

Applicability of Multi-Use of Management Practices in Forest Plantation

(A case study on “Dawatagolla Forest Plantation -DFP)

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Introduction

- ★ **Forest cover in Sri Lanka**
- ★ **Reasons for deforestation and its decreasing trends**
- ★ **Establishment of Plantation Forestry - 1870s**
- ★ **Necessity of the Multi-Use Forest Management**



Multi –use Forest Plantation

Definitions:

- * **Multi-use:** the management of a land or forest for more than one purpose, such as wood production, water quality, wildlife, recreation, aesthetics, clean air etc.
- * **Multi-use Forestry:** the Concept of forest management that combines two or more objectives, such as production of wood or wood-derivative products, forage and browse for domestic livestock, proper environmental conditions for wildlife, landscape effects, protection against floods and erosion, recreation, and protection of water supplies.
- * **Multi –use Forest management:** the Management of forest resources with the objective of achieving optimum yields of forest products from a given forest area without impairing the productive capacity of the forest.



Study Area

- ★ **Located at Allawwa Divisional Secretariat Division in Kurnagala District.**
- ★ **2 km from Alawwa town along the Allawwa-Giriulla Road.**
- ★ **It belongs to three Girama Niladari Divisions, namely Alawwa South, Meeriheliya and Paramaulla .G.N.D^s (Map -1)**
- ★ **Hilly topography from North to South(Elevation Ranges 300m-550m)**
- ★ **Annual rainfall nearly 1500-2500 mm yr⁻¹.**
- ★ **Monthly average temperature 25⁰ C to 28⁰ C.**
- ★ **Red Yellow Podzolic Soils.**
- ★ **Study area divided into two circle- TWC & JWC**



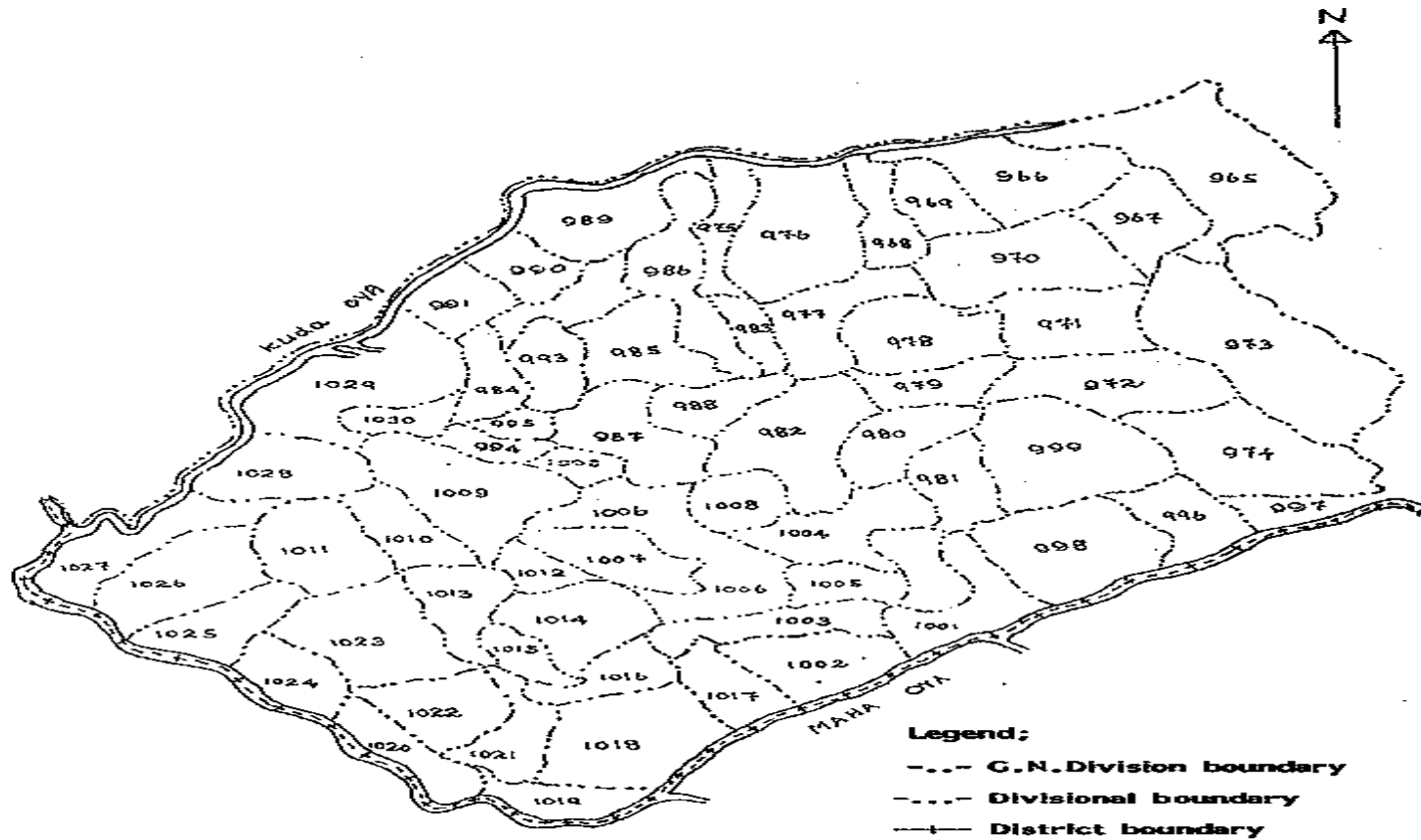
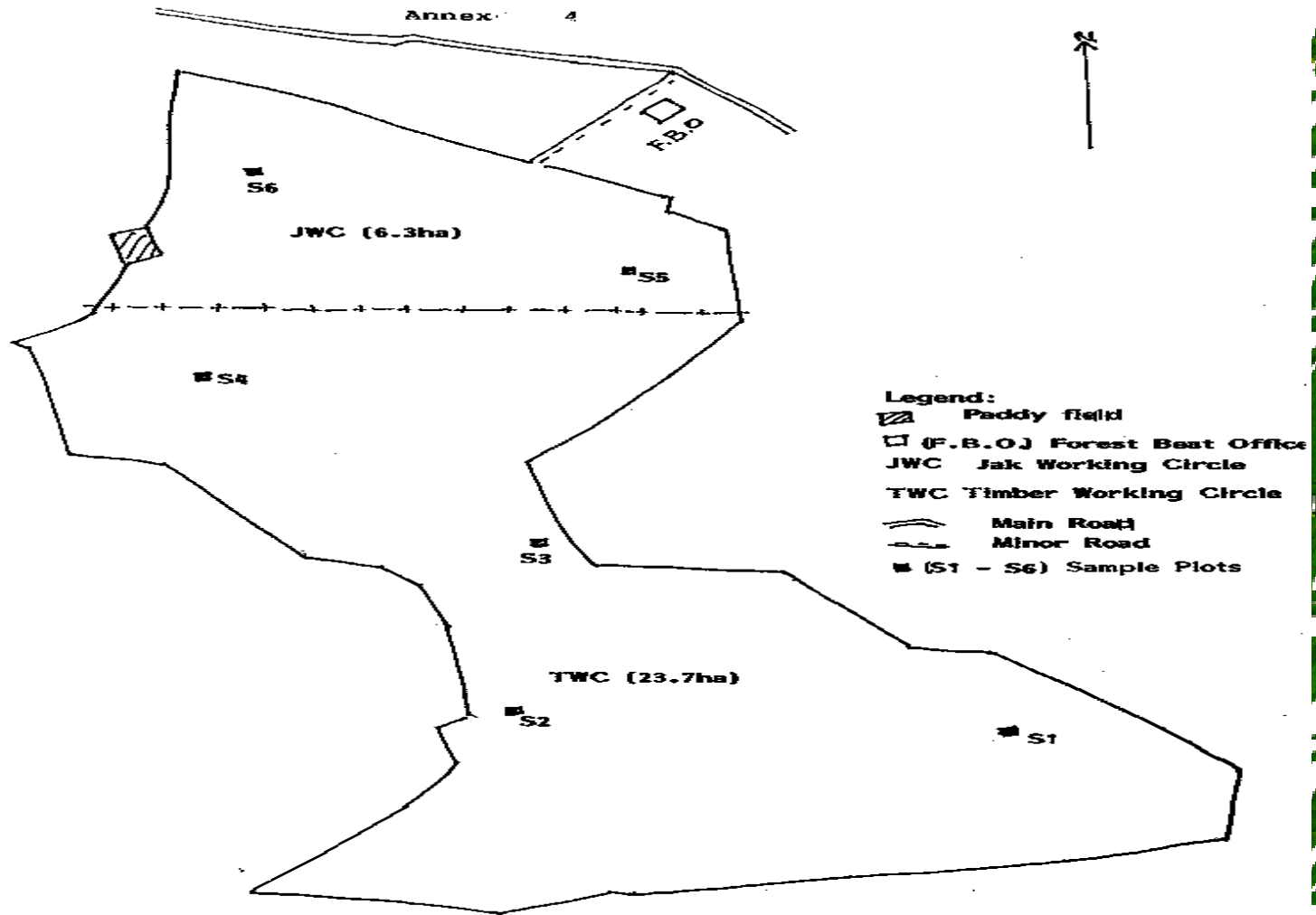


Figure : Administrative boundaries of Alawwa
Source : Divisional secretariat division - Alawwa, (2001).



- Legend:**
- Paddy field
 - (F.B.O.) Forest Beat Office
 - JWC Jak Working Circle
 - TWC Timber Working Circle
 - Main Road
 - Minor Road
 - (S1 - S6) Sample Plots

Map No: 01

Sketch Map of DFP
(Hand drawn sketch map, not to scale)

Objectives

- **Identification of the Management Issues in the DFP**
- **Analysis of existing Management Plan which could be applicable to the DFP**
- **Recommendations towards applicability of Multiple – Use Forest Management Strategies**



Management Issues

- * **Late felling-2000**
- * **No systematic Felling**
- * **Illegal felling**
- * **Regeneration problems**
- * **Lack of nature trails**
- * **No silvicultural practices**
- * **Garbage disposal (40% Dumping)**
- * **Lack of skills labour**
- * **Administrative problems**
- * **Financial problems**
- * **Communication and coordination gap**
- * **Lack of mutual understanding in-between Forest Dept and other related Institutes (FD and STC)**
- * **Political involvement**
- * **Encroachment (15% of land forest land encroached)**



Forest Management

1. Definitions

2. The branches of forest management

- * Silvicultural systems (Thinning, Pruning, Shelter wood system and selection system)**
- * Replanting**
- * Introducing new species.**
- * Monitoring and controlling**

3. Proposed Management System

- * Consistent approach**

4. Multiple-use forest Management



Recommendations towards Applicability of Multiple-Use Forest Management strategies

- ★ Preparation of effective strategic management plan
- ★ An operational plans should be prepared and implemented
- ★ A study on existing bio-diversity should be carried out



Cont....

❖ Steps recommended for tree felling

- 1. Before felling, the forest should be divided into felling coupes consisting each 5 ha.**
- 2. Selection of the trees for felling within the coupes should be carefully done.**
- 3. Mother trees should not be marked for felling**
- 4. Felling should be commenced from one end of the coupe and to be continued systematically to the other end.**
- 5. The felling should not damage young trees. To achieve this objective successfully, the expert field staff and guidelines are required.**
- 6. All damaged seedling should be cut back to the ground level.**
- 7. Felled trees should be converted into logs to obtain the maximum output and timber value.**



Cont....

- * Gaps should be regenerated with multipurpose species**
- * Selective system of management is a viable option for felling –proposed system in the study**
- * Public awareness programmes**
- * Introduce fast growing varieties under the consultation of Agriculture Department. The saplings and young plants should be protected with the plants guards, which will safeguard plants from animals and other disturbance**



Cont.....

- * The rules of existing forest policy should be applied to the DFP too.**
- * Identify the financial avenues to meet the future managerial expenses**
- * Sustain the DFP through multi-use forest management**
- * SWOT Analysis**



Thank You !

