

BACKYARD PLANTING - A VITAL PRODUCTION SYSTEM OF SOCIAL FORESTRY IN NORTH - EAST INDIA

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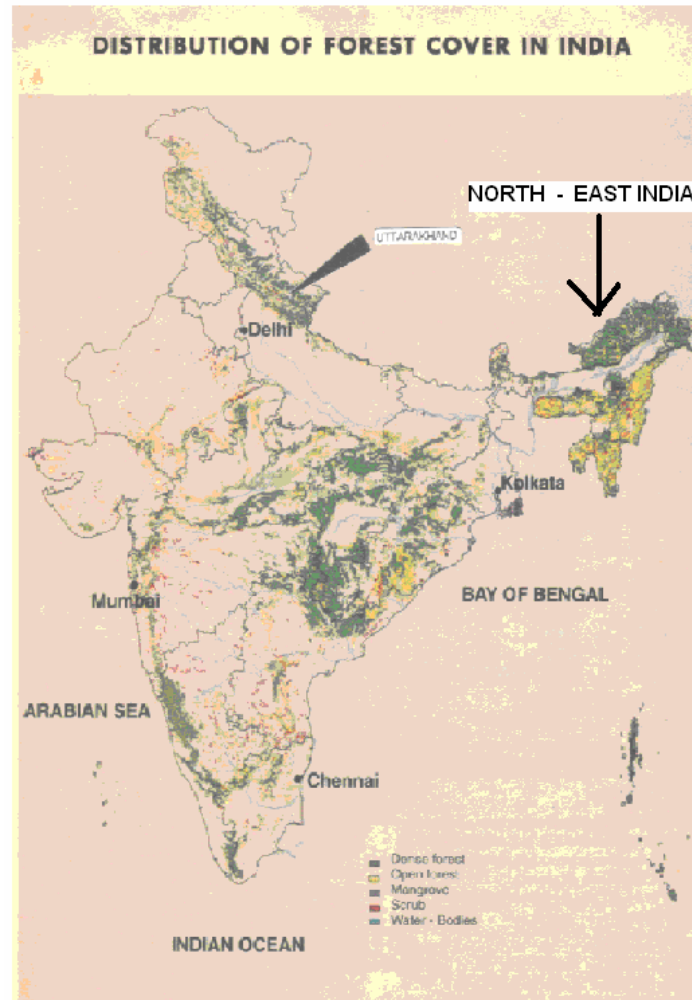
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INTRODUCTION

- **INDIA HAS A VARIETY OF HABITATS OF RANGING FROM TROPICAL RAINFORESTS TO ALPINE VEGETATION AND FROM TEMPERATE FORESTS TO COASTAL WETLAND. INDIA IS ALSO A CENTER OF AGRO BIODIVERSITY. IT IS A HOMELAND OF NEARLY 167 CULTIVATED SPECIES AND THE GLOBAL EXCHANGE OF BIOTA EXISTED SINCE HISTORICAL TIMES.**
- **THE PRE-HISTORIC ARYANS IN INDIA WERE WORSHIPPERS OF NATURE. THE EPIC VEDAS AND UPANISHADS WERE COMPOSED BY OUR SAGES SINGING, “MAY THE GOD, THE WATER, THE PLANTS AND THE FOREST TREES ACCEPT OUR PRAYER.....MAY THE BLESSINGS OF TREES PROTECT US FOREVER”. THE PURANAS HAVE SAID “*ONE TREE IS EQUAL TO TEN SONS BECAUSE TREES MEANS WATER, WATER MEANS BREAD AND BREAD IS LIFE*”.**

INTRODUCTION *Continues....*

THE FOREST COVER OF INDIA CONSTITUTES NEARLY 20.64 % OF THE TOTAL GEOGRAPHIC AREA OF 3.3 MILLION KM² OF THE COUNTRY.



INTRODUCTION *continues.....*

INDIA'S POPULATION IS INCREASING BY LEAPS AND BOUNDS, CAUSING A LOT OF DEFORESTATION ALL OVER THE COUNTRY. *CONSEQUENTLY,* THE FOREST FRONTIERS ARE ROGRESSIVELY RECEDING.

THE NORTH EASTERN PART OF INDIA IS BADLY AFFECTED BY THE FAULTY AGRICULTURAL PRACTICE OF SHIFTING CULTIVATION THAT LEADS TO DEGRADATION OF LAND, THEREFORE, SOCIAL FORESTRY ASSUMES MORE IMPORTANT IN THIS AREA THAN ANY OTHER PART OF THE COUNTRY.



INTRODUCTION *Continues....*



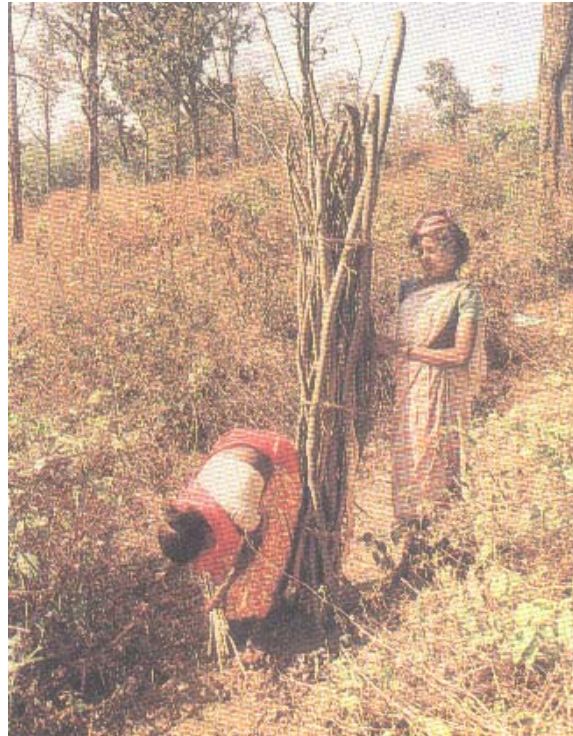
TIMBER READY FOR TRANSPORT TO CITIES AND FOR INDUSTRIES



A HILL SLOPE WHICH HAS BEEN JUST CLEARED OF ALL TREES

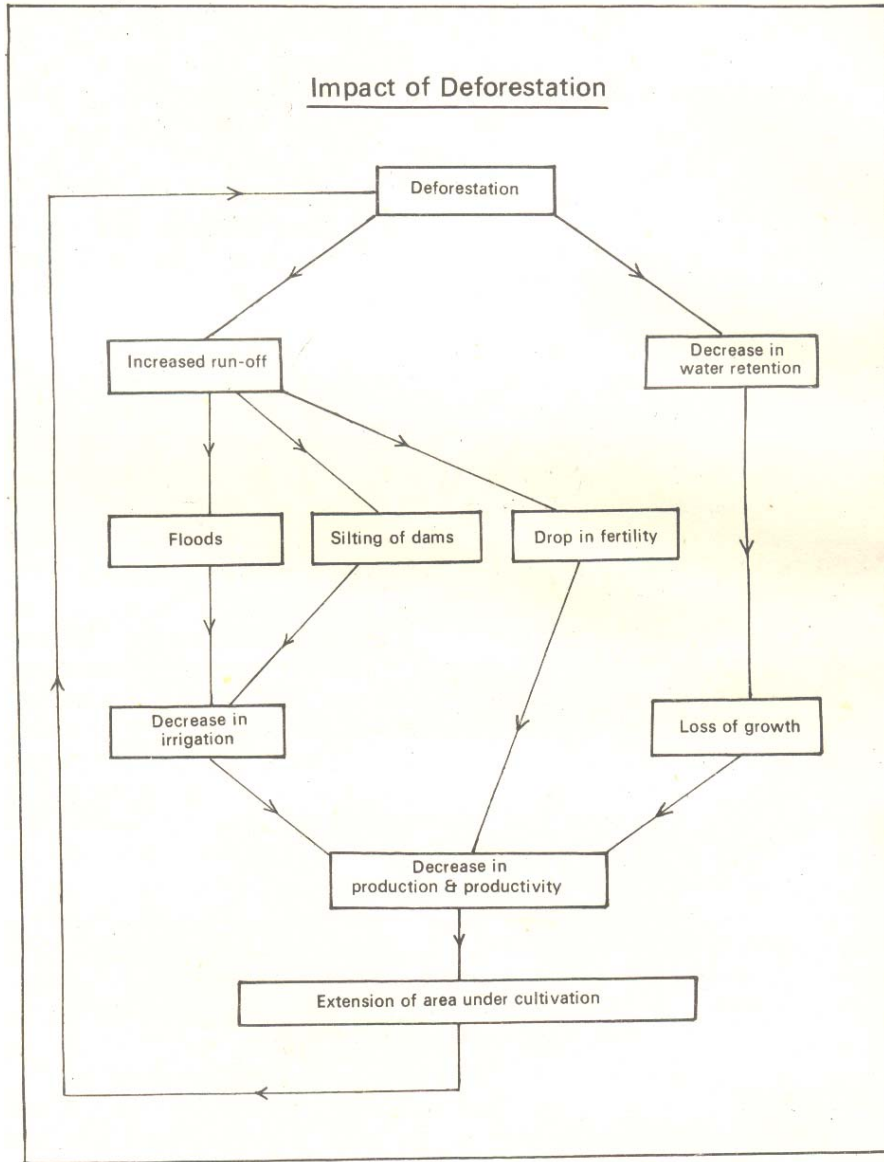
INTRODUTION *Continues....*

IN THE NORTH - EAST STATES OF INDIA, FORESTS MEET NEARLY 40% OF THE ENERGY NEEDS IN THE FORM OF FUEL WOOD WHICH IS OF THE ORDER OF ABOUT 235 MILLION M³ ANNUALLY AND THE GREEN FODDER FOR LIVESTOCK WHICH IS ALSO OF THE ORDER OF 882 MILLION TONS PER YEAR MAKING IT 50% OF THE REQUIREMENT WHILE REMAINING IS MET BY DESTRUCTIVE OVER-GRAZING WITHIN FORESTS. THIS HAS LEAD TO MASSIVE DEFORESTATION



WOMEN CARRYING FUELWOOD FROM THE FORESTS

Impact of Deforestation

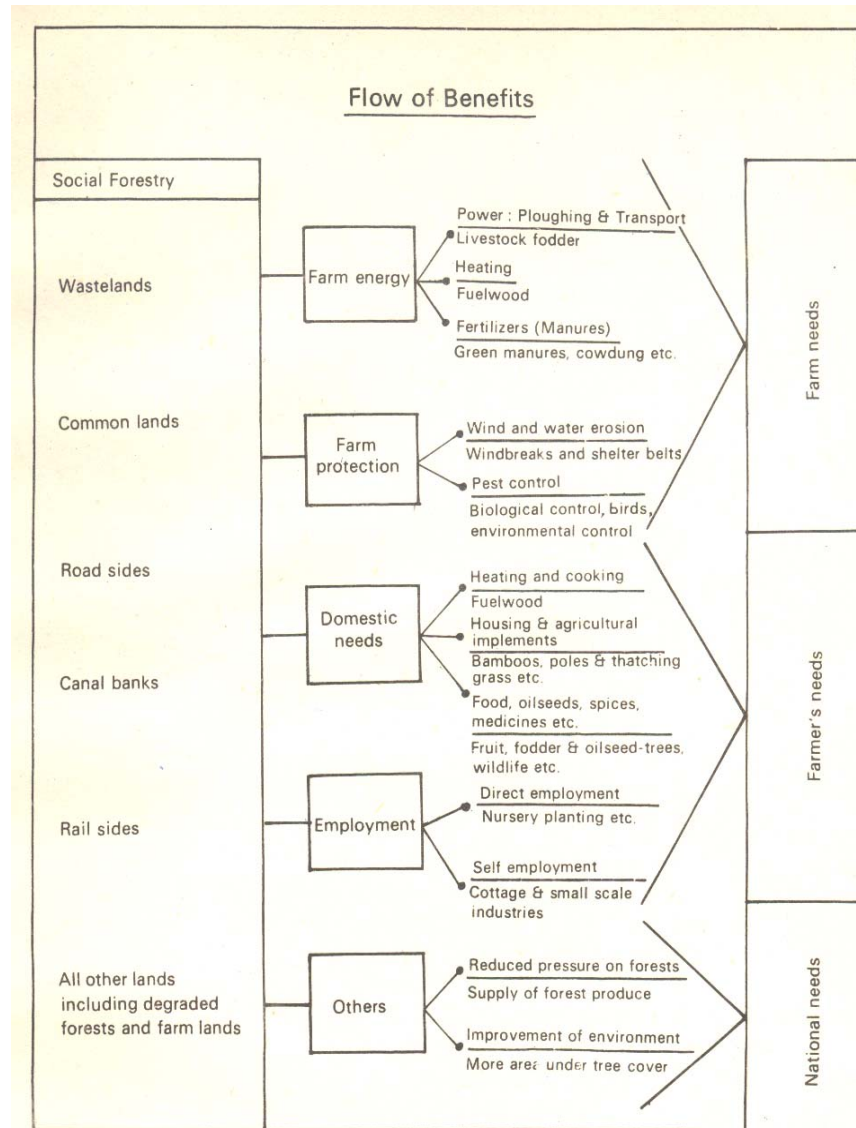


- **SEEING THE PROBLEMS OF DEFORESTATION WHICH HAS EFFECTED THE LIVELIHOOD OF MANY - THE NATIONAL COMMISSION ON AGRICULTURE, GOVERNMENT OF INDIA *INTRODUCED THE SOCIAL FORESTRY CONCEPT IN 1976* TO MEET THE FOLLOWING OBJECTIVES :**

- * **TO REDUCE PRESSURE FROM FORESTS AND MAKING USE OF ALL UNUSED, DEGRADED AND FALLOW LAND, INVOLVING FARMERS AND LOCAL PEOPLE IN FORESTRY ACTIVITIES.**

- * **IN ADDITION TO PLANTATION OF TREES ALONG RAILWAY LINES, ROADSIDES, RIVER AND CANAL BANKS, THE PLANTATION OF SOME SELECTED POPLAR TREES / WILLOWS WERE RAISED AS BACKYARD PLANTATION BY COMMON MAN SPECIALLY IN NORTH EASTERN REGION OF INDIA SO AS TO MEET THE GROWING DEMAND FOR TIMBER, FUEL WOOD, FODDER ETC, THEREBY, REDUCING THE PRESSURE ON TRADITIONAL FOREST AREA AND INCREASING THE INCOME OF THE FAMILY.**

BENEFITS OF THE SOCIAL FORESTRY :



WHY BACKYARD PLANTATION ?

- BACKYARD PLANTING IS AN AGE-OLD PRACTICE IN INDIA.**
- ONE OF THE COMPONENTS OF SOCIAL FORESTRY WHICH IS THE EASIEST TO IMPLEMENT IS THE BACKYARD PLANTING.**
- IN RURAL AREAS, A MAJORITY OF HOUSEHOLDS HAVE A BACKYARD WHERE TREES ARE GROWN. IN FEW STATES SUCH AS WEST BENGAL, AND ANDHRA PRADESH, SOME INDUSTRIES DEPEND PARTLY ON THE RAW MATERIAL SUPPLIED FROM THE BACKYARD. FOR EXAMPLE, THE TITAGHAR PAPER COMPANY OBTAINS LARGE AND SUBSTANTIAL QUANTITY OF BAMBOO FROM THE BACKYARDS OF THE NORTH EAST AREAS.**

BACKYARD PLANTATION ? *Continues*

- **HABITANTS OF NORTH - EAST INDIA HAVE BEEN RAISING, WILLOW (*SALIX*) AND BAMBOOS IN THEIR BACKYARD.**
- **IT IS ONE OF THE EASIEST TO IMPLEMENT AND ALSO IT IS THE MOST REWARDING COMPONENT OF SOCIAL FORESTRY TO REDUCE POVERTY AND IMPROVE FOOD SECURITY IN AN OTHERWISE BACKWARD AREA WHERE THE COUNTRY'S DEVELOPMENTAL BENEFITS HAVE NOT REACHED FULLY.**

EXAMPLE OF BACKYARD PLANTATION



EVERY 5 YEARS THESE TREES FETCH AS MUCH AS RUPEES 100,000 (US\$ 2000) IN TIMBER



ON ONE ACRE OF LAND, NEARLY 200 POPLAR TREES ARE GROWN WITHOUT AFFECTING OTHER CROPS

EXAMPLE OF BACKYARD PLANTATION



BAMBOO

*a source of livelihood
in the north-east*



INDIA'S BAMBOO TREASURE-TROVE

Region	No. of Species
NORTH-EAST	92
NORTH-WEST	19
GANGETIC PLAINS	7
PENINSULAR	21
ANDAMAN & NICOBAR	6
	<hr/>
	145

Indian Bamboo forests occupy
an area of 10 million ha.
which comprises about
13%
of the total forest area of
the country.

METHOD AND MATERIAL

BACKYARD PLANTING IS FAMILY BASED AND IS LARGELY NEED-ORIENTED.

- **POPLAR (*POPULUS*), WILLOW (*SALIX*), ARE GROWN IN NORTH EASTERN REGION WHICH HAVE A GREAT ECONOMIC VALUE AS SOME OF THE INDUSTRIES DEPEND ON THEM.**
- **ELABORATE INFRASTRUCTURE IS NOT NECESSARY.**
- **IRRIGATION OF BACKYARD PLANTS IS VERY EASY AND DOES NOT COST ANYTHING AS THE HOUSEHOLD WATER IS USED FOR THE PURPOSE.**
- **BACKYARD PLANTING HAS, THEREFORE, GREAT POTENTIAL IN INDIA**

THE DISTRIBUTION OF SPECIES BASED ON THE ANNUAL RAINFALL AND TYPE OF SOIL IN DIFFERENT PHYTO - GEOGRAPHICAL REGIONS OF INDIA CONSISTS OF :

- 1. DECCAN PLATEAU IN THE SOUTH – DRY DECIDUOUS FORESTS (TEAK)**
- 2. GANGETIC PLAIN OF NORTH INDIA – MANGROVES**
- 3. HIMALAYAS (A) TROPICAL ZONE
(500 – 1600 M) –
EVERGREEN and
DECIDUOUS
FORESTS

FLAME OF
FOREST – *BUTEA***

B) TEMPERATE ZONE

**(1600 – 3500 M) – CONFERS AND CUPULIFERS ARE
DOMINANT.**

**IN THE HIGHER
TEMPERATE SUB – ZONE**

**DEODAR
(*CEDARS DEODARA*)
PREDOMINATES
TOGETHER WITH
BIRCH (*BETULA*),
OAK (*QUERCUS*)
POPLAR (*POPULUS*),
WILLOW (*SALIX*),
MAPLE (*ACER*) etc.**

**© ALPINE ZONE
(3500 -4500 M)**

LOW SHRUBS AREA

DIFFERENT VARIETIES OF POPLAR AND WILLOW RAISED IN N.E. INDIA

- **LARGE TREES - GROWN BY BRANCH CUTTING, NAMELY, *SALIX ALBA (BIS)* AND *SALIX BABYLONICA (MAJNU)* – USED FOR MAKING CRICKET BATS, MATCHWOOD, TOOL-HANDLES, FUEL, FODDER, LIGHT TIMBER AND PULPWOOD.**
- **SMALL TREE - *SALIX DAPHNOIDES (BHASHI, BASHROI)* – GROWN BY BRANCH CUTTING, SUITABLE FOR BASKET MAKING, FUEL, FODDER.**

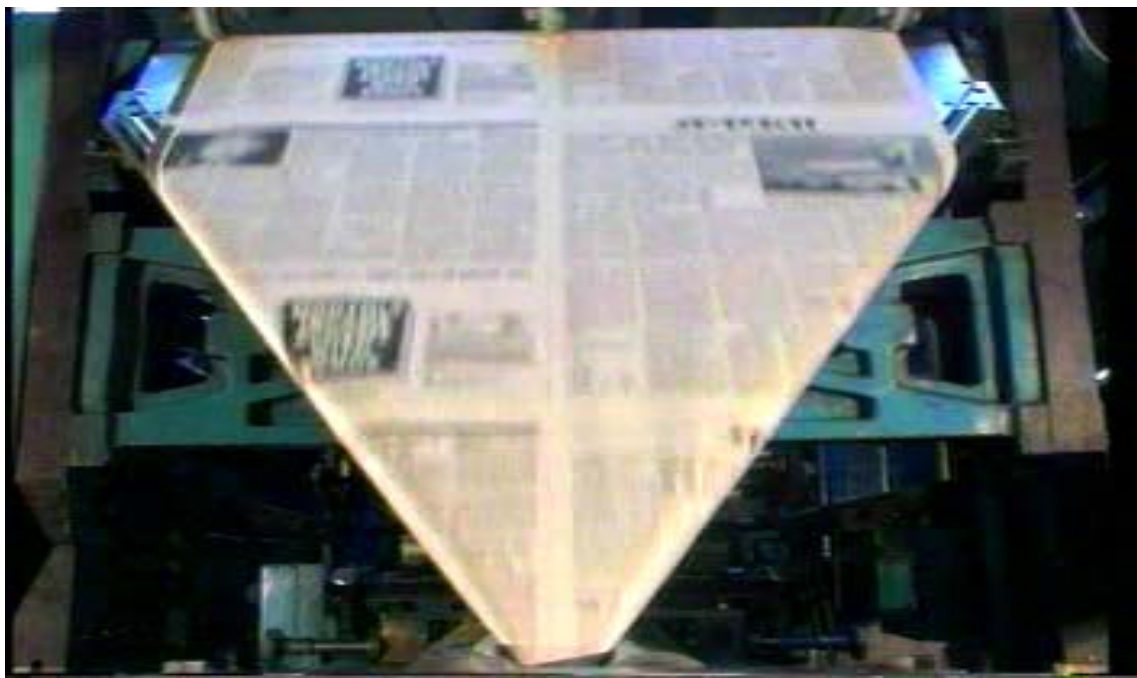
**SMALL TREE - *SALIX DAPHNOIDES* (BHASHI,
BASHROI) – SUITABLE FOR HUT MAKING,
BASKET MAKING, CARPET MAKING, FUEL
AND FODDER.**





LARGE TREE - *SALIX ALBA (BIS)* AND *SALIX BABYLONICA (MAJNU)* –USED FOR MAKING LIGHT TIMBER, PULPWOOD, CRICKET BATS, MATCHWOOD, TOOL-HANDLES, FUEL AND FODDER





INITIATIVES FROM THE GOVERNMENT OF INDIA :

- **PEOPLE ARE AT THE CENTRE STAGE OF PLANNING FOREST MANAGEMENT IN INDIA. THE NATIONAL AND STATE LEVEL PLANNING WITH THE PARTICIPATION OF PEOPLE STARTED IN 1991 IN THE FORM OF JOINT FOREST MANAGEMENT WHICH EMPHASIZED DEVELOPMENT OF PARTNERSHIP WITH FOREST FRINGE PEOPLE AND THE GOVERNMENT OF INDIA.**
- **PRESENTLY, THERE ARE 1,06,479 JFMC'S MANAGING AN EXTENT OF 22.02 MHA INVOLVING 21.99 MILLION PEOPLE OF FOREST AREA.**

RESULTS

- **THE TEMPERATE ZONE OF THE HIMALAYAS RANGING IN ALTITUDE FROM 1600 TO 3500M REPRESENTING ONE OF THE PHYTOGEOGRAPHICAL REGIONS OF INDIA, CONSIDERED BEST SUITED FOR BACKYARD PLANTING OF DIFFERENT VARIETIES OF WILLOW (LARGE TO SMALL TREES) GROWN BY BRANCH CUTTING, NAMELY, *SALIX ALBA (BIS)* – LARGE TREES USED FOR MAKING CRICKET BATS, MATCHWOOD, TOOL - HANDLES, FUEL AND FODDER, *SALIX BABYLONICA (MAJNU)* – LARGE TREES USED FOR FODDER, FUEL AND ORNAMENTS AND *SALIX DAPHNOIDES (BHASHI, BASHROI)* – SMALL TREE SUITABLE FOR BASKET MAKING, FUEL, FODDER.**

CONCLUSIONS

- **THE ACTIVITY OF RAISING WILLOW AND BAMBOOS IN THEIR BACKYARD AND THEIR MARKETING AS A PART OF SOCIAL FORESTRY IN NORTH - EAST INDIA, IS A LABOR – INTENSIVE ACTIVITY AND LARGE SCALE ADOPTION OF THIS PROGRAM HAS NOT ONLY TAKEN EMPLOYMENT TO THE VERY DOOR-STEPS OF THE UNEMPLOYED BUT HAS HELPED GENERATE INCOME THROUGH EMPLOYMENT AND THROUGH THE SALE OF SURPLUS GOODS AND SERVICES THUS, ENHANCING THEIR CONTRIBUTION TO THE REDUCTION OF POVERTY.**

RECOMMENDATIONS

- **TILL NOW, LACK OF DATA ON SUCH FOREST RESOURCES AND FOREST PRODUCTIVITY RESULTED IN A SERIOUS UNDERESTIMATION OF THEIR CONTRIBUTION TO GROSS DOMESTIC PRODUCT – A SITUATION WHICH ALMOST ALWAYS LEADS DECISION - MAKERS TO OVERLOOK THE IMPORTANCE OF THE SOCIAL FORESTRY TO LIVELIHOODS AND NATIONAL ECONOMIC DEVELOPMENT. SOCIAL FORESTRY IS FORESTRY BY THE PEOPLE AND, THEREFORE, IT IS *RECOMMENDED* THAT THE BACKYARD PLANTING PATTERN OF NORTH-EAST REGION BE TIED UP TO WIDER NATIONAL AGENDAS, INCLUDING THOSE ASSOCIATED WITH POVERTY REDUCTION IN OTHER STATES ALSO OF THE COUNTRY.**

THANK YOU