No.4(6)/2001-Road

Government of Pakistan Ministry of Communication & Railways (Communications Division)

Islamabad, 23rd January, 2002

Subject: **TREE PLANTATION ALONG HIGHWAYS**

Reference National Highway Authority's letter No.58/Dir(Aff)/NHA/99/4 dated 8th January, 2002 on the above subject. A policy of Tree Plantation on National Highway and Motorway, as approved by Minister (Communications & Railways) is attached for implementation, please.

(ASHRAF M. HAYAT) JOINT SECRETARY

Maj. Gen. Farukh Javed Chairman, National Highway Authority Islamabad.

Copy to Mr. Rasheed Randhawa, Consultant, NHA

NATIONAL HIGHWAY AUTHORITY

No. 2(9)Cons(Aff)/NHA/2002/18

Islamabad, the 01 February, 2002

Subject: **TREE PLANTATION ALONG HIGHWAYS**

A Policy of Tree Plantation on National Highway and Motorway, as approved by Minister (Communication & Railway) vide Ministry of Communications & Railways, (Communications Division) letter No. 4(6)/2001-Road dated 23rd January, 2002, is attached for implementation, please.

(AZIZ UL HAQ MIRZA)
Member (Operations)

Distribution:-

- 1) All Regional Gneral Mangers
- 2) GM (LM & IS)
- 3) GM (Operations)
- 4) GM (C & S)
- 5) GM (Planning)
- 6) GM (Design)
- 7) DG (Administration)
- 8) Secretary NHA
- 9) Director (Legal)
- 10) Director (LM & IS)
- 11) Director (Afforestation)

Copy for information:-

Chairman NHA Joint Secretary, M/o Communication Member (Finance) Member (Planning)

Government of Pakistan Ministry of Communications & Railways

<u>Tree Plantation Policy for</u> <u>National Highways and Motorways</u>

1. OBJECTIVES

Apart from their aesthetic and landscape value, tree plantation along highways are source of economic benefit. There is substantial scope for additional plantation on the 8500 Kilometers of federal roads in the country. Thus a policy for plantation on highways is needed which will ensure that the objectives of aesthetics, safety, economy and efficiency are met and that the activity is placed on a suitable footing. This policy also ties in with government's overall afforestation programme.

Plantation provides following benefits. The policy and its implementation will ensure that these are realized:

- a) Protect road users from weather condition and provide shaded and comfortable travelling.
- b) Protect metaled road surface from sudden and extreme exposures to heat and cold to prolonged highway life and reduce maintenance cost.
- c) Protect road surface from drifting sand and snow. Reduce soil erosion on slopes and berms.
- d) Improve aesthetics and provide landscaped highways.
- e) Combat pollution caused by vehicular traffic.
- f) During national emergencies, help in concealment of troops deployment.
- g) Accentuate visibility of road curvature and relieve road users from boredom and monotony enhancing road safety.

2. PLANTATION TO BE PART OF ROAD CONSTRUCTION ACTIVITY

In new projects, funding for plantation will be provided in the PC-I in accordance with GOP's rules and practices. For existing projects, resort to contingencies may be made in accordance with rules. Scope of plantation activity will be governed by the financing available with NHA for the purpose or the amount that they may raise.

3. PLANTATION PATTERN

Plantation will be undertaken under the general principle that it will in no way endanger or affect condition of the road pavement and that it will not hinder smooth flow of traffic or disturb overhead and underground utility limes. Plantation will be undertaken in a manner that in the first row shrubs (starting from the berm of the road) would be planted and in the second and subsequent rows small trees and tall trees would be planted. Care will be taken that these do not fall on utility lines. Approach road to major towns shall be beautified through landscape treatment, using flowering trees and shrubs upto the distance of 10 kilometer. Where feasible, nurseries may also be established along with roads. Spacing distance between rows and plants shall depend on choice of species. As a general guidelines, it shall not be less than 3 meters for plant to plant and row to row spacing. The last row of trees shall be established along the exterior boundary of the ROW to define and protect it.

4. CHOICE OF TREES / SHRUBS

The choice of species will be according to local edaphic and ecological conditions. Preference will be given to indigenous trees such as Shisham (DALBERGIA SISSOO), Nim (AZADIRACHTA INDICA) to maximum extent, Kikar (ACACIA NILOTICA) and Eucalyptus species shall not be planted. No planting shall be done in median strip upto a minimum distance of 100 meters on either side of U-Turns to ensure visibility. Only grass cover may be provided.

5. INSTITUTIONAL ARRANGEMENT

In future all afforestation projects of NHA shall be executed, maintained and managed preferably by the local Forest Department of respective provinces as deposit work. The Forest Department shall mange and maintain establish plantations on behalf of NHA. The GM/Director responsible for a particular road will also be responsible for tree plantation.

For scientific and proper management of plantation by Provincial Forest Departments as deposit work, NHA shall coordinate with Provincial Forest Departments, to finalize mutually agreed terms and conditions including satisfactory monitoring and evaluation systems.

6. FUNDS

Funds for afforestation shall be provided by NHA on the basis of approved technical proposals to be submitted by Forest Departments to NHA for each site separately.

7. INFRASTRUCTURE

NHA will provide such infrastructure for implementation of this policy as it deems appropriate in observance of rules and procedures.

8. INVENTORY OF TREES

Proper inventory of trees of all age classes will be carried out and maintained by the provincial Forest Department. These inventories will be revised after every five years through actual marking and numbering of trees and preparation of Enumeration Registers to control damage of trees.

9. DEMARCATION OF ROW

ROW of federalized highways shall be demarcated by NHA on priority and pillars erected at suitable intervals before areas are placed at the disposal of Provincial Forest Departments for taking up new plantations and for management of old plantations.

10. FUTURE PLANS TO BE KEPT IN VIEW

While initiating afforestation programmes on median strips or within ROW on either side of the roads future expansion, alteration plans must be kept in view. NHA must be set aside space for overhead utilities in order to ensure discipline in use of ROW for utility services.

11. PLANTATION ON MEGA PROJECTS

Plantation will form an integral part of Mega road projects such as motorways. The local Forest Department shall be requested to take over established plantation for subsequent management.

12. REPLACEMENT OF FELLED TREES

Whenever trees are removed to facilitate any activity connected with road construction and improvement programmes, as a general rule, NHA shall arrange to plant at least twice the number in lieu of removed trees.

13. LEGAL COVER

NHA will propose amendments in National Highway Authority Act, 2001 to incorporate suitable sections to provide legal cover for establishment, maintenance and management of NHA plantations.