

# DogData Census App

## Instruction Sheet

1. Obtain a phone with an Android operating system. Ensure phone is fully charged.
2. Download the installation file to your phone[s] from the link provided and then follow your phone's instructions to install. As not downloaded from the Google PlayStore, your phone may require your additional permission to install.
3. Once the app is installed:
  - Allow all permissions (Location/Storage/Photo/etc)
  - Set a 3 character PhoneID
  - Set a 3 character OperatorID
  - Select the initial District > Municipality > Ward number
4. Note the GPS box at the top right of the screen. If it says **Searching** on a red background then a GPS fix has NOT been obtained and so a position cannot be recorded and the dog locations will not be shown on a map. An initial fix can take a while but will be quicker if outdoors and not shaded by buildings/trees/etc. A lower number indicates a more accurate fix and a green background indicates a location accuracy of better than 10 metres.
5. Decide which route will be followed for the work for the day. This may be along one street or it may cover a series of blocks. Please remember to change the District > Municipality > Ward if necessary. If you wish to change only the Ward use the green **Ward** button.
6. When a dog is seen, select one from each of the Ownership, Sex/Fertility, BCS/SCS categories, and Dog Type.
7. The abbreviations are:

**FRO** = Free roaming owned (Single household)

**FRC** = Free roaming community (Many households)

**FRS** = Free roaming stray (An animal that locals do not recognise or claim)

**Dog on Lead** = A dog being walked on a leash

**Spay Y** = Female spayed

**Spay N** = Female not spayed

**Lact** = Female lactating

**Preg** = Female pregnant

**Cast Y** = Male castrated

**Cast N** = Male not castrated

**Not known** = Sex/fertility not determined

**Pup** = Pup

(Male/Female/Unknown)

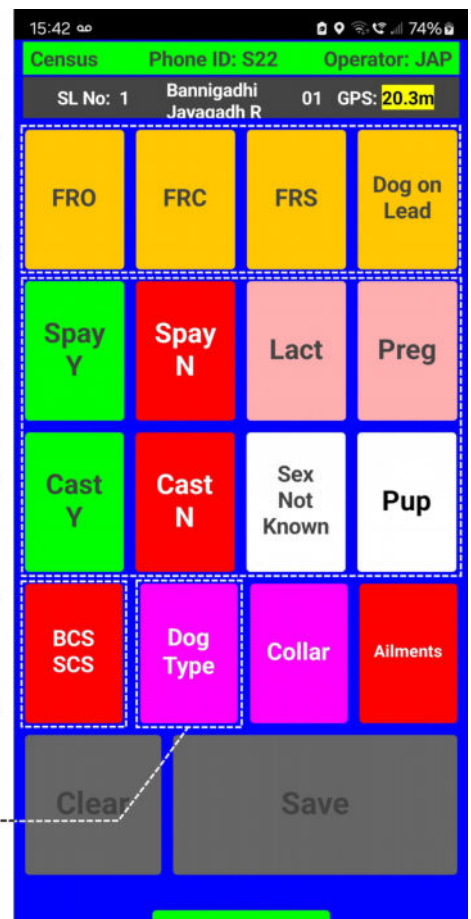
**Cast N** = Male not castrated

Ownership

Sex/Fertility

BCS/SCS

Dog Type



**BCS** = body condition score. Judge the animal's nourishment status on a score of 1 to 5 and press the most suitable score:

- 1= Emaciated
- 2=Thin
- 3=Moderate
- 4=Stout
- 5-Obese

**SCS** = skin condition score:

- 1=Normal
- 2=Mild
- 3=Moderate
- 4=Severe

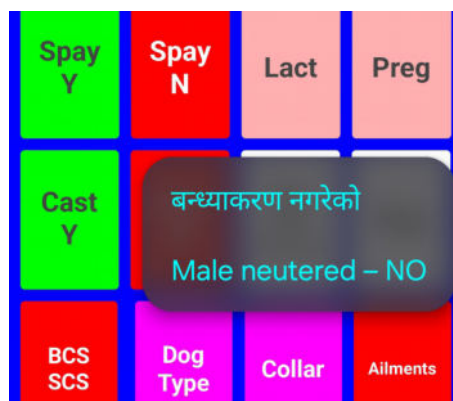
**Dog Type** – select from:

- Pedigree - Pure
- Cross - Mixed
- Nepali - Mongrel

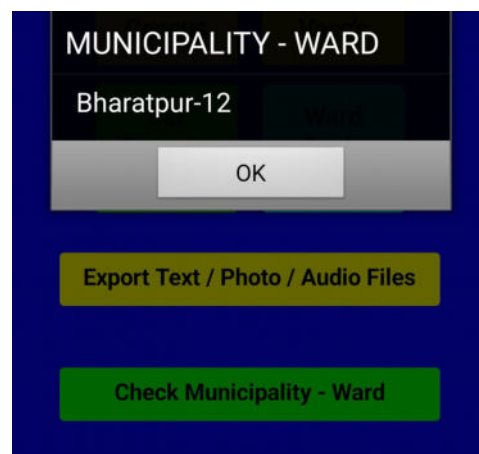
8. If the animal is wearing a collar press **Collar**
9. If the animal is sick or needs treatment press the **Ailment** button and tick one or more of the following:
  - Lamé
  - Amputee
  - TVT
  - Skin Problem
  - Eye Problem
  - Road accident injury
  - Sick
- ❖ Press **Done** once finished
10. If any of the entries are incorrect press **Clear** and start again
11. If all the entries are correct and any required photo/audio/text recorded, press **Save**

**The Save button is enabled only when a selection has been made from each of the Ownership, Sex/Fertility, BCS/SCS, and Dog Type sections**

12. A **LONG** press on any of the main screen buttons will display a popup with brief description of the button function in Nepali and English – as illustrated on the right. The popup will automatically disappear after 2 seconds.
13. Close the app by your usual method



14. In order to avoid the risk of data loss due to failure or loss of the phone we recommend that the new data is uploaded to the central server as soon as possible – ideally at the end of the census each day if an internet connection is available.
- If there is new data to upload the **Upload to SQL Database** button will be coloured orange
  - After a successful upload you will receive the message “*Census records uploaded*”
15. At any time you may generate a .zip file containing the .csv records and any relevant photos and audio recordings from the phone and email the .zip to your chosen destination by using the yellow **Export Text/Photo/Audio Files** button.
16. If an internet connection is available the current Municipality and Ward position can be checked using the green **Check Municipality-Ward** button, as illustrated on the right. In this example it shows the current location as Bharatpur Metro, Ward 12.



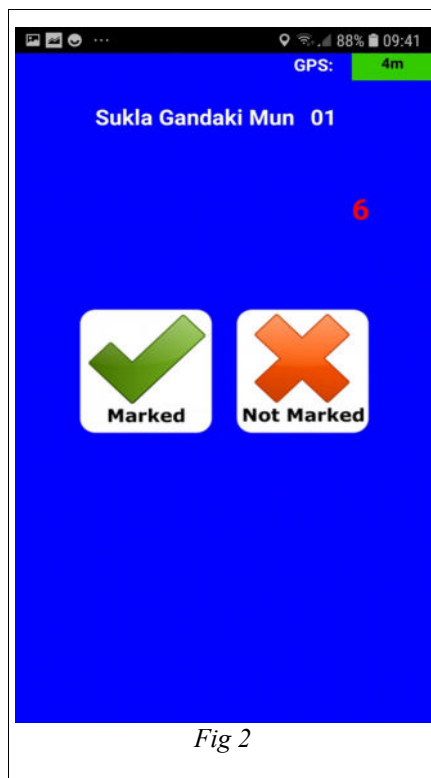
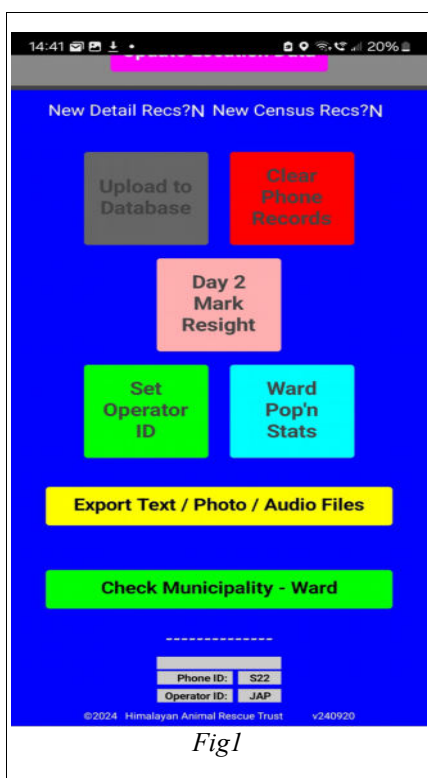
## Census Mark-Resight

Not all dogs will be seen on the first day of a census. In order to estimate the **total dog population** in an area it is helpful to carry out a Mark-Resight process. To do this you must be able to identify those dogs counted on the Census ("Day 1") which is often done by marking them with a safe and temporary ink or paint.

The Mark-Resight technique requires a second visit ("Day 2") to the exact same census area as was covered on "Day 1" to simply record whether the dog had been previously recorded on "Day 1".

The phone app has an inbuilt mark-resight facility and this applies the proportions of marked/not marked to calculate and display an estimate of the total population for the Ward using the '*Chapman*' formula.

If employed over several small areas this can give a useful multiplier with which to derive a Ward- or Municipality-wide estimate of total population.



17. Click the 'Day 2 Mark Resight' button (Fig 1 above)
18. Revisit the exact same route as was censused on "Day 1" and select 'Marked' or 'Not Marked' (Fig 2) as appropriate
19. Once completed, close the app, reopen, and click the 'Upload to Database' button (Fig 1)
20. Click the 'Ward Pop Stats' button (Fig 1) and the results will be shown as in Fig 3
21. In this example, 17 dogs were counted on "Day1" but, following the "Day 2" mark-resight exercise where 10 'Marked' and 6 'Not marked' were recorded, the total population is estimated as 26 and this represents a multiplier of 1.53 (Fig 3)

**Note these are dummy records for illustration only.**