

A. Sections in Department of Forest Research and Survey for surveillance of forest invasive species

Mandate of DFRS

1. To carryout inventory on a regular basis and update the forest resources in Nepal and
2. To carryout the forest research throughout the country to increase the productivity of the forests and provide appropriate technologies to the stakeholders

Sections of DFRS

- It has various sections in Forest Survey and Research Division. Among them, Remote Sensing, Cratography, Aerial Photogrammetry and Inventory Sections are under the Survey Division of DFRS.
- Plantations, and Natural Forest sections are under the Research Division of DFRS.
- These sections have direct or indirect role in surveillance of new forest invasive species.

Responsibilities of the Sections

These sections have different responsibilities

- Remote Sensing Section carries forest resource survey using remote sensing technology, updates existing maps and prepares forest resource maps.
- Cartography Section prepares forest maps.
- Photogrammetry Section purchases and keeps record of new aerial photos, and reprints copies of old aerial photos.
- Inventory Section is responsible for carrying out the national and District level inventory as well.
- Plantation Section is responsible to carry out the research at the national on various research areas of plantations including invasive species recently.
- Natural Forest Section is responsible to carry out the research on various forest types of natural forest, and various research areas of natural forest in Nepal.
- Remote sensing lab, cartography lab and soil lab are in DFRS.

B. Some Issues related to Surveillance of pests

1. To look out tree disorders in the forests or plantations

- Research Stations of DFRS are located in different parts of the country
- Staff working there can be used on identification of tree disorders but they need training.

2. A system of reporting disorders

- Reporting system to the central office, DFRS, and concerned organizations can be developed
- Appropriate reporting formats are needed and reporting mechanism to be developed

3. Reporting the problem to the responsible person and take necessary (either directly or refer it to a specialist)

- Reporting to a responsible person in the central office, DFRS; actions to be initiated by the designated responsible person
- If it is not solved in DFRS, assistance to be taken from specialists working in other organisations

4. Sending specimens for identification

- Firstly, specimens should be sent to the responsible person in the DFRS
- Then, it can be forwarded to the concerned organization or concerned specialist.

5. Availability of Experienced Forest Entomologist or Pathologist who can advise a course of action

- No Forest Entomologist or Pathologist in the DFERS; one lady (forest Pathologist) working in a different job in the Department of Forest
- Can be worked in coordination with Agriculture Entomologist and Pathologist working in Nepal Agricultural Research Council
- In the past, they have assisted in identifying pests in plantations and natural forests as well

6. Place for storing specimens safely (e.g. an air-conditioned room and museum cabinet plus someone to look after the specimens)

- No an air-conditioned room and museum cabinet in the DFERS

7. A facility for rearing immature organisms so they can then be identified (does not have to be a sophisticated laboratory)

- Not available in the DFRS
- To be worked in coordination with Nepal Agricultural Research Council

8. A system of data storage and retrieval of information

- Such system can be developed in the DFRS

9. Aerial photographs and images of forests and other landscapes

- Survey Department has aerial photos of 1991 and 1996, which cover forests and other landscapes of whole Nepal.
- DFRS needs to talk with the Survey Department on the use of these photos for forest invasive species
- DFRS has aerial photos of 1954, 1964 (whole Nepal) and 1972 (40 districts).
- Remote sensing images: ICONOS- resolution 4m x 4m (one district); JAFTA used LANDSAT for whole country (resolution: 30m x 30m); image of three districts (Kailali, Kanchanpur and Dadeldhura)- resolution: 2.5m x 2.5m

10. Forest maps, satellite coverage for your country(Google)

- Forest maps of Nepal are prepared by the DFRS
- No problem in equipments required for preparation of maps
- Satellite coverage of the country is available

11. GIS (different layers)

- Remote sensing section works on GIS also

12. What do you do in your country to detect pest problems in the forests?

- Reporting from the District Forest Offices, community forest user groups; direct observation during field visit; Discussion with user groups and DFO staff; analyzing specimens

13. Working Group/Networking

- DFRS, as a focal point will proceed to form a working group / Networking group of different specialists from different field. Representation will be from government, semi-government and NGOs

14. Possibility of new project

- FINNIDA Project is expected in DFRS in near future to carryout the national inventory using remote sensing and GIS technology



Thank You