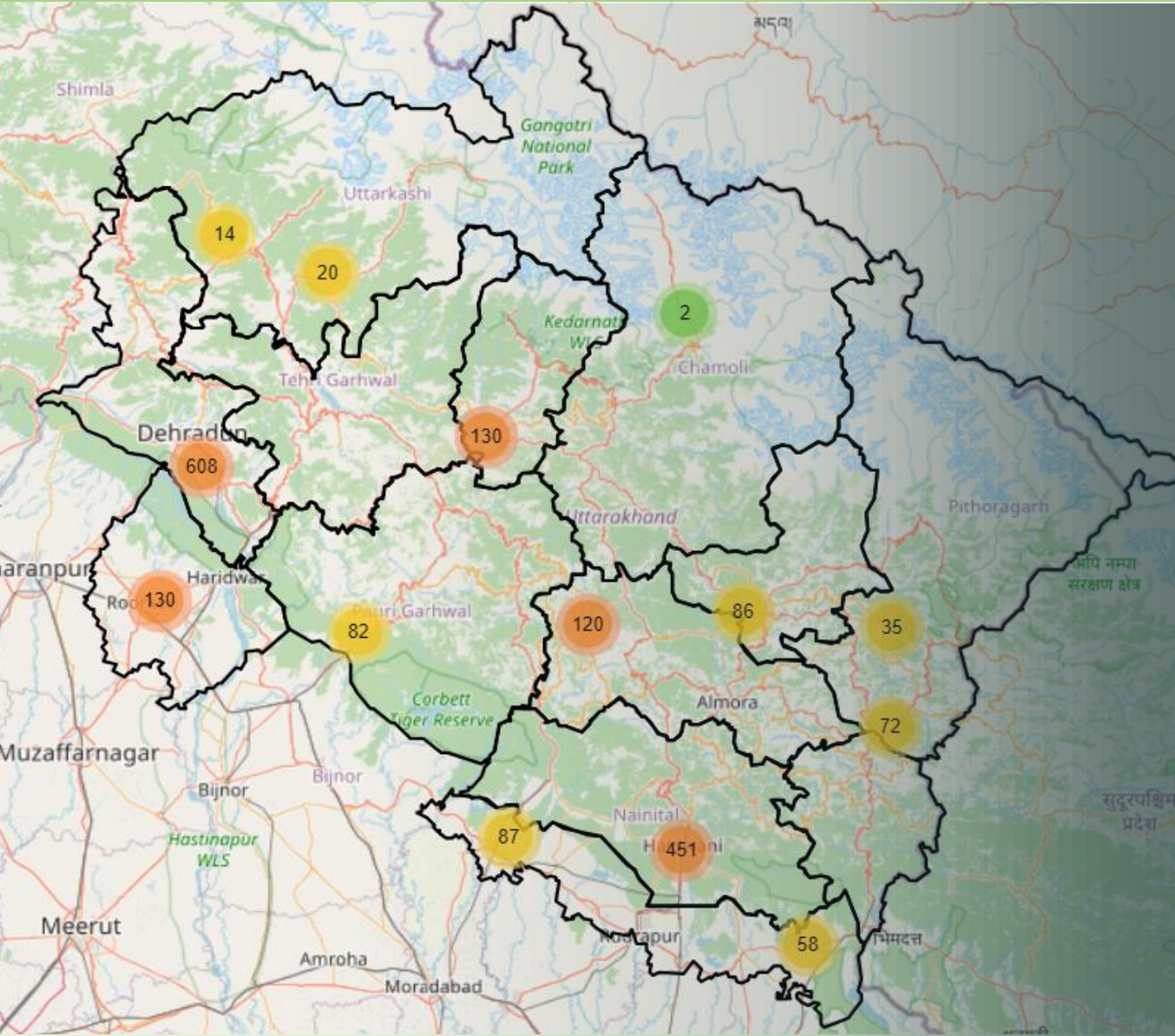
Please upload atleast 1 and max 3 photos

Feedback *

A pothole in the road

Submit

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1903
Feedback

Performance Measurement Mechanism

Feedback Event

Individual Patch Reporting Event

Card View

List View

Map View

Go to Feedback

Feedback ID: 1981

Current Status: Closed

Office: CD Dehradun

District: Dehradun

“ Gadda culture ”

Landmark: Karki Chowk Dehradun

Submitted By : - Sandeep kori , 23 Feedbacks On 12 Oct 2024

ISBT Road

Karki Chowk

NH7

ISBT Road

100 m

300 ft

30.288645N 78.024133333333E

Leaflet | Mapbox

Division Segment ID : 3554 at Chainage 2.594

Lal pul to Mothrowala via Kargi Chock motor road

Identified By Kml

Nearby complaints and Distance(m)

within: 100 m

1979

11.29 m

Acknowledged	1 day	2 hour	11 minute	↑
Assigned	1 day	2 hour	11 minute	↓
Completed	2 day	1 hour	49 minute	↓
Closed	3 day	13 hour	37 minute	↑

Avg 20 H : 47 M

Avg 1 D : 6 H : 31 M

Avg 2 D : 14 H : 48 M

Avg 2 D : 22 H : 33 M

Status Time Line

12 Oct 2024 (6 days ago) Received

13 Oct 2024 (5 days ago) Acknowledged

13 Oct 2024 (5 days ago) Assigned

14 Oct 2024 (4 days ago) Completed

15 Oct 2024 (3 days ago) Closed

Acknowledged on 13 Oct 2024 10:54 AM

By Praveen Kumar Karnwal.(61005220)

Assigned on 13 Oct 2024 10:54 AM

By Praveen Kumar Karnwal.(61005220) (assigned to Pooja Aswal (42270313F01308))




Completed on 14 Oct 2024 10:33 AM

By Pooja Aswal (42270313F01308)


Closed on 15 Oct 2024 10:20 PM

By Praveen Kumar Karnwal.(61005220) with Comment "Complete"

Images of Issue Uploaded:

Images of Resolve Uploaded:



Performance Measurement Mechanism

Acknowledged

1#

🕒 20 H : 47 M

0.05%

Assigned

10#

🕒 1 D : 6 H : 31 M

0.53%

Completed

3#

🕒 2 D : 14 H : 48 M

0.16%

Closed

1274#

🕒 2 D : 22 H : 13 M

66.95%

Reverted

612#

32.16%

Pending

3#

0.16%

Learnings

Zero time and use of GIS technology

All offices / region needs different staff pattern

Demand Based Allocation of Fund

Can be Replicated to other asset

Public Participation for improved Infra Management

Challenges

Other Department Roads

N Number of problems reported by user

Contract / Procurement Issue

Fund Issue



**THANK
YOU**