



Ministry of Health and Family Welfare  
Government of India

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**User Manual for Mobile Application of the Sentinel Surveillance  
on  
Air Pollution related Illnesses  
under  
The National Programme on Climate Change and Human Health  
on  
Integrated Health Information Platform**

**NOADS Mobile  
App User Manual**



National Programme  
on Climate Change  
and Human Health



National Centre  
for Disease Control  
Government of India

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## 1. Importance of Web Based Surveillance System on Air Pollution Related Illnesses

Air pollution is considered as an important public health concern in the country. People exposed to air pollution may seek increasingly the healthcare services, emergency visits, medications and equipment's usages, hospital admissions. 'Air pollution and its Health Impacts' is considered an important climate sensitive disease under National Programme on Climate Change and Human Health (NPCCHH). The programme envisages establishing a sensitive and flexible surveillance system to monitor impacts of air pollution on health in the country. Subsequently, the programme has initiated 'Acute Respiratory Illness (ARI) Sentinel Surveillance' in the context of Air pollution since 2017 from selected sentinel hospitals in Delhi and at present, the surveillance is expanding to other State/UTs in the country. This will, in turn, help the authorities to take data driven approach to mitigate the adverse impacts of air pollution.

Traditional passive surveillance systems typically rely on data submitted to the relevant public health authority by various healthcare providers. This process is often expensive and substantial delays between an event and notifications are common, resulting in an incomplete account of disease epidemiology. Such limitations of traditional surveillance systems are a shared concern worldwide. The Internet has revolutionized efficient health-related communication and epidemic intelligence. This system captures real time data from different sources with epidemiologic relevance, which play critical role in identification of early events and situational preparedness by offering current, highly local information about any disease. These systems not only monitor and predict disease transmission but also provide a user interface, and aid in visualization for an easier understanding and manoeuvring of the operation.

## 2. About NOADS

National Outdoor Air quality and Disease Surveillance (NOADS) platform is the web enabled surveillance system for air quality and its health impact. It is developed and maintained by the National Program for Climate Change and Human Health under National Centre for disease control, Ministry of Health and Family Welfare, Government of India. NOADS will be used by health representatives at different planes across the country to register patient with different disease condition like acute respiratory infection, cardiovascular illnesses, cerebrovascular illnesses etc. relevant to air quality. This will also allow users to report information on various types of tests done, record treatment details outcome of the treatment and current air quality indicators of that specific location. The major function of NOADS is to serve as national surveillance system on air quality and health.

### 3. Goal of the document

This document proposes the use of web based standard surveillance protocol throughout the country to enable health professionals understand the epidemiological transmission of this problem.

The overarching goal of web-based surveillance is to minimize the impact of air pollution by providing useful information to public health authorities so they may better plan appropriate control and intervention measures, allocate health resources, and make case management recommendations.

The purpose of this document is to facilitate the end users, i.e., the hospital nodal officers, clinicians, health care staff involved in the NOADS surveillance to seamlessly use the application for transferring the surveillance data to the next level. As stated above,

This manual contains the following details

- Hardware and software requirements
- Steps to download the app
- Manual on the collection of data
- Manual on synchronizing the data

### 4. Role of different stakeholders at various levels of implementation

This application should be used by, Hospital Surveillance Nodal officer (HNO), Emergency room in-charges, Duty doctors, Emergency room staff or anyone trained in the reporting of the NOADS to report patient data with different disease conditions relevant to air quality, information on various types of tests done, record treatment details and outcome of the treatment given.

## 5. Installation of the mobile app - NOADS

### 5.1 Hardware and Software requirements of the device

#### 1. Hardware-

- a. **Smart phones** with Android operating system (OS) can run the application.

#### 2. Software-

- a. The minimum Android version should be 4.0.3 and above to avail all the features in the application.

Internet Connectivity is required to download the NOADS mobile app in the smart phone

### 5.2 Steps to download & Install the app in the smart phone

**Step-1:** Two options are there to download the application to mobile phone:

The link provided by the programme officials

The Google Play Store

- Search NOADS on Google Play in Android mobile
- Select Application (NOADS)

**Step-2:** Install & Open the mobile App.

**Step-3:** Login with provided credentials (Username and Password) by the programme officials

## 6. Procedure to use this mobile app – 9 Steps

This section describes the sequential step-by-step process (9 steps) to be followed by the users at Sentinel Hospital, to report the cases attending the Emergency Department.

### FLOW OF INFORMATION IN THE MOBILE APP ‘NOADS’ – 9 STEPS

#### 9 STEPS OF USING THE MOBILE APP

1. Home Page

2. Login Page

3. Main Menu

4. Case wise daily reporting

5. City Air Quality Details

6. Dashboard

7. Synchronize

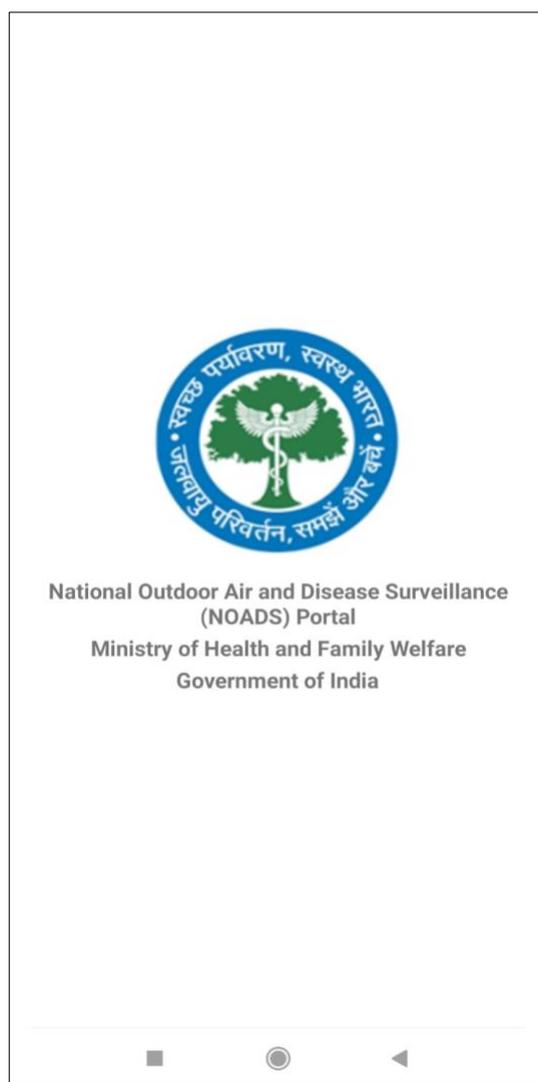
8. Help

9. Logout

## 6.1 Step 1 – Home screen display of the mobile app

After installing the application, the home screen of will appear as shown below. This is the Splash Screen which shows three features-

- i. The NPCCHH logo (in Hindi)
- ii. Name of the Mobile Application – NOADS
- iii. Ministry of Health and Family Welfare Government of India

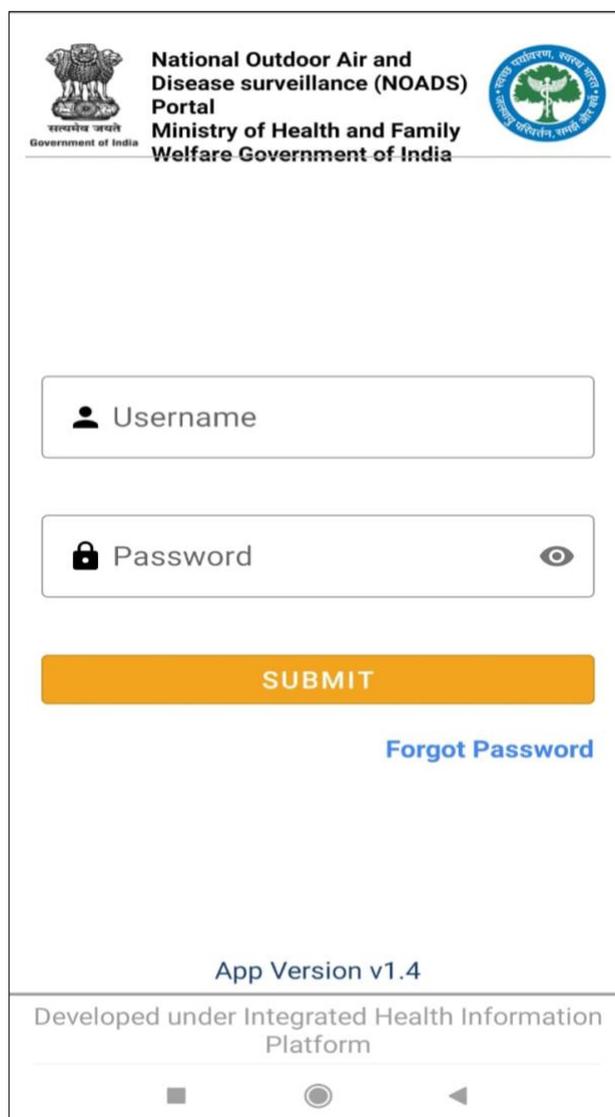


## 6.2 Step 2 – Procedure to login the app

Sentinel hospitals with ongoing surveillance on air pollution related illnesses will be provided with unique username and login password credentials by the NPCCHH programme officials.

- Access the application by entering the unique Username and Password (case-sensitive)
- Next, click on **Submit** button to access the application.

Note - If password is forgotten, click 'Forgot Password' link. The password will be sent to the registered email id of the respective user.



 **National Outdoor Air and Disease surveillance (NOADS) Portal**  
Ministry of Health and Family Welfare Government of India

Username

Password 

**SUBMIT**

[Forgot Password](#)

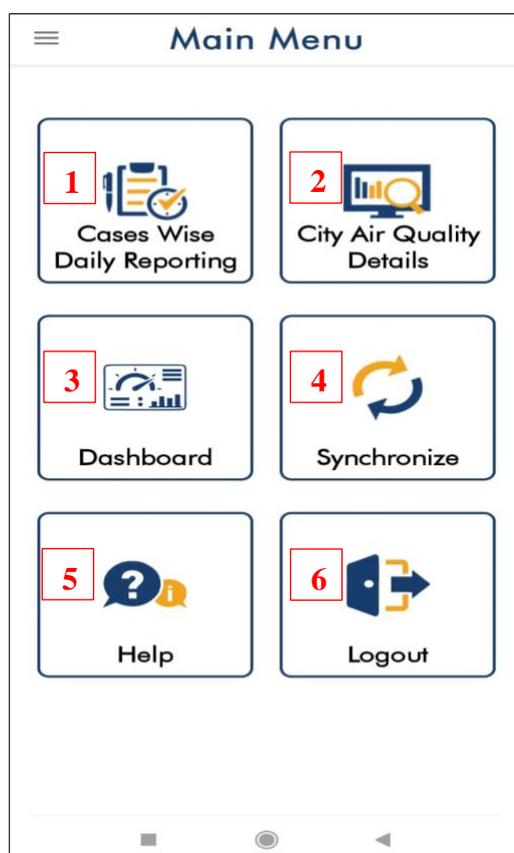
App Version v1.4

Developed under Integrated Health Information Platform

### 6.3 Step 3 – Features in the Main Menu display of the app

After successful login, the Main Menu page of the app will be displayed with 6 sub-menus as shown below. On clicking any of the sub- menus, you will be navigated to the specific page.

1. **Cases wise daily reporting:** This interface is to collect information about the Acute respiratory illness cases and their intervention. The detailed process is explained in section 6.4
2. **City Air Quality Details:** This displays information about city air quality, explained in section 6.5
3. **Dashboard:** This displays the dashboard of cases, explained in section 6.6
4. **Synchronize:** To upload data to server, explained in section 6.7
5. **Help:** Help screen, present in section 6.8
6. **Logout:** To logout, present in section 6.9



←

## Daily Cases Reporting

### 1. Total Number of Emergencies Reported to ED

Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

### 2. Total Number of Acute Respiratory Illness\* Cases Reported of ED (\* check list of ARI overleaf)

Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

### 3. Cases of Respiratory Illnesses Requiring Admission

Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

This section displays the ‘Daily Cases Reporting’ form.

The entry can be made as separate emergency departments listed. If the hospital has only single general emergency department, the entries can be done under ‘Internal Medicine ED’.

Users can enter the following details -

**i. Total Number of Emergencies reported to the Emergency Department (ED):**

The total number of cases attending the ED on the particular day i.e., all the emergencies including those that are not related to respiratory system are to be entered.

**ii. Total Number of Acute Respiratory Illness Cases reported to ED:**

The number of ARI cases is to be entered here (according to the case definition given in the Standard Operating Procedure Manual)

**iii. Cases of Respiratory Illnesses requiring Admission:**

The number of ARI cases reporting to the ED requiring admission is to be entered here.

4. Cases of Acute Respiratory Illnesses Reported to ED and Requiring Nebulization	
Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

5. Cases of Respiratory Illnesses Requiring Non-Invasive Ventilation	
Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

6. Cases of Respiratory Illnesses Requiring Invasive Ventilation	
Internal Medicine ED	0
Respiratory Medicine	0
Paediatrics ED	0
Total Cases	0

Data Reporting Date

Reporting Person

Others

**iv. Cases of Acute Respiratory Illnesses Reported to ED and Requiring Nebulization:**

The number of ARI cases reporting to the ED and Requiring nebulization is to be entered here.

**v. Cases of Respiratory Illnesses Requiring Non-Invasive Ventilation:**

The number of ARI cases reporting to the ED Requiring Non-Invasive Ventilation is to be entered here.

**vi. Cases of Respiratory Illnesses Requiring Invasive Ventilation:**

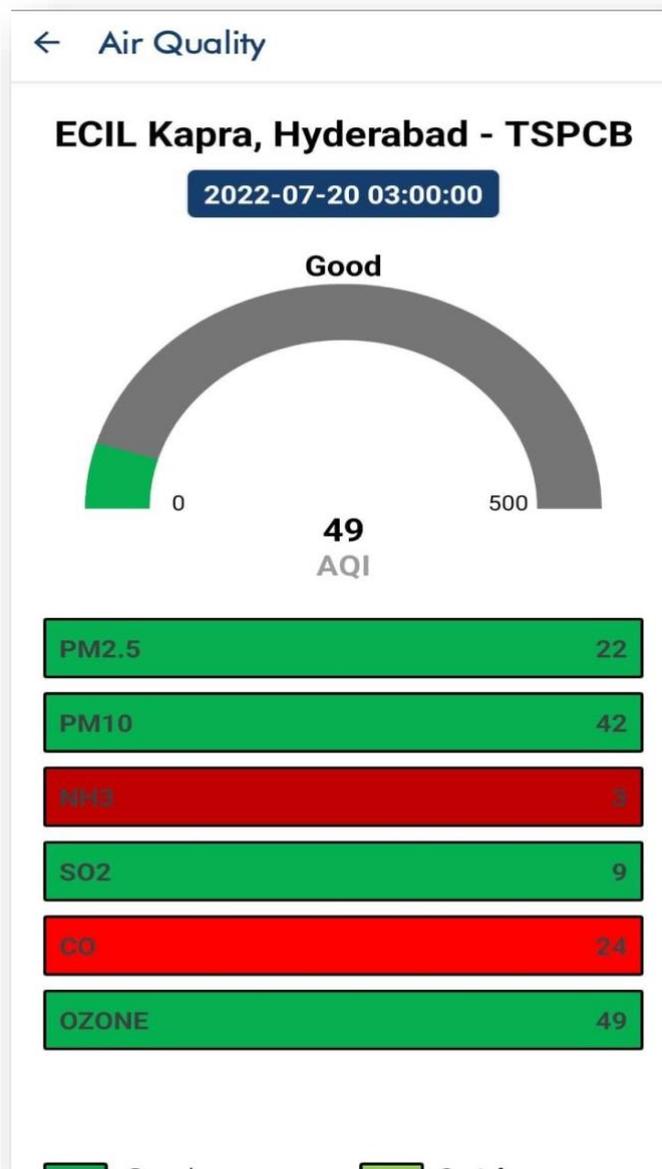
The number of ARI cases reporting to the ED Requiring Invasive Ventilation is to be entered here.

**Data Reporting Date:** User has to select the date for which he/she is reporting data. You can do data entry for today, yesterday and day before yesterday i.e. the dates before that get locked so you will have to report for any particular date within 3 days (inclusive of that date) from the date; thereafter, that date will get locked and you won't be able to do data entry for that date.

**Reporting Person:** Name of the reporting person need to be selected from Drop-down menu. One option for 'Other' is also there under drop-down if the identified user (linked to the sentinel hospital) is not doing the data entry.

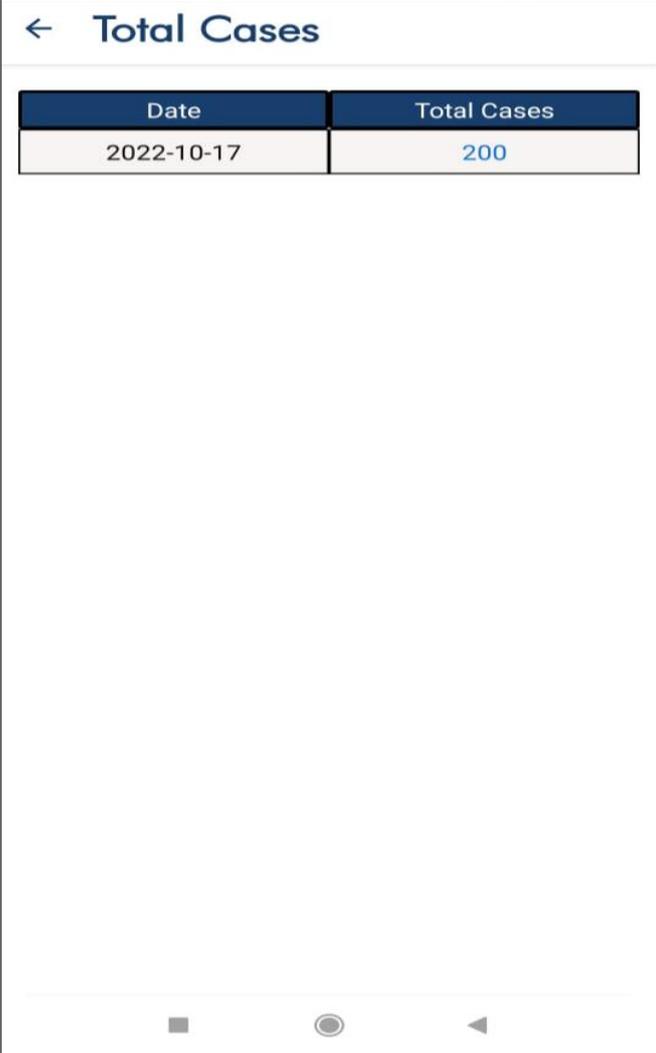
## 6.5 Step 5 – City Air Quality details in AQI and Air Pollutants

This screen gives information about the air quality details of the city in which the hospital is located, and this also gives information of the air pollution level of the city.



## 6.6 Step 6 – Dashboard showing Total Number of Hospital Emergency Cases

The dashboard under mobile app is meant to show the date-wise total emergency cases reported for that sentinel hospital.



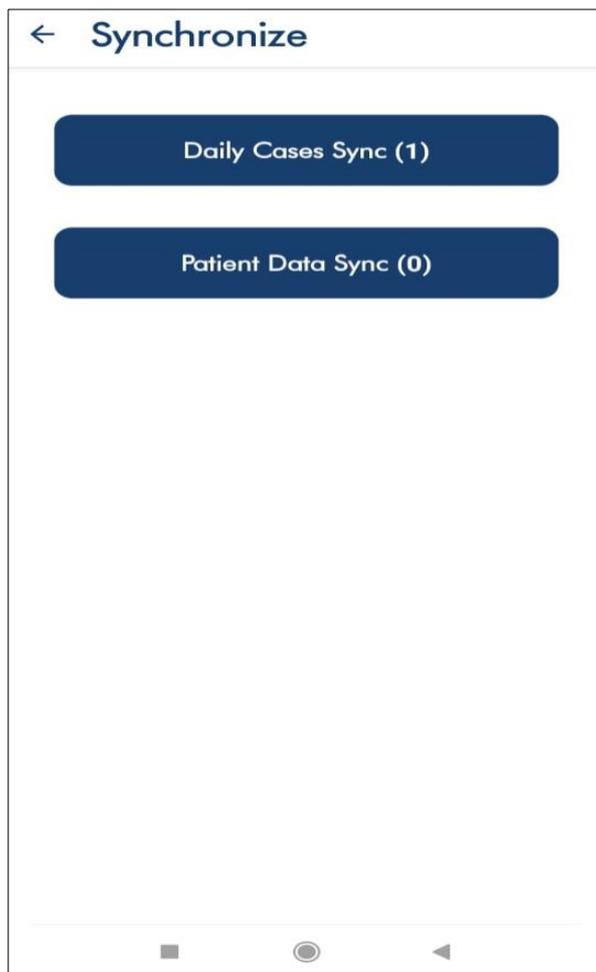
The screenshot shows a mobile application interface with a title bar containing a back arrow and the text "Total Cases". Below the title bar is a table with two columns: "Date" and "Total Cases". The table contains one data row for the date "2022-10-17" with a total of "200" cases. The bottom of the screen shows standard Android navigation icons.

Date	Total Cases
2022-10-17	200

## 6.7 Step 7 – Synchronize

There are two options under this section

- Synchronize: This function will submit newly entered patient data to the server.
- Update: This function will submit updated records which have been edited after submission.



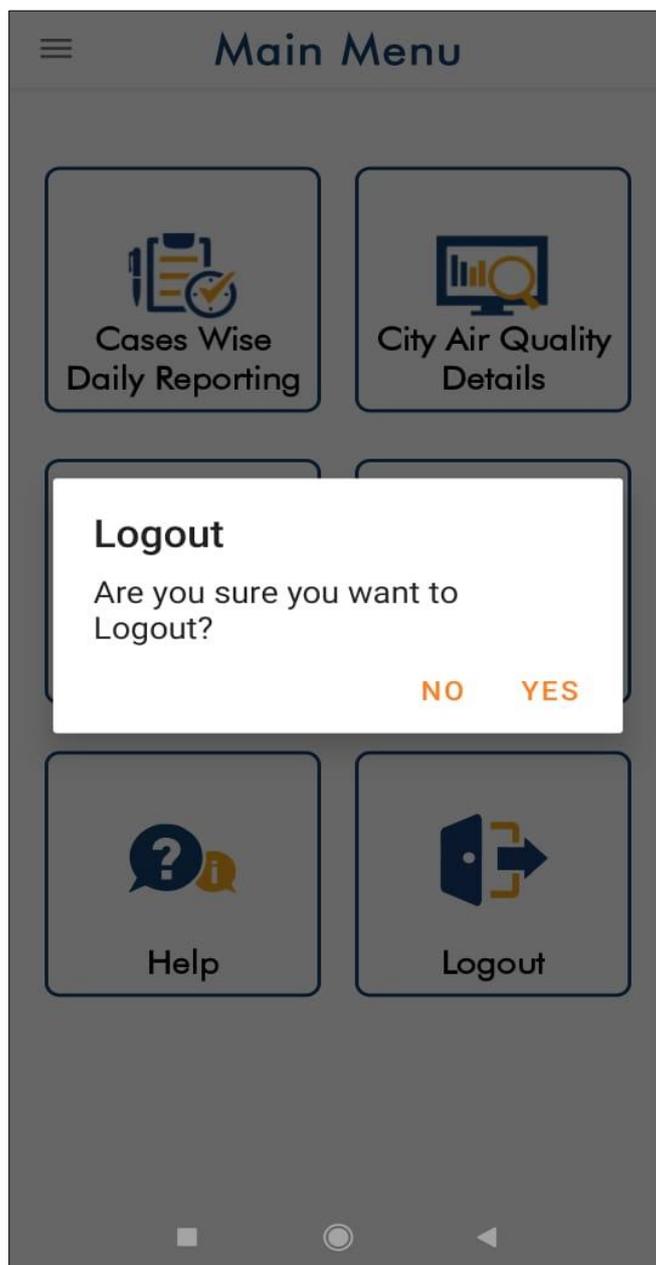
## 6.8 Step 8 – Help (Mobile App Technical Issues) If any needed by Users

The 'HELP' section is meant for app users to report any issues related to application and to get required support.

- If any technical query about the functions of the application, any technical issues or bugs they may contact to provided:
  - Mobile number
  - Email
- They may also download user manual

## 6.9 Step 9 – Logout Of the mobile app

If user want to logout form the application, this feature has been provided. User once logged in will remain logged in.





## Acknowledgement

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*Dr Rameshwar Sorokhaibam  
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