





Report of the National Workshop on Forest Products

Statistics in India

13-16 May 2008

Venue: InterContinental The Grand, New Delhi



Ministry of Environment and Forests Government of India Paryavaran Bhawan, CGO Complex, Lodhi Road New Delhi - 110 003 (INDIA)

July, 2008

Acronyms

AAR	Annual Administrative Report	
Addl. DG	Additional Director General	
AP	Andhra Pradesh	
APCCF	Additional Principal Chief Conservator of Forest	
ATMA	Agricultural Technology Management Agency	
CBEC	Central Board of Excise and Customs	
CDs	Compact Disks	
CSO	Central Statistical Organisation	
CUM	Cubic metre	
DIG	Deputy Inspector General	
DRI	Directorate of Revenue Intelligence	
FAO	Food and Agriculture Organisation	
FD	Forest Department	
FM	Frequency Modulated	
FP	Forest Products	
FSI	Forest Statistics India	
FTA	Free Trade Agreement	
GDP	Gross Domestic Product	
GIS	Geographic Information System	
GOI	Government of India	
GPS	Global Positioning System	
HDPE	High density polyethylene	
HNL	Hindustan Newsprint Ltd.	
HRD	Human & Resource Development	
IASRI	Indian Agricultural Statistics Research Institute	
ICFRE	Indian Council of Forestry Research and Education	
ISI	Indian Statistical Institute	
ISS	Indian Statistical Service	
ITTO	International Tropical Timber Organization	
ITC (HS)	International Trade Classification (Harmonization System)	
LPC	Legal Procurement Certificate	
NTFP	Non-Timber Forest Product	
NGOs	Non-Government Organisations	
IPRITI	Indian Plywood Industries Research and Training Institute	
INA	Information Need Analysis	
IT	Information Technology	
ITTA	International Tropical Timber Agreement	
JFMCs	Joint Forest Management Committees	
JFSO	Joint Forest Sector Questionnaire	
JQ	Joint Questionnaire	
KFRI	Kerala Forest Research Institute	
MC	Meeting Co-ordinator	
MIS	Management Information System	

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MoEF	Ministry of Environment and Forests
MP	Madhya Pradesh
MSP	Multi-Stakeholder Partnership
MT	Metric Tonne
NE	Northern Eastern
NEERI	National Environmental Engineering Research Institute
NFDMS	National Forestry Database Management System
NGOs	Non-Governmental Organisations
NIC	National Informatics Centre
NSS	National Sample Surveys
NSSO	National Sample Survey Organisation
NTFPs	Non-Timber Forest Products
NWFPs	Non-Wood Forest Products
OTS	Outside Traditional Forestry
OTFS	Outside Traditional Forestry System
PCCF	Principal Chief Conservator of Forest
PWD	Public Works Department
PRA	Participatory Rural Appraisal
PTA	Preferential Trade Agreement
R&D	Research & Development
SFD	State Forest Department
SU	Survey & Utilisation
TFRS	Traditional Forest Reporting System
TOF	Trees Outside Forest
TP	Transaction Processing
TTZ	Taj Trapezium Zone
U.P.	Uttar Pradesh.
UPSEB	Uttar Pradesh State Electricity Board
USA	United States of America
UT	Union Territory
VPCs	Village Protection Committees
WBP	Weather and Boil Proof

PREFACE

India is signatory to International Tropical Timber Agreement (ITTA) wherein various demand and supply, production and consumption data regarding timber and fuelwood etc. are required on an annual basis on the prescribed Joint Forest Sector Questionnaire (JQ1 and JQ2 forms). Besides fulfilling the International commitments, the collection, compilation, validation and dissemination of forestry statistics is also urgently required for fulfilling the National commitments to policy and planning etc. It makes it highly essential that the entire forest statistical system needs to be carefully reviewed, researched and reporting capacity reinforced in an appropriate manner. Only this way, the contribution of forests to social, economic and ecological well-being of the Nation can be recognized with the development support to the sector thereby maintaining the health of the forests in an optimum condition. However, the present level of statistical reporting in the forestry sector is far from satisfactory.

Annual Administrative Reports, prepared at the Division level, are the basic part of the reporting system in forest administration. The basic data originates at the Range level in a set of forms standardized for the whole State. These data are eventually used for Administrative Reports/Annual Reports and performance budgets. The above channels of reporting need to be continuously improved, updated and reinforced as integral parts of the forest statistical system. Apart from the information on administrative part, sectoral information proves crucial for helping plan/policy related deliberations. Lack of such information has proved crucial in forestry sector planning.

In order to strengthen the reporting system of forest product statistics, a four day National Workshop on 'Forest Products Statistics' sponsored by the International Tropical Timber Organization (ITTO), with its headquarters in Japan, was organized by the Ministry of Environment and Forests (MoEF), Govt. of India from May 13-16, 2008 at Inter Continental The Grand, New Delhi.

It is hoped that workshop has been very successful in sensitizing the State Forest Departments and the various stakeholders in the forestry statistics of India on the recent international trends in forestry sector reporting systems and the status of India with respect to them so that gap in submission of forestry statistics to Indian Council of Forestry Research & Education and Ministry of Environment & Forests is reduced to the minimum and requisite information is available for reporting.

The Workshop also created the awareness among the various State Forest Departments for submitting the data in complete form to fulfill the National and International commitments. Moreover, the recommendations of the Workshop will be useful in drafting a road map for the forestry statistics in India and will help in considering the concerned plan for development of National Forestry Database Management System which can provide comprehensive and exhaustive solutions to the problems of the data management in the forestry sector of the country.

Dr. Bipin Behari Deputy Inspector General of Forests Ministry of Environment & Forests Government of India

Acknowledgement

A four day National Workshop on 'Forest Products Statistics' sponsored by the International Tropical Timber Organization (ITTO), with its headquarters in Japan, was organized by the Ministry of Environment and Forests (MoEF), Govt. of India from May 13-16, 2008 at Inter Continental The Grand, New Delhi.

It would not have been possible to organise the workshop without active and full support of Secretary (Environment and Forests), Shri P. R. Mohanty, Director General (Forests), Mr. G.K. Prasad, Additional Director General (Forests) and other officials of the MoEF. Their contribution is gratefully acknowledged.

The workshop was inaugurated by Thiru Sevugan Regupathy, Hon'ble Minister of State, Forests and Wildlife, Ministry of Environment and Forests (MoEF), Government of India. We are indebted to him for sparing time from his busy schedule, for the kind encouragement and setting the environment of the workshop. Dr. Steven E. Johnson from ITTO, Mr. Felice Padovani from Food and Agriculture Organisation (FAO) and Ms. Frances Marie Maplesden from ITTO helped at every step right from designing to conduction of the workshop. Their expertise was of immense use for deliberating upon the issue and spreading the message of maintaining records and accordingly top priority to reporting work for the benefit of the country. Their contribution is duly acknowledged.

Thanks are also due to Dr. S.P. Sharma, Statistical Advisor, MoEF, Dr. K. D. Singh, Ex-FAO Expert and various delegates from states and UTs in India who not only actively participated but also Chaired/Co-chaired various sessions in the workshop and made very useful contributions through their valuable comments.

Thanks are also due to Sh. A.K. Joshi, IFS, who very nicely discharged the responsibility of introducing the session and the speakers as Meeting Coordinator.

Last but not the least, thanks are due to Dr. Y.P. Gupta, Local-Consultant for documenting the proceedings of the workshop and Mr. Shyam Mansharmani, the Event Manager for making the good arrangements for the workshop and the comfortable stay of all the participants.

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Dr. Bipin Behari Deputy Inspector General of Forests Ministry of Environment & Forests Government of India

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Executive Summary

1. Introduction

The four day National Workshop on 'Forest Products Statistics' sponsored by the International Tropical Timber Organization (ITTO), with its headquarters in Japan, was organized by MoEF, Govt. of India from May 13-16, 2008 at InterContinental The Grand, New Delhi, primarily to sensitize the State Forest Departments and the various stakeholders in the forestry statistics of India on the recent international trends in forestry sector reporting systems and the status of India with respect to them so that gap in submission of forestry statistics by ICFRE and MoEF is reduced to the minimum and requisite information is available for reporting.

The workshop started with inauguration by Thiru Sevugan Regupathy, Hon'ble Minister of State, Forests and Wildlife, Ministry of Environment and Forests, Government of India. The Honourable Minister was very happy that this workshop was being organized at a time when the forestry sector is about to witness a renaissance in technological adaptations in its working, whether it is the government owned State Forest Departments or private forest based industries or forestry research organizations. The Honourable Minister also observed that the relationship between India and ITTO will surely help in realizing the kind of output desired for India.

2. **Presentations and Discussions**

Session 1: Strengthening of collection of Forest Products Statistics – Roles and Responsibilities of States/UTs Governments

The first business session started with the presentation by nine State Representatives from Andhra Pradesh, Assam, Gujarat, Madhya Pradesh, Kerala, Maharashtra, West Bengal, Haryana and Karnataka. All the five regions of India were thus duly represented.

Session 2: Trends in reporting of Forest Products Statistics

In session 2, presentations were made by experts and representatives of ITTO and FAO. The key features of the presentations were:

i. Presentation by F. Padovani, FAO on 'The basic role and responsibilities of a Forestry Statistical Office'

- He gave a very detailed presentation and the trends in reporting forest products statistics.
- He started with objectives of a forestry statistical office and described organisation of the statistical information cycle, which is the key component of a forestry statistical office.
- Mr. Padovani informed that sometime surveys are also carried out for having high quality data. He also mentioned that data should be accessible, analysed and disseminated regularly. State wise data are to be gathered and India can do it easily.

ii. Presentation by Dr. Bipin Behari, DIG (SU), MoEF on 'National Forestry Database and Policy Decision'

- In India, several organisations are publishing forestry data/information but Ministry has given the mandate to ICFRE, which had published 'Forest Statistics India 2003' (FSI, 2003) whereas 'Forest Statistics India 2005' is to be published soon. FSI, 2003 records show about 50% data are not available. Continued efforts and follow-up done by the Ministry improved the situation and now around 25% to 30% of data are not available. Reasons are many. Some State Governments are not providing data or if given they provide incomplete data.
- FAO and ITTO play a major role in dissemination of forestry statistics. They publish regular volumes of journals on Forestry Statistics
- Dr. Bipin Behari also discussed the data collection problems. He told that some States are having very good system whereas some States are not maintaining the system and not preparing the Annual Administrative Report which is very important as it deals with the issues like production, consumption, utilisation etc.
- State-wise data collection is not uniform in terms of reporting unit of measurement. Several reasons are responsible for that. There is no National Forestry Database Network at present in the country and State Governments are looking to Central Government for its solution.
- As a result, contribution of forestry sector to GDP remains unaddressed, underestimated because of lack of complete data.

There was discussion after the presentations. Several questions were asked to the presenters and few comments were also made by the participants. The problem which emerged from the discussion was receipt of funds in time. The small amount along with the huge time gap widens the problem of finance in different States.

Another point of discussion was relating to improvement in facility in terms of in-house facility versus outsourcing. After a lot of discussion on the issue, Mr. Steve E. Johnson from ITTO suggested that something can be outsourced but not everything. The key is to have trained and technical persons at administrative and infrastructural level. But different States have different requirements and we can learn from the experiences of others and can adapt the conditions favourable to our State.

During the colonial time detailed statistical report of the country was written by Director General and an inventory was worked out. In India, Central Board of Forestry took the whole responsibility. The board was responsible for compilation of statistics. They had a central forestry commission with a separate statistical unit under the board. It was mandatory that all States send their report to this board. From 1984 onwards, Central Board of Forestry became inactive. The reasons are not known. It was urged at this point that the group should come out with proper recommendations and suggest remedial measures in order to overcome this problem immediately.

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Session 3: International data reporting requirements

Four presentations were made during this session. The key points presented by the speakers are given below:

i. Presentation by Dr. Steve E. Johnson on 'Joint Forest Sector Questionnaires – approach and concept'

He discussed about the history of development of JQ and explained the questionnaires JQ1, JQ2 and JQ3. He informed that the ITTO was planning to introduce JQ3 soon for world's paper products, their moving, wrapping and packaging requirements, articles made of wood, furniture and there will be separate category for non-wood products. Dr. Steve Johnson also stated that conversion packages can be used to have uniformity of product units.

ii. Presentation by Mr. Raman Nautiyal on 'Current status of Forestry Statistics in India and trends in their statistical reporting'

Mr. Raman pointed out the limitations in the data availability which included Non-availability of species-wise product prices and time gap in data availability. He made following suggestions to overcome these limitations:

- Local terminology is very important
- Sampling is the best answer
- Develop models to fill up the gaps.
- Nation-wise study is required rather than case-study/studies
- Adoption of advance technology for automatic transfer of data to the competent authority.
- The filler of the information must also be the user of the information.

iii. Presentation by Mr. Felice Padovani on 'Review of India's forestry statistics and issues relating to the adequacy of data provided by India'

Mr. Padovani talked about India's forestry statistics and issues relating to adequacy of data in India - source of data. He mentioned that target is to raise quality of data in India. In estimation, India is error-free. Most of the figures are more or less credible.

iv. Presentation by Mr. R. P. Mishra on 'Forestry Statistics regarding export – import scenario in India'

Mr. Mishra mentioned that export of forest products to USA has slowly decreased from 20.2% to 17%. At the same time, import before 2003 was initially low but gradually it is increasing. Paper & paper articles, wood & Wood articles and charcoal were the major items of import. However, in India, import figures are more than export figures.

After the presentations, discussion took place on the questions asked by participants or comments made which were largely related to adequacy of ITC (HS) Codes, the process of having a new 8 digit ITC (HS) Code. Discussion also took place on the main reasons for lack/ delay in data submission or data quality after 80's to FAO and also why GDP was under-estimated. Some observations/comments were also made by the participants which included:

- Data from India-quality and quantity both deteriorated since mid 80's. There is a need to examine why it had happened. Is it because of delay/low priority or whether it is a structural/institutional problem?
- The way data are collected about production on industrial wood by State Forest Department, there is a lot of inadequacy. Large amount of industrial wood production is not reflected on record. These information need to be captured.
- Besides, National Statistics Commission also agreed about underestimation. The agro-section, live stock sections – the information system is weaker. Non-timber forest product estimate are alarmingly poor. Information about product export is poorly recorded, though it is important.

Session 5: An overview of Forest Product Statistics – A view point of the industry

Three presentations were made during this session. First presentation was on 'Paper and Pulp industry' by Mr. R. C. Mall, Executive Director, Emami Paper Mill, Kolkata, second presentation on 'Plywood and Panel Industries, status, challenges and opportunities' by Shri Sajjan Bhajanka, President, Federation of Indian Plywood and Paper Industry and last presentation was on 'Lateral and vertical movement of forestry statistics using MIS' by Dr. Y.P.Gupta, Director, YG Consultants, New Delhi.

After the presentation, discussion took place about captive plantation, availability of raw, material for increasing productivity of paper and pulp industry and India adapting the China model with modification and work out appropriate strategy for plantation for generating raw material for plywood industry.

3. Working Groups and their findings

There were three working groups for which participants were divided into two/three groups. Summary of deliberations of the working groups, is given hereunder.

i. Working Group I: Trends in reporting of Forest Products Statistics

Three working Groups were formed each consisting of at least three States' representatives and the remaining participants from other States and organisations were randomly divided among the three groups. The three groups were given separate topics for discussion. The three working groups discussed the assigned topics in their group separately and prepared the presentations after detailed discussions in the group. After the presentation, there was a discussion on the findings of the three groups. The discussion is summarized below:

Group I: FP Statistics: Removals: Wood fuel and Industrial Roundwood

Broadly, several deficiencies exist and hence there is a:

- Need of skilled people with statistical background and also of orientation of staff. Recruitment of trained staff
- Uniformity of formats for local, State, central and international levels.
 Formats be designed keeping in view the capability of staff engaged for the purpose
- All data may not be available from Administrative Reports. Survey, therefore, may have to be conducted to get that information. Uniform structure should be followed
- Staff should be sensitive to gather information.
- Adequate provision of budget for doing so.

Group II: FP Statistics on production: Sawn wood, WBP, Pulp and Paper

- Standard formats in estimating and reporting forest products are used. There are lot of unrecorded issues which are not covered by standard formats.
- Main defect is information flow. There is a lack of trained manpower and infrastructure facilities for compiling information. Of course, in Maharashtra, Kerala and in some States/UTs these personnel are available at divisional and higher levels. In other States, it is lacking. Such trained staff can train lower level staff who are actually supported to do the job. Standard format and methodology need to be developed.
- In case of NTFPs, reliability of data is very poor.
- Lack of capacity both manpower and material.
- In some States, responsibility of data collection is entrusted to outside agency but they lack efficiency/less equipped.

Group III: FP Statistics on Trade .

- Issue is that Information Source of knowledge and power are related. Getting good statistics, good data should be gathered scientifically. There should have well organised structure and information system and evaluation & its approach. At present, there is no plan of clear cut approach which has been revealed by State presentations. Knowledge in respect of day to day crime, monitoring etc. is missing. MoEF should make a note of it and initiate action in this regard.
- Designing the system of gathering data, information system, monitoring and evaluation, training of the people and developing necessary institution need special attention.
- Working plan based on scientific information collection should be on continuous basis.

ii. Working Group II: Consolidation of Regional and National Forest Products data

The participants were divided into three groups and each group was asked to deliberate on their topic in the light of (1) data gaps and provision of missing data, and (2) the various aspects of JQ1 and JQ2. After detailed discussion, each group made a presentation which was discussed by all participants. Summaries of their presentations are given hereunder.

Group I: FP Statistics on Removals – Fuelwood and Industrial Roundwood

JQ1

Industrial Roundwood

Data on Production of industrial roundwood for which no permission is required is not available. There is huge volume. Also, standardization of definitions is needed.

Fuelwood

The problem in developing countries is more focused to removal of Bamboo and fuelwood. Removal of firewood from forest area is not being assessed. Same is true for Trees Outside Forests (TOF) as well.

Discrepancies:

- Different patterns of removals
- Consumption data is not available
- Unit value not recorded
- Measurement units differ from State to State
- Collecting / Integrating data from different sources

JQ2

Standardization of conversion of UNITS of measurements

Group II: FP Statistics on Production – Sawnwood, WBP, Pulp and Paper

JQ1

Sawnwood

- 1. Imperfect recording of saw mills in some States which needs correction/ improvement.
- 2. Improper Maintenance or non-maintenance of records of timber received or disposed/processed in the sawmill
- 3. Transit passes not/or partially used by traders.

Wood Based Panels

1. Control of forest department on wood based panel is largely non- existent. Hence, furnishing of data is becoming difficult.

Pulp and paper 1. R

Record of department supply is maintained but record of supply from outside department, which is also very substantial, is not largely available.

JQ 2

1. Very small quantity is imported. Hence, no record is provided to FD system which need to be evolved for correct information in-flow.

JQ 3/DOT 1 – NA

Notes:

- 1. Import and export need to be redefined in the light of International requirements especially transit rules.
- 2. Legal Procurement Certificate (LPC) should be introduced, where TOF is not taken.

Graphical study conclusion

- 1. In most of the States AAR, statistical reports are available.
- 2. ICFRE/ IASRI/ISI/CSO can be entrusted to examine old records and come out with solution for finding reason of gaps.

Few concluding remarks were:

In item code 1872/Sawnwood

- 1. The Sawnwood from 1985 to 1995 remained static, which reflects missing of some information.
- Similarly from 2002 onwards, the production showing sharp jump from 7500000 to 15000000 in 2005 – definitely the information has some disrupted fillings

In item code 1632 again from 2000 onwards, the production is showing sharp jump from 2000000 to 10000000 in 5 year period which need examination. Special study needed. Similarly, in item code 1633, Sawnwood also has the same trend.

Group III: FP Statistics on Trade

JQ2

- 1. HS Code for pulp is available; data on further classification such as mechanical, chemical of which sulphite bleached, nonsulphite bleached, etc. is not available as per the ITC (HS) Code.
- 2. Similarly, for other items, ITC (HS) Code is the primary key for database. Unless ITC (HS) Code addresses the classification, data are difficult to get.
- 3. There is heterogeneity in units of measurement. Appropriate conversion factors need to be created for bringing about uniformity.

JQ3

JQ3 may not pose any problem in furnishing data.

Bamboo and other raw material in paper products are not reflected. They should also find a place in the classification of secondary processed wood products.

- Using definitions: Definitions are quite adequate and practical.
- Using Excel: Easy to use.
- *Functionality:* System for communication at States/UTs is not available.
- Measurements: CUM/MT
- Collection/Integrating different data sources in the JQ (Production, Trade): Right step for data analysis and synthesis.

Data gaps and provision of missing data

• There is no provision for data gaps.

During discussion it came out that 80% of States are submitting data on JQ1 and JQ2. The remaining 20% of the States are submitting data with a gap of 1-2 years. Adding to 20% States complete information given by 80% States, JQ1 form is completed. Mr. Padovani further said that time table in a year needs to be worked out. Adding to this, it was said that detail legal dimensions are also to be looked into with emphasis on Transit permits in respect of forest produces.

Consensus was how the information can be gathered and for that a systematic uniform mechanism should be worked out for gathering information.

iii. Working Group III: National and Regional information needs and scope

Two groups were formed – one to discuss on National Information Requirement and the other on Regional Information Requirement.

Group I & II made the presentations on the topics assigned to them. There was intense discussion by the other participants on the presentations. A summary of discussions is described below:

Group I: National Information Requirement

- Data on Sawn wood, plywood, wooden panel etc. is not complete. In about 75-80% of units, data in organized sectors are not collected timely and reporting about those are therefore incomplete. Whatever data are received, are not authentic. Thus, it was suggested that MoEF in consultation with all stakeholders, define mechanism for the purpose, conduct studies and based on findings, suggest ways and means to overcome the situation.
- Non-uniformity in using of units of measurement by different States/ Organizations.

- Separate indicators for assessing national status of forest need to be incorporated for density, NTFP, bio-diversity, species variation, ecosystem, quality and quantity in non-forest areas etc.
- Issues related to improvement in forest products' statistic, strengthening of statistics cell in terms of manpower, infrastructure and networking on uniform pattern, training of personnel, adequate financial support to Statistics Cell in SFD and to all agencies (including NGOs) engaged for the purpose
- Efforts for simplification of formats for data collection in an uniform pattern (to be introduced by MoEF and SFD)
- Systematic plan to be devised to involve experts at all levels; all officer involved in this work be exposed through training. Due priority should be given to these activities through SFD. Information flow needs to be made systematic and in-time.

Group II: Regional Information Requirement

Group broadly divided regional State information needs in 2 categories:

a. Traditional Forestry System

- a. All the State's are collecting and compiling information (like timber etc.). New emerging needs like NTFP from forests, which were not collected earlier, need to be incorporated separately under forest information system.
- b. Online information system be worked out. New mechanism be found out for information gathering. For that, community centre network be formed (community being the most important beneficiaries) for collecting NTFPs.

b. Outside Traditional Forestry System

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- Identify new type of categories of information available like for agro-forestry fodder, industrial production and consumption etc.

4. **Recommendations**

Dr. Bipin Behari made a presentation of the key recommendations based on the group work discussions and asked the participants and the panellists to consider the recommendation and see if any changes were needed. Some modifications in the recommendations were suggested by the participants and panellists. Some points were raised on which a detailed discussion took place and recommendations were finalized with the active participation of all participants given hereunder:

- 1. Existing Information systems should be reviewed for the development of effective MIS. The Information Need Analysis (INA) should be carried out for data on State/Region/National and International level.
- 2. States /UTs must provide data in complete form and in time.
- 3. The various institutions, wood based industries and their Associations and available limited validated data sources may be utilized towards the development of forestry database management system.

- 4. States/UTs must be strengthened with necessary hardware and software to facilitate promptly data collection and dissemination.
- 5. A mechanism need to be developed for the assessment of production of the forestry sector from non-forest areas.
- 6. The responsibility of review, planning and education should be taken up by the Ministry of Environment & Forests and adequate steps to ensure data availability with high quality and integrity.
- 7. Directorate of Forest Economics and Statistics needs to be created under the Ministry of Environment & Forests for forestry data networking as the outcome of National Forestry Database Management System (NFDMS) scheme.
- 8. ITTO may provide financial assistance for phase-II project to ICFRE for further strengthening of data networking in the Country. This may include financial support to the States also towards achieving the target.
- 9. FAO, ITTO and other international donor agencies may provide financial support for necessary outlook studies through Ministry of Environment & Forests.
- 10. The allocation of funds to the forestry sector specifically for strengthening of forestry statistics in the States/UTs must be enhanced.
- 11. The necessary capacity building must be provided to develop the expertise at all levels.
- 12. The States/UTs must provide a copy of Annual Administrative Report annually to ICFRE and the Ministry.
- 13. The Directorate General of Commercial Intelligence & Statistics, Kolkata may provide necessary support to ICFRE with the export and import data on forestry items specified under Chapter 22 and 44 of ITC (HS) classifications at the earliest.
- 14. Statistical Cells must be created in each State/UT and must be adequately strengthened on regular basis.
- 15. Need to conduct studies on removals of fuelwood, fodder etc. from forests and other areas in order to supplement the forestry database.
- 16. Need to have proper dissemination mechanism at the State level so that whatever data is being generated, it can be disseminated properly and used effectively.
- 17. Specific surveys need to be carried out on estimation of consumption of forest products by industries (e.g. paper, pulp etc.) and for unorganised sector, which is not covered under the nationalized surveys.

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1. Background

Forestry in developing countries, including India, is increasingly being seen as a means for eradicating rural poverty and achieving sustainable development. Recognizing the importance of forests in environmental stability, restoration of ecological balance and most importantly in income generation, MoEF is initiating in consultation with the Indian Council of forestry Research & Education (ICFRE) a proper system for maintenance of forestry statistics to assist planners and policy makers. Moreover, India is also a signatory to International Tropical Timber Agreement (ITTA) wherein various demand and supply, production and consumption data regarding timber and fuelwood etc. are required on an annual basis on the prescribed Joint Forest Sector Questionnaire (JQ1 and JQ2 forms). Thus, in this context, maintenance of proper statistics and records are inevitable for the management of forests as a renewable resource which requires comprehensive information for proper management. The present level of statistical reporting in the forestry sector is far from satisfactory.

Annual Administrative Reports, prepared at the Division level, are the basic part of the reporting system in forest administration. The basic data originates at the Range level in a set of forms standardized for the whole State. These data are eventually used for Administrative Reports/Annual Reports and performance budgets. The above channels of reporting need to be continuously improved, updated and reinforced as integral parts of the forest statistical system. Apart from the information on administrative part, sectoral information proves crucial for helping plan/policy related deliberations. Lack of such information has proved crucial in forestry sector planning. For example, production, consumption, trade and movement of wood and non-wood forest produce outside the Government owned forest estate contribute substantially to the National economy. The role of wood is amongst the most prominent natural resources in infrastructure, governance, trade and rural as well as urban economy. Paper also forms a very important component, most of which is manufactured from forest derived material. Otherwise too, statistics on paper production are required to compare the position of raw material derived from forests vis-à-vis from other sources. Statistics on pulp are also required with segregation into chemical, mechanical; bleached and unbleached; type of chemical used, etc. compilation of such information for forest administration is vital along with forest estate management. Establishing linkages with other all India data such as National Census, National Sample Surveys (NSS) and National Export and Import databases, etc. are also essential to strengthen the socio-economic dimensions of forest statistics.

Besides fulfilling the International commitments, the collection, compilation, validation and dissemination of forestry statistics is also urgently required for fulfilling the National commitments to policy and planning etc. It makes it highly essential that the entire forest statistical system needs to be carefully reviewed, researched and reporting capacity reinforced in an appropriate manner. Only this way, the contribution of forests to social, economic and ecological well-being of the Nation can be recognized with the

development support to the sector thereby maintaining the health of the forests in an optimum condition.

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2. Inauguration

The inaugural session started with presentation of bouquets of flowers to Thiru Sevugan Regupathy, Hon'ble Minister of State, Forests and Wildlife, Ministry of Environment and Forests, Government of India, Mr. G.K. Prasad, Additional Director General, MoEF, Dr. Steve E. Johnson from ITTO, Mr. Felice Padovani from Food and Agriculture Organisation (FAO), Ms. Frances Marie Maplesden from ITTO, Dr. S.P. Sharma, Statistical Advisor, MoEF and Dr. Bipin Behari, DIG (SU), MoEF. This was followed by lighting of the ceremonial lamp by all the dignitaries.



Dr. Bipin Behari welcomed the participants and presented the activities of ITTO in India and background of the current workshop. After that, Shri G.K. Prasad, Additional DG in the Ministry of Environment & Forests, addressed the gathering. He also extended a warm welcome to all the participants of the international workshop on Forest Products Statistics. He mentioned that since inception, the forest departments of India have painstakingly ingrained the reporting mechanism in the work-culture of the forestry sector. The reporting systems have also evolved with time and the changing definitions and roles of the forests from a resource for consumption, to protection and have now lead towards sustainable management and conservation. The system was quick to adapt to the shifts the sector witnessed in the last one hundred years. However, the system stands apart due to the fact that it caters to a different kind of a sector vis-à-vis the world knows. Considering the diversity of forests, the diversity of uses to which forest products are put to and the variation in forest types and the forest products, the reporting systems have not been able to keep pace with the dynamism of the sector.

Internationally, the concepts may be simple to understand and relatively easy to apply. However, from the Indian point of view, where forests have a major role to play in the rural and subsistence economy, the same concepts are hard to apply. Then there are the forest dwellers that depend upon the forest for their survival and well being, right from food and medicines to shelter. Considering this diversity, one wonders whether there is any reporting system perfect enough to capture and reflect the figures, which remain elusive in nature and are so difficult to comprehend.



Mr. Prasad appreciated the commendable job being done by The Indian Council of Forestry Research and Education and the Survey & Utilisation (SU) Division in the Ministry of Environment & Forests, Govt. of India, in collecting, processing and disseminating these statistics, although not in a very time bound manner as the collection of data in itself is a Herculean task requiring monitoring and adequate checks and balances to ensure that the estimates are valid and have high integrity. He congratulated Dr. Bipin Behari and his team of SU Division of MoEF to take lead in the development of such systems and also in synergizing the efforts of ITTO in providing reliable information in respect of the forestry sector, not only of India but also of the world over. He felt confident that the deliberations of the workshop will provide a strong and sound platform for laying the foundation of expert systems that can deliver the goods with adequate precision and accuracy within the time limit desired so that the information is used without delay in finding solutions to problems that confront the survival of mankind today. Following Mr. Prasad, Dr. Steve E. Johnson detailed out the importance of the statistical information about forest produces. He gave emphasis on Indian situations and urged about reliable comprehensive statistics regarding Indian Forest Products needed in the country as well as international situation. He also stressed about networking within the country and with the international situations in respect of Forest Product information. This has become more necessary because of the change in situation and environment & due to bio-diversity. In continuation, Mr. Felice Padovani stressed that there is a need of standardized methodology for Forestry related data in whole of Asia Pacific Region with particular emphasis to India. Following this, the inaugural address was given by Thiru Sevugan Regupathy, Hon'ble Minister of State, Forests and Wildlife, Ministry of Environment & Forests, Government of India.



The Hon'ble Minister emphasized about the importance of data based information in respect of Forest Products in the country. He traced the historical perspective of forests and their importance in our life and culture. He highlighted the Indian scientists contributed in the development of Statistics as a science, especially those of Prof. P.C. Mahalanobis, Prof. C.R. Rao, Prof. P.V. Sukhatme, and other stalwarts in the field. He noted that the forestry sector has a long tradition of statistical reporting since the time of its inception in late eighteen hundreds. Meticulously laid out permanent sample plots, details of logging, forest produce and other parameters were systematically collected and are still being done today. With the advancement of technology, the reporting has now become more meticulous and expertise and technology dependent. The Honourable Minister was very happy that this workshop is being organized at a time when the forestry sector is about to witness a renaissance in technological adaptations in its working, whether it is the government owned State forest departments or private forest based industries or forestry research organizations.

The Honourable Minister further observed that the relationship between India and ITTO will surely help in realizing the kind of output desired for India. The active participation of India in ITTO meetings is an indication of the bond envisaged with the organization. "I thank ITTO for conducting this workshop here and I am confident that the participants will go back with the knowledge to guide and implement the statistical systems to the tune with the international forestry statistical systems. The presence of delegates from public and private organizations conveys our belief in public-private partnership in all the matters of national importance". In the end, he congratulated Shri. G.K. Prasad, Additional DG and especially Dr. Bipin Behari, DIG for taking initiative in organizing the workshop in India. He also welcomed the experts drawn from various organizations who were eager to share their wisdom on the subject. With these words, the Honourable Minister declared the workshop open and wished a grand success for the same.

All the guests were then presented the memento by the organizer of the workshop.

The inaugural session ended with vote of thanks by Dr. S.P. Sharma, Statistical Advisor. He thanked all the participants and international guests who could make themselves available in the 4 days' workshop.

3. **Presentations and Discussions**

3.1 Session 1: Strengthening of collection of Forest Products Statistics – Roles and Responsibilities of States/UTs Governments

Chairperson: Shri G.K. Prasad, Additional DG (FC), MoEF

Co-chairperson: Shri Steve E. Johnson, ITTO

The business session started with the presentation by nine State Representatives from Andhra Pradesh, Assam, Gujarat, Madhya Pradesh, Kerala, Maharashtra, West Bengal, Haryana and Karnataka. All the five regions of India were thus duly represented. The salient points of presentations are discussed hereunder:



1. Andhra Pradesh (Shri A.K. Srivastava)

Mr. Srivastava started the presentation with the structure of Andhra Pradesh (AP) forest department. He told that AP forest department has 4 Divisions and 12 Research Stations. He informed that statistical officers collect information and compile them into reports. He also pointed out that the process followed in data collection is questionable from the point of view of relevancy of data.

He told that all working plans are approved and in operation except one which is under active process of approval and will be in operation soon. He also told that many of the paper / pulp industries are getting their supply from Andhra Pradesh and 50% of Bamboo are provided in splits.

2. Assam (Shri O.P. Pandey)

Following Andhra Pradesh, presentation was made by Shri O.P. Pandey for the State of Assam. During presentation, he pointed out several difficulties in gathering relevant data such as:

- Frequent transfers/ posting of officers which results in lack of knowledge of subject matter.
- Limited man-power
- Lack of adequate funds
- Long processing chain from field officers to PCCF office in transferring of
 - information leads to delay in reporting and validation of data.

He expressed that the State is facing a lot of difficulties in quantifying the forest produces which are grown in small quantity. Bio-diversity in Assam is also an important factor but there is no mechanism for collection of data. Similarly, in Assam, varieties of medicinal plants are grown but no proper information is collected about their production. He urged that there is a great need to work out a system for valuation of forest produces in Assam. At the same time, there is need for adequate trained manpower for data collection in such areas. Forest officers need orientation in this field though they are less keen in getting such training, in order to compile all these information. There is also need for technical and financial support to the State Government without which the State will not be in a position to carry out such activities optimally and systematically.

Assam publishes statistical handbook annually.

3. Gujarat (Shri S.C. Pant)

Shri S.C. Pant made a presentation of the status of Gujarat State. To begin with, Mr. Pant presented the geographical background of the State. The eastern part which is primarily a forest area is inhibited by tribals. About 9.8% of the total area of Gujarat is covered with forest and 8.6% is under wildlife. Gujarat State is famous for bio-diversity situation and not for forest. However, in the State, the tribal area has not decreased from forest cover. Through presentation of charts and graphs, he mentioned some key areas which are, according to him, the areas where there is scope for improvement in future. In the year 1960-61 when Gujarat State was created State Government followed participatory approach in gathering information regarding forest produces. Since 1996, they have continuously worked on improvement of nurseries. In the year 2005, State Government also started eco-tourism which is definite reflection of the scenario with the changing time. The State Government carries out training programme from time to time not only for the staff but also for the people with the focus on bio-diversity scenario of the area and also provide nature related education and PRA exercises to the people and school going children.

The State is conscious about relevance of statistical information in respect of forest produces. However, he raised a question about how to collect relevant statistical information and reliable data on these aspects which is very important for planning and monitoring activities. The statistical data according to him, was also needed for verifications, replication and comparison between past and present situations and for total management. For this, they are in need of qualified and experienced statistical officers who are well versed about such data and related activities.

Like Andhra and Assam, Gujarat is also facing problems of frequent transfers, availability of adequate manpower, non-availability of required funds etc. Unfortunately, according to him, they generally get such officers who come on deputation in the department almost at the fag end of their career not to contribute for the cause but to retire from the department.

Time series information was very useful and he emphasized that in Gujarat they are gathering such information. However, sometimes they get delayed in compiling because of other priorities. Therefore, they require additional manpower for storing and analysis of data and compiling different types of forest related information and information about forest produces. However, every year Gujarat publishes Forest Statistical Report. The last edition was for the year 2005 and edition for year 2006 is under process of publication.

There are different types of NGOs also working for forest related schemes and projects. Such data also are needed to be gathered. In the absence of separate infrastructure for compilation of all those information, it is a difficult task to carry out such activities. Separate staffs are needed and vacant posts need to be filled without loosing time.

It was also mentioned that long processing channels of information from Range to Division, Division to Circle, Circle to Wing and finally to the concerned person lead to unnecessary delay in the collecting, validating, up-grading and verification of information. In the end, he said data collection requires lot of time because of the existing variety of data concerning plantation, farm forestry etc.

4. Madhya Pradesh (Shri M.S. Rana)

Shri M.S. Rana presented the status report of Madhya Pradesh (MP). He emphasized three parts of the report. One is annual administrative report and the second - annual statistical report. Both are compiled by departmental personnel. However, he gave the stress to the third part 'management by objectives' aspects of the data relating to

forest produces. He said MP Government used to have good standard data upto 1974 but after that the quality of maintaining some data has become questionable.

In MP, 14 wings are running under forest department. Due to changes in technology, advancement of communication and high working conditions, MP has created a Separate 'IT' Wing. State has forced the adoption of TP system in India like in Europe and other Countries.

The speaker emphasized that the third-aspect i.e. 'management by objectives' for data gathering needs to be well defined in terms of what is to be managed, who should manage, how to collect those information and how to utilize those data at the State level. For that, they require efficient and adequate manpower as well as orientation of manpower at the lower level. These are at present lacking at the State level. They have basic infrastructural facilities but their advancement is required.

5. Kerala (Shri J.K. Tiwari)

The next presentation was made by Shri J.K. Tiwari for the State of Kerala. In his presentation, he mentioned not only forestry data but also literacy rate and education status of Kerala which is quite high. Like MP, they have also created an IT Wing in their forest department. Kerala has submitted its Administrative report for the year 2005-06.

Shri Tiwari felt that regarding the tropical issue, lot of emphasis is needed for data collection in Kerala. He also felt very strongly that there is a necessity for proper streamlining of utilization of data being gathered. He suggested that format for reporting of data needs modification and to be focused. He felt that Govt. should take initiative for regular computerization of different types of information relating to forest produces and for that Govt. should procure trained manpower to gather relevant information. Some of other key points mentioned by him were:

- Kerala is very particular about up-grading their websites to show transparency.
- Kerala has submitted its Administrative report for the year 2005-06.
- In Kerala, data are divided into two parts: Administrative data and scientific data.
- He emphasised that the standards of data collection should be developed on all India level having a standard pattern to facilitate the integration and comparison of data / information.

6. Maharashtra (Shri Jarnail Singh)

After lunch, presentation was done by the representative of the State of Maharashtra, Shri Jarnail Singh. Mr. Singh said that they have more than 17,000 manpower in their working area. They have 48 Divisions, out of which 34 Divisions have

operating working plans. He shared that in the State, they have statistical assistant at different levels and also the computer facility but only 47 staff out of 79 are in position.

They do compilation of data at State level. They require technical staff for information collection, training of staff and proper methodology for collecting of information. He also suggested that for carrying out these activities smoothly and systematically, Government of India (GOI) should extend financial and technological support for the State in future.

7. West Bengal (Shri S. Roy)

West Bengal report was presented by Mr. S. Roy. He shared that proper data and information are needed for planning, monitoring and evaluation at different levels. He emphasized more on primary raw data then on secondary sources of information. It is a problem as State connectivity is a major problem with the field officers. There is a lack of standardized proforma to collect information about forest produces and there is a need for training for those who are engaged in such activities. He suggested that attempt should be made for development of in-house software packages for planning, monitoring and evaluation. He also mentioned that they have in-house developed FM Software which is used for consolidating the accounts, maintaining and submission of monthly accounts etc.

In West Bengal, they possess data in respect of forest produce district wise. Forest report gives variety of information from all possible angles in the State. In the State, GIS classified maps are available and they primarily collect secondary data from census, economic survey report etc.

He shared that in the State status of statistical cell is not optimal. Lot of sanctioned posts are lying vacant. He suggested that these posts should be filled as early as possible. He said that there should be development of road map on e-governance, increase the use of websites for information and also develop customized intra-net applications.

8. Haryana (Shri R.K. Sapra)

Mr. R.K. Sapra presented the report on Haryana State. He said in Haryana, 44.2 lakh hectares geographical area is covered under forest. They collect the data regarding forest produce etc., through their own staff or persons on deputation from different statistical departments rather than recruiting new staff who are not sensitized on this subject. Information gathered was on planning, monitoring and evaluation. At this point, he deviated a little bit and shared about the utilization of wood for varieties of industries at Yamuna Nagar i.e. highlighted the role of wood based industries in this context.

9. IPRITI (Shri C.N. Pandey)

Last presentation was done by Shri C.N. Pandey, IPRITI, Bengaluru, an autonomous body under Ministry of Environment & Forests.

He talked about varieties of use of wood in industrial sector. He mentioned that the level of consumption of solid wood required by both composite panel industries and mechanical industries is not available. He further said that in coming years, there is a possibility of declining trend of use of wood for different reasons; one of the important reasons is availability of good substitute of wood i.e. bamboo. He further mentioned that there is a need of linkages between forest produces and the industries. There is also a need for reliable and right information/data. At present, data available are not highly reliable. Consistency of the data is also a questionable issue.

Session 2: Trends in reporting of Forest Products Statistics

Chairman: Dr. K.D. Singh, Ex-FAO Expert Co-chairman: Shri H.V. Bathla, Head, Sample Survey, IASRI, New Delhi

1. Presentation by F. Padovani, FAO on 'The basic role and responsibilities of a Forestry Statistical Office'

The session 2 started with a presentation of Shri Padovani. He gave a very detailed presentation and the trends in reporting forest products statistics. He emphasised that first and foremost task is to provide statistics to improve information system.



He started with objectives of a forestry statistical office and described organisation of the statistical information cycle, which is the key component of a forestry statistical office. Other key points mentioned by him are summarized below:

• Information should be gathered regularly because people, scientists wait for trusted information. It involves cost as data to be collected through trained people – who are to be paid. However, there are problems to carry out such activities. As not all people are equally sensible in gathering useful information, this creates problem.

- The main objective of a forestry statistical office is to provide statistics that improve the effectiveness of decision – making. This can be achieved by (a) collecting data of the highest quality and of the most use; (b) collecting data in a timely and cost-effective manner; (c) providing the most appropriate and accessible data products; (d) teaching the benefits and methods of using statistical information to potential data users to create more effective decision-makers.
- Data should be collected in a very clear and sensible manner. Steps need to be followed systematically. Hence, MIS is important to be followed since users of data are of different types for different purposes.
- Feedback is also needed which create understanding, knowledge and information system better. Feedback data allows for better planning.
- With experience, one can have understanding of better feedback and apply it for planning for future. It is a cycle in continuous manner.
- Sometime surveys are also carried out for having high quality of data. Whatever are produced there is a demand. Hence, quality should be focused. Thus, there is a need for information, and dissemination of information, which must be in regular and sensible way. FAO is concerned with these and maintain the system to gather information as sensibly and regularly as possible.
- He further mentioned that produce statistics, analytical part, graph etc. cater different types of demand of people involved in the specific area/activities; then publications are to be followed for dissemination. Data management is also essential and it should be known to people about the various forest produces and their utility. For proper information, there is a need for documentation and suitable policy.
- Data should be also accessible, analysed and disseminated regularly. State wise data are to be gathered and India can do it easily.

2. Presentation by Dr. Bipin Behari, DIG (SU), MoEF on 'National Forestry Database and Policy Decision'

The summary of key points of the presentation of Dr. Bipin Behari are given hereunder.

• Data sometimes are available and sometimes not for pondering upon and to workout policy keeping in view the issues. And then, ad-hoc arrangement are made for gathering data, evaluate in order to work out policy decisions and so on.



- There is some limitation in data collection mechanism and for that there is a need to work out means and procedures properly.
- National Forestry Policy '88 indicated about non-availability of forest resources information. It is a matter of concern. To gather such information, survey is to be carried out. Periodical collection, collation and publication of reliable data on relevant aspects on forest management need to be improved. Policy itself indicates how one is to proceed to overcome the issue of data gaps.
- FAO and ITTO play a major role in dissemination of forestry statistics. They publish regular volumes of journals on Forestry Statistics
- In India, several organisations are publishing forestry data/information but Ministry has given the mandate to ICFRE, which had published 'Forest Statistics India 2003' (FSI, 2003) whereas 'Forest Statistics India 2005' is to be published soon. FSI, 2003 records show about 50% data are not available. Continued efforts and follow-up done by the Ministry improved the situation and now around 25% to 30% of data are not available. Reasons are many. Some State Governments are not providing data or if given they provide incomplete data.
- There are various levels for data flow in India before it gets compiled at central level. Varieties of data concerning forestry, wild life, wood based industries, import-export etc. are gathered.
- Share of the forestry sector in GDP is estimated at below 1.0% approximately. The percentage of estimates based on direct data is estimated to be 28%. The percentage share of forestry and logging sector in total GDP in 1980 81 was estimated to be 2.5 per cent which fell to 1.9 per cent in 1985 86.

- For deciding the tariff of the items for any Preferential Trade Agreement (PTA) and Free Trade Agreement (FTA), it is essential to know the quantum of trade and the total amount involved with the concerned country or the trading block.
- For deciding the items to be kept in the negative list, it is also essential to know the production, consumption, conservation etc. details about the forestry items.
- Lack of such information causes a great difficulty in taking right decision.
- Problem lies with data collection: Practice of preparing 'Administrative Report' is in existence. Some States are having very good system. Some States are not maintaining the system and not preparing the Annual Administrative Report which is very important as it deals with the issues like production, consumption, utilisation etc.
- State wise data collection is not uniform in terms of reporting unit of measurement. Several reasons are responsible for that. There is no National Forestry Database Network at present in the country and State Govt. is looking to Central Govt. for its solution.
- As a result, contribution of forestry sector to GDP remains unanswered, underestimated because of lack of complete data. Until raw reliable data are available regarding contribution of forestry to GDP, the issue cannot be handled properly and the matter will remain as a hazy zone which will affect the allocation of funds to this sector suitably. Criteria and indicators for sustainable forest management have been worked out by Govt and local communities.
- Plantation records, agro forestry etc., data are not available properly.
- Lack of data leads to underestimation.
- Indian Paper Industry is amongst top 15 global suppliers with 600 mills. Demand for paper in India is growing at the rate of 7 to 8% compared to 2 to 2.5% in developed countries.
- Dr. Bipin Behari also indicated about the amount of raw materials needed for the paper industry. However, he claimed that all those figures were collected by him with lots of efforts/persuasion with State Governments, private sectors etc. But he expressed very strongly that these are still incomplete information.
- He commented that the State governments are more concerned how much licenses be given against the quantum of forest produces but least sensitive to the fact that complete reliable valid data relating to forest produces are not available with them. He emphasised that validated data are needed. In its absence proper consistent decisions cannot be taken.

- It is also needed to obtain information about species which should be noted in -ve list (conservation part). For that, detail information about production, consumption etc. are needed.
- He talked about export/import policy of wood, bamboo etc. and indicated vividly export of which item (s) are banned totally, partially and about items which are not banned. He also explained about the export-import scenario in the country in this context.
- Points were raised regarding development of National Forestry Data and Management System,-format etc. He urged that in all States statistical cell should be established. Ultimate aim is that all States should have uniform system of data collection and development of IT.

Discussion

In between and after session 1 and session 2, participants raised various issues and made few comments which are discussed hereunder.

Q. What are the maps and scale available in the field?

Maps are generated including how the layers have been generated. Nearly 33 layers have been generated which have been given to the field level. Previously, the scale was between 1:50,000 but now they are transferring it to 1:25,000.

Maps are putting all plantations, building, roads, tribal settlement etc.

Q. What is the average amount of money allocated in a State plan and what is the actual allocation for the forestry based programme. Of that what is the percentage actually for the programmes (remove all the money spent on infrastructure).

Assam got meagre allocation of 60 lakh (0.8% of the State plan) whereas Gujarat got 2.6 crore (1.29% of the State plan), Kerala got Rs. 40 crore i.e. less than 1% of the State budget. For rest of the States, data was not available at that time but it was less than 1% in every State.

The Major problem was receipt of funds in time. Addl. DG mentioned that grant released to States does not reach to forest departments in time. Though the GoI releases the instalment of allocation but it is not notified to forest department. On an average the delay period is of 5-6 months between the releases from the State Govt. to State Forest Department. This is one of the critical factors which MoEF have been trying to take up with all the States.

The small amount along with the huge time gap widens the problem of finance in different States.

Q. How / who enforces the law & order if someone is illegally obtaining the forest goods? Is it the responsibility of the army or upto the forestry authorities themselves?

Assam representative answered that though government maintains law and order but insurgency is a major problem due to which forest officials find it difficult to visit the forest areas. He also said that in the forest area, forest personnel enforce the law.

Here, he gave the example of 13 innocent people who were just simply condemned to death. The impact of it was very severe on the people.

Q. How to improve the facility?

There is a need for recruitment of software engineer and programme. Initial option is outsourcing. If it does not work, have in-house facility. Other views were on following Integrated approach and utilization of available own resources (MIS and GIS module) and not waiting for recruitment. Kerala prefers to train own people rather than recruitment of fresher or outsourcing.

Outsourcing: whether outsourcing should be adopted or not?

Maharashtra representative, Shri Jarnail Singh replied that they are making provisions for outsourcing the work but at present, everything is in initial stage. They are working more manually than electronic. Moreover, he said that outsourcing increased dependency on outsiders. Though, he agreed to outsource day-to-day activities but outsourcing is not successful in long term.

Some States mentioned their bitter experiences in outsourcing like Karnataka. They forced on engaging competent and trained manpower / staff for testing and development of software to data filling and modifications. According to them, outsourcing is not suitable to their requirements.

At last, Mr. Steve E. Johnson from ITTO suggested that something can be outsourced but not everything. The key is to have trained and technical persons at administrative and infrastructural level. But different States have different requirements and we can learn from the experiences of others and can adapt the conditions favourable to our State.

Q. How do we arrange flow of information?

Share the responsibility for submission of information which has to come outside forestry sector. A comment was made by Mr. Steve E. Johnson that 'We should learn from other States like Kerala'.

Q. Whether projected growth of plywood was Production or Consumption?

A participant said when 430 Plywood industries were set up in Yamuna Nagar, in Haryana, U.P. and other surrounding States, lot of poplar trees were grown. Farmers were

getting good remuneration for growing poplar. Now they are getting 3/4th compared to earlier, because 430 plywood industries are dictating farmers that 'if you want to give poplar at this rate give or else don't give'. Cost for growing a poplar tree (good variety) is upto Rs. 40/-. Under the situation, are we not cheating the farmers? Farmers are cheated by the industry now.

Further, cheating is going on in market regularly. Regarding rate, market dictates it. Industry pays Rs. 100-150/- per quintal. Now they are paying less. There is no shortage of raw material. Rather over-production is there. It is an economic phenomenon. Even in IT industries in USA this is happening. It is happening in every sector. It is not a question of cheating. Such cheating – if said – is present in market. You cannot decide the rate, market decides. However, Haryana Govt. is working on it. Once we know the availability of raw material in the State, this problem will be minimised. Moreover, private wood based industries are more. They dictate to the farmers.

Q. What is the mechanism for collecting the reliable forestry information of raw material for industries? Which developed/developing country is good/best for data collection?

Mr. Felice Padovani told that India is one of the best countries to provide data in world situation. Fore more than 12 years, we are seeing India's statistics. Also, Thailand, Pakistan, Philippians, Indonesia are good. It is difficult to say at present which one is best.

Between public and private sectors, the speaker stated that private sectors are good in comparison to public sector.

A comment was made that mechanism need to be developed to work out inventory.

Kerala Forest Research Institute (KFRI) has done this. There are statistical means. Statistician can tell better how to work out inventory and add information to that about availability of raw-materials from non-forest areas of private/public/agro sectors.

Q. How to augment flow of information?

This needs to be thought of because after 2003 hardly any State data is available. One can develop sophisticated software etc. but basic issue is how to ensure the information flow and how this necessity can be met. It was felt that one way is the traditional forestry statistical information on non-forest products and the second way is to gather information / data on farm forestry, farm wood – which are available outside forest such as Forest Corporation and State Forest Department/projects etc. Thus, we need to decide whether data are to be gathered from one level or from the second alternative source (s) who are likely to possess those information or from both.

It was also stated that in international sphere, they share the task and information regularly. Each one takes his task to streamline the affinity as much as possible and notification of information becomes a regular affair. However, with such sharing there is a possibility of unnecessary energy loss, expenditure and repetition of data that needs to be generated. Mr. Padovani also emphasised about importance of flow of information and its cycle i.e. how frequently data should be gathered.

Another comment was made by the participants. They said they felt strongly that something happened after 1980 which resulted into this information gap.

During the colonial time detailed statistical report of the country was written by Director General and an inventory was worked out. In India Central Board of Forestry took the whole responsibility. The board was responsible for compilation of statistics. They had a central forestry commission with a separate statistical unit under the board. It was mandatory that all States send their report to this board. From 1984 onwards, Central Board of Forestry became inactive. The reasons are not known. It was urged at this point that the group should come out with proper recommendations and suggest remedial measures in order to overcome this problem immediately.

Session 3: International data reporting requirements

Chairperson: Mr. Felice Padovani, FAO Co-chairperson: Ms. Frances Marie Maplesden, ITTO

1. Presentation by Dr. Steve E. Johnson on 'Joint Forest Sector Questionnaires – approach and concept'

- The presentation was about how ITTO is handling or dealing with the statistical data system.
- Presentation clearly told about its objectives, from where they get data (sources like on-going projects, marketing information surveys, data from FAO etc.); why they need to develop these questionnaires, flow of information, primary sources for JQ1 and JQ2 etc.
- He discussed about the history of development of JQ i.e. in 1989-90 there was a 1st version of ITTO questionnaire, in 1990-97 there was a 2nd version of ITTO questionnaire. The system of statistical correspondence was started and in 1997-98 there was a 3rd version of ITTO questionnaire. In 1999, ITTO presented JFSQ (Joint Forest Sector Questionnaire JQ).



- He categorized the questionnaires and explained that JQ1 mainly deals on production and removal whereas JQ2 deals with wrapping, packaging, furniture etc., and JQ3 is regarding trade.
- He informed that they were planning to introduce JQ3 soon for world's paper products, their moving, wrapping and packaging requirements, articles made of wood, furniture and there will be separate category for non-wood products.
- He also mentioned about the responses through questionnaire which are more or less correct. He added that quality of data was improving but there was still scope for betterment.
- He told that rather than developing old questionnaires, try to develop new one. He also stated that there should be change in trend.
- He further stated that conversion packages can be used to have uniformity of product units.

2. Presentation by Mr. Raman Nautiyal on 'Current status of Forestry Statistics in India and trends in their statistical reporting'

The key features of presentation of Mr. Raman Nautiyal have been summarized below:

- Structure is common.
- Administrative report
 - Prior 1984 Statistical commission
 - After 1984 MoEF through publication
- During 2002, ICFRE started building networks of institutions.

- Each institute is mandated with some States and that institute takes care of data requirements of that State.
- Limitations:-
 - Non-availability of species wise product prices.
 - Time gap in data availability
- He mentioned the achievements of the ICFRE and the workshops.



Suggestions:

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- Local terminology is very important
- Sampling is the best answer
- Develop models to fill up the gaps.
- Nation-wide study is required rather than case-study/studies
- Adoption of advance technology for automatic transfer of data to the competent authority.
- The filler of the information must also be the user of the information.
- Milestones to achieve:
 - To develop a set of formats which are simple to apply.
 - Create assets and human capacity to collect information to reduce time-gap.

3. Presentation by Mr. Felice Padovani on 'Review of India's forestry statistics and issues relating to the adequacy of data provided by India'

Mr. Padovani raised a question about how and what data do we get? The key points from his presentation are summarized below:

- Talked about India's forestry statistics and issues relating to adequacy of data in India - source of data
- Comparison of FAO and ITTO Data
- He mentioned that target is to raise quality of data in India. In estimation, India is error-free. Most of the figures are more or less credible.
- 4. Presentation by Mr. R. P. Mishra (Director, Directorate General of Commercial Intelligence and Statistics, Kolkata) on 'Forestry Statistics regarding export – import scenario in India'
 - Providing commercial information to traders, buyers and other agencies.
 - Exporting mechanism of forest products to USA is decreasing percentage wise slowly from 20.2% to 17%
 - Export of forest products is going up; in import, before 2003 it was initially low but gradually it is increasing.



- More than 140% in export has increased in last 6 years.
- Paper & paper articles, wood & Wood articles and charcoal are the major items of import.
- In India, import figures are more than export figures.
- USA is our major partner of export of forestry products.
Mr. Padovani mentioned that this presentation is showing India from trade point of view which will be very beneficial in future.

Discussion

Q: Do you think these ITC (HS) Codes are adequate and what is the process of having a new 8 digit ITC (HS) Code.

Mr. Mishra replied that these codes are given or issued by CBEC. So if you want to have a new code, you need to take up with CBEC, who before issuing the code, going to see the export and import scenario of that particular product.

Dr. Bipin Behari informed that Ministry of Environment & Forests raised this issue in the DG, DRI's meeting and they have accepted to take up the new list of codes which Ministry will formulate.

Moreover, it was suggested that a new list of different specific species which will take the place of 'Others' in ITC (HS) codes will be decided in the next meeting of Applied Rate Core Group.

Dr. Bipin Behari appreciated the work of Mr. R.P. Mishra and suggested him to send CDs for forestry items (export & import data) to ICFRE as he is sending to the Ministry.

Other observations

- Someone suggested that we are here for developing an information system which smooth the flow of information. Therefore, at this stage, rather than concentrating more on JQ1 and JQ2, we should concentrate on that, which will automatically helps in filling these questionnaires also.
- Working plan is the basic event, so there should be input from ITTO, FAO and GoI to strengthen the working plan.
- Officials should be given some sort of researches / studies to understand the different management in working area like energy etc.
- There is need to evolve a system for calculating legal removal and illegal removal or we can say that there should be separate head in working plan for legal removal which is un-recorded and illegal removal.

Q. What are the main reason for lack/ delay in data submission or data quality after 80's to FAO. Or why GDP is under-estimated.

Data that we are getting lacks in several ways. These data come from SFDs where large amount of information of wood products (unauthorized removal) may not be recorded.

Low contribution of forestry sector to GDP doesn't mean that forestry sector is not performing. There are some of the items which are not directly measured. These items may be contributing in the other sectors of the economy. Thus, their share is not countable.

NTFPs estimation including medicinal plants are highly under-estimated and inconsistent.

Q. What are validated data source for arriving at such figures in FAO?

Padovani replied that we have a systematic cycle for data collection as shown by Mr. Steve E. Johnson in his presentation but if somehow, we are not receiving any data, we try to get through internet, magazines, papers, articles etc. Moreover, we use our expertise estimates to fill up these data gaps which are somehow close to the actual. But we make sure that the data is reliable and usable before putting up a crazy number.

We assume production status is not changing abruptly in a year's time. We repeat the information/estimation and do not apply any format.

Q. How to create proper information system and where from information can be obtained?

Information is generated at following points:-

- 1. By the working plan, precision of recorded reliable data
- 2. Removal from forest: two types of removal illegal and legal. System need to be developed for this.

Suggestions:

- Till now working plan is concerned with forest only. Now it is urged that ITTO, FAO, GoI should give input in framing working plan about these aspects outside the forests also.
- Evolve a study in this regard for getting estimated information.
- Movement of data is another dimension which needs to be taken into consideration.
- Outside forest issue also should have a place in working plan.

Q. How to assess this? Data needed?

Consensus was to focus on how to get data. Working plan officers be given authority in this regard. Some study may also be undertaken. Apart from Forest – separate working plan on legal and illegal removal are needed. Declining trend of GDP should be seen.

Comments/Observations:

NSSO carries out two types of surveys:

- 1. Annual Survey of Industries
 - All manufacturing sectors are covered every year. All estimates are valid upto intake level. This information is available every year.
- 2. There are a few industries that are not qualified as they don't have required manpower in position. These unorganised sectors are surveyed in every 5 years.
 - It was mentioned that data from India-quality and quantity both deteriorated since mid 80's. There is a need to examine why it had happened. Is it because of delay/low priority or whether it is a structural/institutional problem?

Why there is declining of data standard – GDP estimate. It is not that forestry sector is not performing properly. When we look data for GDP estimate, 3 (three) components in GDP estimate are taken – these are industrial wood, fuelwood, minor forest products.

It is noted that in general, consumption of the fuelwood should now come down because of use of alternative fuel resources while other components should increase. But data show consumption of fuelwood increase upto 65% while industrial wood have gone down 6-7% or so. Understanding is:

- The way data are collected about production on industrial wood by State Forest Department, there is a lot of inadequacy. Large amount of industrial wood production is not reflected on record. These information need to be captured.
- For forestry sector-some items like NIC classification was discussed. Information on those areas are also not collected and collated properly. There are other components too which are affecting the reliable information (agro sector, mining sector for GDP estimate be added)
- At this point, other participants added by saying that such dwindling (growth and decline) information are also affected by appropriate estimation-contribution of employment (contribution in the livelihood) – these need proper assessment. Like collection of fodder from forests is not properly estimated and recorded. Lot of forestry products are owned by private sectors. Social forestry – section are not providing detail information. There is no proper way of such data collection. Hence, there is a decline.
- Besides, there are other environmental issues influencing forestry (like temperature, land slide, rainfall etc.). These are not recorded. GDP is only one part while other issues are important aspects influencing forestry and

people depending on forests. Their (tribals) life support system is not properly reflected in the reports/statistics system due to lack of information.

 Ministry of Tribal Affairs be contacted for such complete information and a system may be worked out for that jointly.

Besides, National Statistics Commission also agreed about underestimation. The agro-section, live stock sections – the information system is weaker. For example Patwaris are showing on record existence of grassland which in actual situation is not in existence. This is a problem. Non-timber forest product estimate are alarmingly poor e.g. estimates of medicinal plants, its production, and utilisation. Information about product export is very poorly recorded, though it is very important.

Dr. Bipin Behari observed that forestry sector in India is performing. The problem doesn't lies in the methods of data collection but the main problem is non-availability of data from the large number of industries or agencies also which are using about 70% of the wood.

Some other comments made by the participants:

- Appropriate estimation needed
- Collection of fodder from forest no proper way of estimation/data collection so information needed is incomplete
- Other natural factors associated with forestry are not properly recorded soil erosion, water, climate change etc. etc.
- Information about use of produce by tribal is lacking. There is no institution to collect this information.
- Weaker Information system production of product and use
- Record of Patwari under estimation.
- Non-timber forest product difficult to estimate, consumption of these very high
- MoEF is in process of launching a study i.e. on fuelwood, fodder etc. Terms of Reference of studies have been prepared and these will be taken up soon.

Session 5: An overview of Forest Product Statistics – A view point of the industry

Chairperson: Dr. A.K. Malhotra, PCCF (HRD), Jharkhand Co-chairperson: Shri Arun Sen, APCCF (Production), Rajasthan

1. Presentation by Mr. R. C. Mall, Executive Director, Emami Paper Mill, Kolkata on 'Forest Products Statistics – Paper & Pulp Industry'

The gist of the presentation is given below:

• Paper industry is basic to human life. Paper consumption is linked with economic development in any country.

- Own way of developing statistical requirement for forest produces
- It helps industries for their own growth
- Paper industry is one of the core industries. Paper consumption is low in India in comparison to China but now it is growing.
- Growth in paper industry in China is 13% whereas in India it is 7%.
- Decline in growth 31-28% in North America
- In North America, forest cover is same even now as it was 20 years back.
- 40% pulp requirements come from wood pulp.
- Dependency for paper industry high on pulp.
- Wood requirement for paper
 - About 3% of wood required by paper industry. (Forest department possess detail information in this regard.)
- 2005 report 23% went up in plantation in 3 States and 34% went up in plantation in AP.
- Gigantic task is there in the country in respect of afforestation
- There are certain factors which are working as the motivating factor to take up the issue in a more aggressive way by forest departments.
- For industrial plantation there is a need of proper Multi-Stakeholder Partnership (MSP) and mobilisation of resources.



- Long term benefits are:
 - Increase of green cover
 - Chances of less migration because rural development would generate better sources of earning, livelihood.
 - Better foreign exchange etc.
- Help country in better export possibility

- He mentioned that to produce 1 ton paper we require more than $3\frac{1}{2}$ tonne of wood.
- Forest fires not only destroy huge plantations but also endanger several human lives
- Better circulation of money.
- Industry will be globally compatible.
- Organised approach of all stakeholders.
- Sustainability from all angles (rural/tribal people etc.) is possible with better planning.

Discussion

A question was raised that captive Plantation was uneconomic. What the industry is doing about it?

Shri Mall replied that it was a State promoted activity. About 10-15 years back this was a good backbone of their economics. But it is not perceived to be a good economic strength. While farm forestry is being encouraged by private sectors with farmers, their productivity has more than doubled as reported by Hindustan Newsprint Ltd. (HNL). That is one of the biggest factors which go against the State promoted activity – captive plantation.

Another point was shared that – pulp and paper industry – depending upon its size require appropriate land area and improvement in technology for its manufacturing unit. In the next 5 years for improvement in technology, more than 4000 crore of rupees will be spent by the paper manufacturing units.

Questions was raised again that what type of raw materials for increasing productivity are available?

Shri Mall again replied that the major species used for the productivity and for which technology is also available are babul, eucalyptus, acacia etc. Average of 50 tons of productivity per hectare over a period of 5 years is possible.

2. Presentation by Shri Sajjan Bhajanka, President, Federation of Indian Plywood and Paper Industry on 'Plywood and Panel Industries, status, challenges and opportunities'

The key points from presentation are summarized below:



- In Africa Virgin Forest minimum production at present.
- Major hardwood comes to India from Burma and Malaysia
- North-Eastern States, particularly Arunachal Pradesh 80% land is covered with forest, highest in India
- Farmers need encouragement for growing Agro-Forestry. If it is economically viable farmers are interested.
- Opportunities for India's wood based industry:
- For housing (residential), hardwood is in greatest demand.
- Organised sectors are also increasing.
- In future NGOs will play a crucial role in this respect also
- Forest cover has increased where plywood industry increased. Power consumption is also less.
- Fast growing plantation in China going on. In future, China will become top most country in the area of wood based products. 184 million hectare land is under forest in China. They grow fast growing species of plant and in less time they get its benefit.
- Captive plantations and certification should go hand in hand.

Discussion

Q. If we follow China model – likelihood that India may face criticism in respect of plywood? What is to be done?

With modification of China model, India may work out appropriate strategy for plantation, adapt the model suitably. Earlier in 1950-97, China was getting plywood etc. from Malaysia, Indonesia. Gradually, they shifted to raw material rather than having finished products from other countries and now they have achieved their target of growing raw materials and developed their own plantation. Their industries are dependent on their plantations.

Q. How to sustain this trend?

We should go for plantation – plan for hard wood forest, long duration forest. We also have to rethink of the strategy in case of natural disaster like forest fire and so on.

Dr. K.D. Singh suggested that for new technology, new institutions be created. Existing institutions can not absorb the new technology. Proper strategy also is to be thought for proper retention of qualified staff for the purpose.

Other comments made were: Natural forest should not be replaced. Industry plantation rather wants to fill in gaps and with an intention to regenerate land mass so that further growth is possible. Coming back to forest stratification issue, unless we go for large scale captive plantation, modality for organising stratification part will be difficult. For example in West Bengal farmers possess less than an acre of land. On an average no. of people engaged in forestry are large. If captive plantation is not organised on a large scale, it will be difficult to handle the situation where large no. of people are involved. In a balanced way it should be handled keeping in mind the practical situation. At the same time, farmer's interest also needs to be kept in mind on priority.

3. Presentation by Dr. Y.P. Gupta, Director, YG Consultants, New Delhi on 'Lateral and vertical movement of forestry statistics using MIS'

- His presentation was more of a conceptual level and technical.
- Statistics is not simply the numbers but it goes much beyond the numbers.
- MIS stands Management Information System which has important role like
 - Functional support role
 - Decision support role
 - Performance support role



- The term Data warehouse was coined by Bill Inman in 1990.
- MIS can play a very important role in forestry sector as maintaining large scale of data manually by each State/UT will be difficult and time taking.
- In forestry sector, there is need to maintain data electronically in structured form.
- Data transfer will not be a problem because of new technology revolution.
- Software should be simple so that they can be easily operated by non-technical persons like clerks.
- The need of the hour is fully computerized database management system.

Mr. Padovani thanked the three speakers and expressed that their contributions will definitely enable the concerned body to tackle the problems which they are facing in performing the tasks.

4. Working Groups and their findings

4.1 Working Group I

e

Session 2: Trends in reporting of Forest Products Statistics

Chairperson: Mr. Felice Padovani, FAO Co-chairperson: Ms. Frances Marie Maplesden, ITTO

Three working Groups were formed by Dr. Bipin Behari in consultation with Mr. Padovani. Each group consisted of at least three States' representatives:

Group I	-	Andhra Pradesh, Assam, Gujarat
Group II	-	Madhya Pradesh, Kerala, Maharashtra
Group III	-	Haryana, West Bengal, IPRITI (Bengaluru)

The remaining participants from other States and organisations were randomly divided among the three groups.

Three groups were given following topics:

Group I:	FP Statistics: Removals: Wood fuel and Industrial Roundwood
Group II:	FP Statistics on production: Sawn wood, WBP, Pulp and Paper
Group III:	FP Statistics on Trade

The three working groups discussed the assigned topics in their group separately and prepared the presentation after detailed discussions in the group.

Presentation of the reports by the three groups and discussions

Group II

Presentation

- 1. Sources of Information: Sources are not well defined, but are listed below
 - a. Forest Department Through FOREST GUARD untrained, over aged
 - b. Other agencies
- 2. Methodology used
 - a. PRA
 - b. Formats
 - c. Unavailability of standard statistical methods for estimating and reporting unrecorded products
- 3. Information flow
 - a. Lack of Trained manpower and infrastructure at compiling stages (Range, Division, Circle)
 - b. Lack of effective networking between Forest Department and other agencies
- 4. Data reliability
 - a. Major forest produce high/medium reliability
 - b. NTFP poor reliability Standard approach is not available?
- 5. Institutional Structures for data collection
 - a. Institutional structure is inadequate(multi-responsibility)
 - b. Lack of capacity man & material
 - c. Lack of trained manpower
 - d. Tenure of trained manpower
 - e. Out sourcing for data collection and compilation
- 6. Other weakness
 - a. Low priority for statistics Govt. policy populist not for forestry products stats.
 - b. Placement of personnel political interference
 - c. Standard parameters, methodology, periodicity of data collection at various level not codified

Discussion

- The group indicated that focus is not well defined.
- Standard formats in estimating and reporting forest products are used. There are lot of unrecorded issues which are not covered by standard formats.

- Main defect is information flow. There is a lack of trained manpower and infrastructure facilities for compiling information. Of course, in Maharashtra and Kerala those personnel are available at divisional and higher levels. In other States, it is lacking. They also commented that such trained staff can train lower level staff who are actually supported to do the job. Standard format and methodology need to be developed.
- Data reliability is a question. No standard approach is followed. In case of NTFPs, reliability of data is very poor.
- Institutional structure for data collection. In most of the States, data are collected through regular staff who are overburdened with regular pressure of job already in existence. In many States several posts are lying vacant. Existing staff with pressure of work are unable to take load of additional work. At present forest guards are involved in gathering information, who are untrained for the purpose. Quality of data thus becomes questionable.
- Lack of capacity both manpower and material.
- In some State responsibility of data collection is entrusted to outside agency but they lack efficiency/less equipped.
- Low priority to State data collection of forest produces by the department
- Tenure of manpower in a position is also a question. This aspect need serious attention.

Group III

Presentation

- 1. Existing information systems should be reviewed for development of effective MIS. An Information Need Analysis (INA) should be carried out on State/ Region/ National and International Level.
- 2. Modern technology like GPS, GIS should be used extensively for data collection and dissemination.
- 3. Methodologies for checking liabilities should be developed, spelling out adequacy for meeting requirements at various levels of information.



- 4. The need of new information in changing frontiers of production by the forestry sector like trees outside forests, NWFPs should be accessed and an institutional mechanism developed for assessment.
- 5. Need based information and reinforcement of Policy, planning and monitoring in the forestry sector and services along with fixing of accountability.
- 6. Data collection should be independent of the implementing agency. Instead of outsourcing it should be done through some institutional mechanism and be independent of bias.
- 7. The responsibility of review, planning and education should be taken up by the Ministry of Environment & Forests, Government of India and adequate steps to ensure data availability with high quality and integrity.

Discussion

- Issue is that Information Source of knowledge and power are related. For getting good statistics, good data should be gathered scientifically. There should have well organised structure and information system and evaluation and its approach. At present there is no plan of clear cut approach which has been revealed by State presentations. Knowledge in respect of day to day crime, monitoring etc. is missing. MoEF should make a note of it and initiate action in this regard.
- Designing the system of gathering data, information system, monitoring and evaluation, training of the people and developing necessary institution need special attention.

- Registering information on regular basis. Detail R&D work should be initiated.
- Collect new type of information: Good plan is needed for this.
- Techniques and training can help in identifying parameters etc.
- Well defined information system needed. Institutions who are to deal with it be identified.
- Working plan based on scientific information collection should be on continuous basis.
- Use of technology to cater demand of data from various levels
- Network of information gathering through community resources outside forest department.
- Separate mechanism to collect scientific and administrative information on continuing basis.
- Use of information should be in proper perspective.

Group I

Presentation

Source of information

- a. Field staff of the forest department /revenue department/PWD department/
- b. State Government agencies/Central Government agencies
- c. Non-government agencies/Community based organizations/Villagers/ Stakeholders
- d. Already available literature / Administrative reports/working plans, monthly bulletins/ news letters/ Field Records/ Research Papers / Forest plantation records/ Monthly reports / Research reports /
- e. User agencies



Methodology -Present scenario

A. Mechanism for collection Manual collection of data already exists in the pre-designed formats
In some States collection of data is being done through using modern tools like GIS/MIS

Drawback-

- A. Staff was not trained and lack technical skills
- B. Lack of qualified manpower
- C. Too many details create confusion
- D. Formats were too complicated to be used by untrained staff
- E. Staff is not accustomed to use GIS / MIS
- B. Information Flow
 - A. Bottom to Top/ Lateral
 - B. Frequency (Instant, Monthly, Quarterly, Yearly)

Drawback-

- A. Delay due to low priority
- B. Incomplete
- C. Lack of Machine Networking
- C. Data Reliability
 - A. Regular Data Probability of reliability is high
 - B. Incidental Data (particularly illegal & calamity) Poor

D. Institutional Structures

- A. Unstructured Statistical Cell (Primary Investigators and Statistical Inspector are being utilized for other works.)
- B. Lack of uniformity
- C. Vacancies for ISS officers

E. Weaknesses and Constraints

- A. Lack of infrastructure including Manpower
- B. Inadequate fund in some States
- C. Lack of incentives and Career Planning
- D. Redefining the formats based on the local, regional and national requirements
- E. Curriculum for basic trainings to the forest officers and staffs

Discussion

- Information sources are both NGO, Public and private sectors and various institutes. They all act as sources of information. User agencies also source researches and working plans.
- Mechanism of collection of data it is going on manually. Some States now are using MIS for information collection. But drawbacks are that present staff is not trained and skilled in collection of information. No training given to staff for collection of statistical data.
- Non-availability of qualified manpower.
- Too many detailed information creates confusion and in the process relevant information get suppressed/missed.
- Formats are designed by skilled persons while their utilisation is by untrained/unskilled persons. This is a serious problem. In other words, skilled staff should be deployed both for data collection on formats and use of information.
- Management by objective is missing. This needs attention.
- Bottom to Top flow of information must be systematic and on continuous basis.
- Drawback in this regard is because of low priority due to which the flow of data from bottom to top gets disturbed.
- At present, it is not happening due to low priority delay in flow of information. And incomplete information or less useful information are supplied.

- Lack of machine network. Manual information flow exists. For quick information flow machine is not available. Manual information flow need to be substituted by machine information flow and training to staff for that.
- Reliability exist in monthly and annual report but in case of calamity, reliability of data is poor and then questionable.
- Institutional structure is not sensitized in maintaining uniformity and whatever meagre statistical staffs available is used for other works. The solution is that they should be used for the job for which they are recruited.
- Lack of trained manpower and infrastructure in all States. In some cases, it is present but inadequate. Uniformity is lacking. Vacancies are there for statistical staff but recruitment is not there/delayed.
- Lack of incentive to statistical staff. Keeping in view the demand for information, some incentive, carrier planning should be thought of.
- Sensitivity among staff to be created through training.
- Formats need rechecked, keeping in view of requirements. Hence, need based formats need to be worked out.
- Broadly, several deficiencies exist and hence there is a:
 - Need of skilled people with statistical background and also of orientation of staff
 - Recruitment of trained staff
 - Regular uniformity of formats for local, State, central and international levels. Formats be designed keeping in view the capability of staff engaged for the purpose
 - All data may not be available from Administrative Reports. Survey, therefore, may have to be conducted to get those information. Uniform structure should be followed
 - Staff should be sensitive to gather information.
- Regular required data from reports may not be available always. Thus, survey be done at regular interval to overcome such short comings.
- Uniform way/method to be adopted and policy at national level be streamlined.
- Adequate provision of budget for doing so.

4.2 Working Group II

Session 4: Reports of working groups on consolidation of Regional and National Forest Products data

Topics for discussion by the three groups were (1) data gaps and provision of missing data, and (2) the various aspects of JQ1 and JQ2.

For discussing the above topics, the groups were given following topics to deliberate and make presentation of their findings:

Group I:FP Statistics on Removals - Woodfuel and Industrial RoundwoodGroup II:FP Statistics on Production - Sawnwood, WBP, Pulp and PaperGroup III:FP Statistics on Trade

Group I

Presentation

JQ1

Industrial Roundwood

- Data on Production of industrial roundwood for which no permission is required is not available. There is huge volume.
- Standardization of definitions.

Firewood

The problem in developing countries is more focused to removal of Bamboo and fuelwood

• Removal of firewood from forest area is not being assessed. Same is true for TOF as well.

Discrepancies –

Different patterns of removals

- Consumption-Data is not available
- Unit value Not recorded in any value
- Measurement Should be in cubic mt
- Collecting / Integrating data from different sources From Govt. Agencies From Private agencies

Socio-economic survey done by the NSSO should be taken as baseline to develop estimates for the fuelwood

JQ2 Standardization of conversion of UNITS of measurements

Group II

Presentation

JQ1

Sawnwood

- 4. Imperfect recording of saw mills in some States which needs correction.
- 5. Improper Maintenance or non maintenance of records of timber received or disposed/processed in the sawmill
- 6. Transit passes not/or partially used by traders.



Wood Based Panels

2. Control of forest department on wood based panel is largely non- existent. Hence, furnishing of data is becoming difficult.

Pulp and paper

- 2. Record of department supply is maintained
- 3. Supply from outside department is also very substantial

JQ 2

- 2. Outside record is not accounted in many States uniformity needed.
- 3. Very small quantity imported. Hence, no record is provided to FD system to be evolved for correct information in-flow.

JQ 3/DOT 1 - NA

Notes:

- 3. Import and export need to be redefined in the light of International requirements especially transit rules.
- 4. Legal Procurement Certificate (LPC) should be introduced, where TOP is not taken.

Graphical study conclusion

- 3. In most of States AAR, statistical reports are available.
- 4. ICFRE/ IASRI/ISI/CSO can be entrusted to examine old records and come out with solution for finding reason of gaps?

Few concluding remarks were:

In item code 1872/Sawnwood

- 3. The Sawnwood from 1985 to 1995 remained static, which reflects missing information.
- Similarly from 2002 onwards, the production showing sharp jump from 7500000 to 15000000 in 2005 – definitely the information has some disrupted fillings

In item code 1632 again from 2000 onwards, the production is showing sharp jump from 2000000 to 10000000 in 5 years period – need examination? Special study needed.

Similarly, in item code 1633 Sawnwood also has the same trend.

Group III

Presentation

I. Various aspects of JQ2 and JQ3

• Using classifications:

JQ2

- 4. HS code for pulp is available; data on further classification such as mechanical, chemical of which sulphite bleached, non-sulphite bleached, etc. is not available as per the HS code.
- 5. Similarly, for other items, HS code is the primary key for database. Unless HS code addresses the classification, data are difficult to get.
- 6. There is heterogeneity in units of measurement. Appropriate conversion factors need to be created for bringing about uniformity.

JQ3 may not pose any problem in furnishing data.

Bamboo and other raw material in paper products are not reflected. They should also find a place in the classification of secondary processed wood products.

- *Using definitions:* Definitions are quite adequate and practical.
- Using Excel: Easy to use.
- *Functionality:* System for communication at States/UTs is not available.
- Measurements: CUM/MT
- Collection/Integrating different data sources in the JQ (Production, Trade): Right step for data analysis and synthesis.

II. Data gaps and provision of missing data: For data gaps, there is no provision

Discussion

States (80%) are submitting data on JQ1 and JQ2. The remaining 20% of the States are submitting data in one year and with a gap of 1-2 years. On analysis, we are getting estimates/trends. Adding to 20% States complete information given by 80% States, we complete JQ1 complete form.

Mr. Padovani said that time table in a year needs to be worked out. Adding to this it was said that detail legal dimensions are also to be looked into with emphasis on Transit permits in respect of forest produces.

Consensus was how the information can be gathered and for that a systematic mechanism should be worked out for gathering information.

4.3 Working Group III

Session 6: National and Regional information needs and scope

Formation of two groups, one on National Information Requirement and the other on Regional Information Requirement

Chairperson: Mr. Felice Padovani, FAO Co-chairperson: Ms. Frances Marie Maplesden, ITTO

The participants were invited to identify the Solutions to problems affecting their State/National forest products statistical systems in relation to:

JQ3

Group I: National Information Requirements

- (i) National Output reporting formats and units and use of forestry statistics in policy and decision making at the national level
- (ii) Indicators for assessing the national status of forests
- (iii) Relative importance of parameters in terms of forestry database
- (iv) Issues related to improvement in National Forest Products Statistics

Group II: Regional Information Requirements

- (i) Regional Output reporting formats and units and use of forestry statistics in policy and decision making at the regional level
- (ii) Collection format of regional forestry statistics and their importance
- (iii) Solutions to problems encountered in statistical reporting
 - Source of information
 - Methodologies used
 - Data Reliability
 - Other Constraints
- (iv) Issues related to improvement in Regional Forest Products Statistics

Group I & II made the presentations on the topics assigned to them.

Session 6 started with the comments of the chairman of the session that during the last 2 days (13th and 14th May, 2008) of the conference, participants raised various problems associated with the issue. And in this session, participants were to present and discuss the solution/ strategies about how to overcome those problems.

Group I: National Information Requirement

Presentation

Problems/gaps	Suggested solutions			
Non uniformity in formats	MoEF to design and disseminate uniform formats on State specific considerations with simple terminology			
Data collection is given low priority	MoEF/SFDs to give high priority for data collection			
Data on sawn wood/plywood /wooden panel-incomplete	MoEF need to devise mechanism in consultation with all stakeholders and also by making special study by inference /correlation study.			
Non uniformity in use of units	MoEF need to enforce metric units/cubic metres/tonnes in time bound manner.			
Inadequate use forest statistics with regard to GDP calculations.	GDP parameters need to be revised and updated immediately to account for the visible gaps.			

Indicators for assessing the national status of the forests Separate indicators need to be incorporated for the following:

- Density
- NTFP
- Biodiversity genetic , species variation and eco system
- Carbon content of forest eco system
- Quality ant qty in non forest areas

Relative importance of parameters in terms of forest data base:

- r Timber
- NTFP
- 3 fodder
- Fuelwood
- Forest fauna
- Mangroves
- Wet lands/lakes, rivers



Issues related to improvement in forest product statistics:

- Strengthening of statistical cell in terms of manpower, infrastructure and networking on uniform pattern/training of personnel involved
- Adequate financial support to be provided to the statistical cell in SFD and all related agency involved at central govt. Level or NGOs or anybody.
- Efforts for simplification of the formats for data collection. Uniformity be enforced by MoEF and SFD/other agencies.
- Systematic plan to be devised to involve experts at all levels and staff/officers involved in SFD/central govt./any agencies be given proper training.

- Due priority be given for this important work in SFD and central govt. Agencies.
- Information flow to be made systematic.

Consolidation of national forest product statistics:

- MoEF to design and disseminate uniform formats on State specific considerations with simple terminology
- MoEF/SFDs to give high priority for data collection
- MoEF need to devise mechanism in consultation with all stakeholders and also by making special study by inference /correlation study.

Solution to main problems related to collection, compilation and regular dissemination of forest products statistics:

- MoEF need to enforce metric units/cubic metres/tonnes in time bound manner.
- GDP parameters need to be revised and updated immediately to account for the visible gaps.

Roles and responsibilities of the State Forest Departments towards maintaining a sustainable forest products statistical system in India:

- Orientation training to personnel of statistical cell
- Strengthening of state cell by providing PCs with internet/intranet connectivity
- Orientation training to field staff to gather quality primary data
- Minimum/maximum tenure of posting of personnel need to be specified
- Mechanism needs to be devised for collection of data from industry and non forestry lands.
- Data on bio diversity to be gathered need to be specified in consultation with all stakeholders.
- Providing quality communication equipment at field level for quicker transmission of primary data to higher level.

Discussion

- Formats are creating confusion as they are not uniform with simple terminology.
- Less priority in collection of statistical data on forestry produces by State governments. High priority is suggested.
- Data on Sawn wood, plywood, wooden panel etc. is not complete. About 75-80% of units, data in organized sectors are not collected timely and reporting about those are therefore incomplete. Whatever data received are not authentic. Thus, it is suggested that MoEF in consultation with all stakeholders, define mechanism for the purpose, conduct studies and based on findings suggest ways and means to overcome the existing problems.

- Non-uniformity in using units-lots of disparity is in existence. MoEF through some legislation introduce uniform units.
- Inadequate use of forest statistics. Information is not taken into account while making decisions. It is thus suggested that GDP parameters need to be revised and updated immediately to account for existing gaps.
- Separate indicators for assessing national status of forest need to be incorporated for density, NTFP, bio-diversity, species variation, eco-system, quality and quantity in non-forest areas etc.
- Issues related to improvement in forest products statistic, strengthening of statistics cell in terms of manpower, infrastructure and networking on uniform pattern, training of personnel, adequate financial support to statistics cell in SFD and to all agencies (including NGOs) involved for the purpose
- Efforts for simplification of formats for data collection in an uniform pattern (to be introduced by MoEF and SFD)
- Systematic plan to be devised to involve experts at all levels; all officer involved in this work be exposed through training. Due priority be given to these activities through SFD. Information flow to be made systematic and in-time.
- Broad survey-consolidation of national forestry products statistics MoEF to design and disseminate uniform formats and State specific consideration with simple terminology, MoEF an SFD are to give high priority to data collection; MoEF need to design in consultation all stakeholders and also by carrying out special studies.
- Solution to problems like collection, compilation, dissemination of forest products statistics, MoEF need to enforce revised units and GDP parameters for all practical purposes.
- Minimum/maximum tenure of posting of personnel needs to be specified. Mechanism needs to devise for data collection. Data on bio-diversity should be gathered.

Group II: Regional Information Requirement

Presentation

Information Need Analysis

Group identified two areas /groups of Information System, which are proposed to be integrated eventually;

- Traditional Forest Reporting System (TFRS)
- New Emerging areas outside traditional forestry (OTS) Agro-forestry, NTFPs, Fuelwood, Fodder, etc.

Traditional Forestry System: TFS

- Set up a comprehensive technological based Forest Information System in each SFD at State level for traditional forestry data.
- Establish Community Center Network for collection of information on NTFPs and specific areas involving JFMCs, VPCs, etc.

Outside Traditional Forestry System: OTFS



New Emerging areas outside traditional forestry (OTS) include;

- Agro-forestry,
- NTFPs,
- Fuelwood,
- Fodder,
- Industrial consumption, etc.

Establish Community Center Network for collection of information on above specific items.

- Integration of two systems;
 - Forest Report System
 - Outside Forestry System

For above purposes;

Establish State level exclusive agency with adequate infrastructural facility and qualified trained manpower with adequate institutional environment [GIS and MIS] to cope with and update the system on continuing basis.

Discussion

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- Group broadly divided regional State information needs in 2 categories:
 - 1. Traditional forest reporting system since centuries this approach is followed. Now new emerging areas are added within this. It was felt 2 sub-categories to be taken into consideration.
 - a. Departments which are doing for the last 100 years, and
 - b. Within the forest department some new emerging item areas. This second sub-category is outside forestry system information in these regards is needed in future.

a. Traditional Forestry System

Group felt that all the States are collecting and compiling information (like timber etc.) new emerging needs demands like NTFP from forest, which were not collected before – need to be incorporated – separately under forest information system.

People are exposed in doing so. There is a need for format remodeling working out proper information system. Basic data are there. It needs remodeling: latest technology be used, training of people for that is essential.

Online information system should be worked out. New mechanism need to be found out for information gathering. For that community centre network be formed (community being the most important beneficiaries) for collecting NTFPs.

b. Outside Traditional Forestry System

Identify new type of categories of information available. For agro-forestry – fodder, industrial production and consumption etc., it was felt that a community network (like ATMA – created by Planning Commission) source will be from two streams –

- i) Traditional Forestry System; and
- ii) Outside forest department

For this purpose new technologically sound State level exclusive agency with trained person, computer training etc. be thought of.

One important question was raised during discussion that how can we give high priority?

During discussion it emerged that States should send data – They should adopt strategy for collection, compilation of data. This cannot be overlooked.

In order to highlight importance of forestry statistics, letter shooting from MoEF is not the only solution. Statistics cell in the States have to be created, strengthened and hard and soft ware facilities be given/supported and State Governments seek help/develop network along with non-forestry departments and industries for such aspects. These are the ways for developing data base. MoEF has also worked out a plan for organizing 5 (five) workshops in 5 regions in near future to discuss these issues, identify gaps and find ways and means.

A comment was made by a participant that above given ways and means may not work. Rather, there is a need to create new institution which can enable, maintain GIS, MIS etc. There is a need to also consider how to retain manpower who are expert in the area but leave country for oversea jobs once they get opportunity (like AP who started GIS, MIS units). New technology with old department cannot be merged. New technology with new institution is the answer for such issues/problems.

At this point Mr. Padovani expressed – it is important to maintain proper statistics cycle of any information. This is for consideration of group/States.

5. Field Visit Report



Participants near Taj Trapezium Zone Plantations (TTZ)

The participants visited Taj Trapezium Zone Plantation areas and Bear Rescue Centre. The detailed presentations were made by the officials of Provincial Forest Department and the NGOs. The experience of data collection at the ground level and the entire chain of information flow was shared by the NGOs and the staff of Provincial Forest Department. The Provincial Forest Department of Uttar Pradesh was one of the pioneer States in India to take up the data networking in the forestry sector with the necessary application of IT. A number of problems and their probable solutions were also discussed for better understanding of the problems of data collection, compilation and dissemination at the field level. A brief of the presentation made to the participants is given below:

Taj Trapezium Zone Plantations (TTZ)

Pollution Threat to Monuments:

Rapid industrialization and urban growth in the Agra-Mathura region has affected adversely the world famous Taj Mahal and other historical monuments. They are under constant threat from the ever-increasing environmental pollution. The growth of cities and industries is generally considered indicative of progress and prosperity. But while the industrial society enables man to raise his economic standards, it also brings deterioration in the environmental health.

It is said that Taj Mahal, one of the wonders of the world is loosing its luster and has become slightly coloured due to the effect of air pollution over the years. It is feared by some experts that the ever increasing emissions caused by the industrial units particularly foundries, glass industries, brick kilns, Mathura refinery etc. if not checked, may turn the mausoleum black by the time India enters the 21st Century.

NEERI in its report have indicated that the industries in the Taj Trapezium are the main source of pollution, which are damaging the Taj Mahal. As per report the identified receptors viz Taj Mahal, Agra Fort, Etmad-ud-Daula, Fatehpur Sikri, the optimum width of green belt has been computed as 200 meters taking into account the requirement of attenuation of SO_2 & No_X , which are most active during stone decay process. The distance between the receptors and green belt may vary from 200 m to 500 m depending upon the availability of land. In this context, besides other measures a recommendation has been made for massive afforestation around these monuments.

Origin of Taj Trapezium Zone (TTZ):

In relation to the Writ Petition filed in the Supreme Court by Sh. M.C. Mehta for protection of the Taj Mahal from pollution, the Hon'ble Court asked for a survey report from NEERI. The research Institute studied the sources of the emission of pollutants and found that the foundries of Agra, Mathura refinery and glass industries & brick-kilns of Firozabad were mainly responsible. Accordingly TTZ was chalked out by NEERI, which includes five districts viz. Agra, Mathura, Firozabad, Etah and Hathras of Agra Commissionary. To protect the Taj from pollution by a collective efforts of many departments viz. Jal Nigam, PWD, Forest Department, UPSEB etc. a budget of 600 crores was sanctioned under TTZ scheme. The Forest Department of five districts received Rs. 9.43 crores out which Agra Social Forestry Division alone was given Rs. 2.7 crores for Afforestation works.



Physical & Financial Progress:

Afforestation programme under TTZ scheme was under taken in five districts namely Agra, Mathura, Firozabad, Hathras and Etah during the period 1999-2000 to 2002-03. Under this project afforestation was done over 2388 ha. against the target of 2378 ha. The total cost of project was Rs. 943.31 lakh.

The district-wise physical and financial achievement is as below:

S.	Name of district	Physical (ha.)		Financial (Rs. lakh)	
No.		Target	Achievement	Sanctioned	Expenditure
1	2	3	4	5	6
1.	Agra	818	828	298.05	268.99
2.	Mathura	740	740	294.15	258.81
3.	Firozabad	520	520	200.27	181.37
4.	Hathras	165	165	72.83	61.12
5.	Etah	135	135	78.01	66.82
	Total	2378	2388	943.31	837.11*

*Rs. 106.20 lakh yet to be released.

Bomb-dump plantation (TTZ)

Plantation area: 65 ha.

No. of saplings planted : 71500

Planting year: 2000 and 2001

Details of advance soil work

Pits at a spacing of 3m x 3m were dug using earth augur in an area of 65 ha. at a rate of 1100 pits per hectare. The depth and diameter of the pits are 1.20 m and 0.23 m respective.

Planted_species

A large number of species were planted but emphasis was given to indigenous species. The main species are Azadirachta indica, Dalbergia sissoo, Holoptelia integrifolia, Tamarandus indica, Syzygium cumini, Terminalia bellirica, Feronia limonia, Cordia dichotoma, Albizzia procera, Melia azedarach, Buahinia variegata, Anthocephalus cadamba, Ficus religiosa, Ficus benghalensis, Ficus virens, Ficus glomerata Cassia fistula, Inga dulcis, Butea monosperma, Pongamia pinnata, Putranjiva, roxburghii, Emblica officinalis, Terminalia chebula, Kath sagwan, Tectona grandis, Cassia siamea, Acacia auriculiformis, Ailanthus excelsa, Eucalyptus, Delonix regia, Aegl marmelos etc.

Irrigation

Irrigation was done with the help of HDPE (High density polyethylene) pipes from a tube well. Irrigation in plantation was done on plant-to-plant basis. A total of 12 irrigations were applied throughout the year barring the months of monsoon i.e. twice every month from April to June and once every month from October to March. First weeding & hoeing operations were done in October and the second in the month of February.

Protection

Three-strand barbed wire fencing was done with posts of angle iron at spacing of 3 meters. For fencing 1.80 quintals of barbed wire per hectare were used. Grouting of angle iron was done in pits of $0.30m \ge 0.30m \ge 0.42$ m with cement concrete. The barbed wire strands at the angle iron posts were fixed at a height of 0.40m, 0.85m and 1.30m from the ground level.

General Condition of Plantation

General health is very good and survival rate is approximately 80%.

6. **Recommendations**

Chairperson: Shri G.K. Prasad, Additional Director General of Forests, MoEF, GoI Panellists: Mr. Felice Padovani Ms. Frances Marie Maplesden Dr. K.D. Singh Dr. S.P. Sharma Dr. Bipin Behari

Dr. Bipin Behari made a presentation of the key recommendations based on various presentations, discussions and the group work discussions and asked the participants and the panellists to consider the recommendations with necessary changes/modifications, additions or deletions as they deem fit. Some modifications in the recommendations were suggested by the participants and panellists. Some points were raised on which a detailed discussion took place and recommendations were finalized with the active participation of all the participants:



Final Recommendation

- 1. Existing Information systems should be reviewed for the development of effective MIS. The Information Need Analysis (INA) should be carried out for data on State/Region/National and International level.
- 2. States /UTs must provide data in complete form and in time.

- 3. The various institutions, wood based industries and their Associations and available limited validated data sources may be utilized towards the development of forestry database management system.
- 4. States/UTs must be strengthened with necessary hardware and software to facilitate promptly data collection and dissemination.
- 5. A mechanism need to be developed for the assessment of production of the forestry sector from non-forest areas.
- 6. The responsibility of review, planning and education should be taken up by the Ministry of Environment & Forests and adequate steps to ensure data availability with high quality and integrity.
- 7. Directorate of Forest Economics and Statistics needs to be created under the Ministry of Environment & Forests for forestry data networking as the outcome of National Forestry Database Management System (NFDMS) scheme.
- 8. International Tropical Timber Organisation (ITTO) may provide financial assistance for phase-II project to ICFRE for further strengthening of data networking in the Country. This may include financial support to the States also towards achieving the target.
- 9. FAO, ITTO and other international donor agencies may provide financial support for necessary outlook studies through Ministry of Environment & Forests.
- 10. The allocation of funds to the forestry sector specifically for strengthening of forestry statistics in the States/UTs must be enhanced.
- 11. The necessary capacity building must be provided to develop the expertise at all levels.
- 12. The States/UTs must provide a copy of Annual Administrative Report annually to ICFRE and the Ministry.
- 13. The Directorate General of Commercial Intelligence & Statistics, Kolkata may provide necessary support to ICFRE with the export and import data on forestry items specified under Chapter 22 and 44 of ITC (HS) classifications at the earliest.
- 14. Statistical Cells must be created in each State/UT and must be adequately strengthened on regular basis.
- 15. Need to conduct studies on removals of fuelwood, fodder etc. from forests and other areas in order to supplement the forestry database.

- 16. Need to have proper dissemination mechanism at the State level so that whatever data is being generated, it can be disseminated properly and used effectively.
- 17. Specific surveys need to be carried out on estimation of consumption of forest products by industries (e.g. paper, pulp etc.) and for un-organised sector, which is not covered under the nationalized surveys.

7. Closing of the Workshop

Mr. Aditya Joshi, the Meeting Co-ordinator (MC) asked if any of the representatives/ delegates would like to share his/her experiences and thoughts.

First of all, a representative of the workshop gave the closing remarks. He discussed the usefulness of statistics in designing the programme and said that the workshop was very well organised. The venue was very comfortable and good. He gave special thanks to Dr. Bipin Behari and goods wishes to Addl. DG who was the main guiding force behind all this. He also said that they will go back with very good experience.

Dr. Felice Padovani

Dr. Padovani said that in future if we are going to improve our statistics, after the workshop, we know much better who produces the statistics and who somehow is behind the numbers. He also said that these types of workshops are being very – very rewarding from technical, human and cultural point of view.

Ms. Frances Marie Maplesden

Ms. Francis congratulated Dr. Bipin Behari, staff of MoEF and the organisers for such a successful workshop. She wished all the best for acting upon the recommendations as it concludes all the sessions. She was really impressed by the quality of the discussions. She gave thanks for such a wonderful trip and also for the kind hospitality which was absolutely fantastic. She also said that it was a wonderful experience for her.

Mr. G.K. Prasad

First of all, Mr. Prasad felt sorry that he could not attend the workshop for all the three days but he said that he was sure, in three days all the participants have brought on all the problems and some of the suggestive solutions. The enthusiasm with which all the participants participated gave such hope that our endeavour has been successful and will be able to rise to the occasion and come up with the solutions. In these words, he thanked all the participants very much.

Dr. Bipin Behari

Dr. Behari thanked to Hon'ble Minister of State Shri Thiru Sevugan Regupathy who was kind enough to give his precious time for inauguration and also joined at the dinner on the first day. He also expressed his sincere thanks and gratitude to three experts - Dr. Steve E. Johnson, Mr. Felice Padovani, Ms. Frances Marie Maplesden for being there in the workshop. They have taken all initiatives to make this workshop successful. The design of the working group modules, even the whole structure of the programme in consultation with Ms. Maplesden and above all their own contribution and interest in the subject which facilitated and encouraged all the participants. He again thanked for their cooperation, endurance and support.

He also expressed his thanks to Addl. DG under whose guidance the workshop was organized. He thanked to all the participants as they have given their valuable time and come from different parts of the country. He said that 'I hope you have a comfortable stay'. He again thanked to all of the participants for their cooperation and very active participation. He also thanked the media for their support and coverage.

He thanked to Mr. Aditya Joshi and also to the staff of Survey and Utilisation Division, MoEF for their day and night hard work and also appreciated their work. He also thanked to Dr. Y.P. Gupta, local National consultant and his secretarial staff.

Last but not the least, Dr. Bipin Behari thanked to Mr. Shyam, Event Manager for his coordination. He also thanked him for the hospitality of the hotel. With these words, he thanked everyone for their active participation in the workshop which made the workshop a grand success. He said that proceedings and copy of the report will be sent to all the participants in CD.



8. List of Participants

- 1. Shri Aditya K. Joshi AIG, MOEF (on study leave)
- Shri Ajay Kumar Lal Director (IFS) Ministry of Environment & Forests, New Delhi
- Shri A. K. Malhotra
 Principal Chief Conservator of Forests (HRD)
 Department of Forests, Government of Jharkhand, Ranchi
- 4. Shri A. K. Srivastava Additional Principal Chief Conservator of Forests Department of Forests, Government of Andhra Pradesh, Hyderabad
- 5. Shri Arun Sen Additional Principal Chief Conservator of Forests (Production) Department of Forests, Government of Rajasthan, Jaipur
- Dr. Bipin Behari DIG (SU) Ministry of Environment & Forests, New Delhi
- 7. Shri B.S. Sajwan Chief Executive Officer National Medicinal Plants Board, New Delhi
- Shri C. N. Pandey Director, Indian Plywood Industries Research and Training Institute, Bangalore
- 9. Shri Chandra Shekhar Singh Conservator of Forests (MIS) Department of Forests, Government of Himachal Pradesh, Shimla
- Shri Devendra Pandey Director General Forest Survey of India, Dehradun
- Shri Dharmendra Verma Assistant Director General (Statistics) Indian Council of Forestry Research & Education, Dehradun
- Shri Dhirandra Singh Conservator of Forests (M&E)
 Department of Forests, Government of Punjab, Chandigarh

- Sh. G. N. Pradha Deputy Director Forest Department, Government of Sikkim, Gangtok, Sikkim
- Shri G. T. KumarDCF (WP)Department of Forests, Government of Goa, Panaji
- Dr. H. V. Bathla Head, Division of Sample Survey, Indian Agricultural Statistics Research Institute (IASRI), Pusa Road, New Delhi
- Dr. Indrani Chandrasekharan Adviser (E&F), Planning Commission, Yojana Bhawan, Sansad Marg, New Delhi -110001
- Shri Jarnail Singh Conservator of Forests (Gorewada Project) Department of Forests, Government of Maharashtra, Nagpur
- Shri J. K. Tewari Chief Conservator of Forests (FMIS) Department of Forests, Government of Kerala, Thriuvanathapuram
- Sh. J. Yadav Director, CSO Central Statistical Organisation, Ministry of Statistics & Programme Implementation, Sardar Patel Bhawan, New Delhi -110001
- 20. Dr. K. D. Singh Ex- FAO Expert
- 21. Shri Mudit Kumar Chief Conservator of Forests Department of Forests, Government of Chhattisgarh, Raipur
- 22. Dr. M. Muni Reddy APCCF (Forest Resource Management), Aranya Bhawan, Bangalore – 2, Karnataka
- 23. Shri M. S. Rana Additional Principal Chief Conservator of Forests (Production) Department of Forests, Government of Madhya Pradesh, Bhopal
- 24. Sh. Nisheeth Saxena Deputy Conservator of Forests Van Sadan, Haddo P.O. Port Blair – 744102
- 25. Shri O. P. Pandey Chief Conservator of Forests (Bio-diversity) Department of Forests, Government of Assam, Guwahati
- 26. Sh. P. Bhanumati Joint Director, Ministry of Statistics & Programme Implementation Central Statistical Organisation, Ministry of Statistics & Programme Implementation, Sardar Patel Bhawan, New Delhi -110001
- 27. Dr. Rabindra Kumar DDG (Extn), ICFRE PO New Forest Dehradun – 248006
- Shri Rajesh Kumar
 Sr. Deputy Director
 Forest Survey of India, Dehradun
- 29. Shri Rajiv Pandey Scientist-D & Head (Statistics) Forest Research Institute, Dehradun
- Sh. Rakesh Sinha Addl. PCCF, HQ & WD, West Bengal Aranya Bhawan, LA-10A, Sector III, Salt Lake, Kolkata – 700098
- Shri Raman Nautiyal Scientist-D Indian Institute of Forest & Research Education, Dehradun
- Sh. Ramesh Kolli
 ADG, Ministry of Statistics & Programme Implementation
 Sardar Patel Bhawan, Parliament Street, New Delhi 110001
- Shri R. C. Mall Managing Director, Emami Paper Mill Ltd., Kolkata
- Shri R. K. Sapra
 Chief Conservator of Forests (Production)
 Department of Forests, Government of Haryana, Panchkula
- Shri R.P. Mishra
 Director
 Directorate General of Commercial Intelligence & Statistics, Kolkata
- Shri Saibal Das Gupta Joint Director Forest Survey of India, Dehradun
- 37. Shri Sajjan Bhajanka
 President
 Federation of Indian Plywood & Panel Industry (FIPPI), Kolkata

- Shri Santan Talukdar Chief Conservator of Forests (Admin), Project In-Charge, JBIC Department of Forests, Government of Tripura, Agartala
- 39. Dr. Savita Sharma Deputy Director General Central Statistical Organisation, Ministry of Statistics and Programme Implementation, New Delhi
- 40. Shri S. C. Pant Chief Conservator of Forests, Project (M&E) Department of Forests, Government of Gujarat, Gandhi Nagar
- Shri S. K. Nandi
 Scientist F & Head,
 Bio-diversity Conservation & management & Bio-technological Affairs
 G. B. Pant Institute of Himalayan Environ Ecology, Kosi-Katanmal, Almora
- 42. Shri S. N. Rao GM (Spl. Projects) ITC Ltd., PSPD 106, Sardar Patel Road, Secunderabad – 50003
- 43. Dr. S. P. Sharma Statistical Adviser Ministry of Environment & Forests, New Delhi
- Shri S. Roy
 DFO (Statistics)
 Department of Forests, Government of West Bengal, Kolkata
- 45. Dr. S. S. Samamt
 Scientist Incharge
 G. B. Pant Institute of Himalayan Ecology, Himachal Unit, Mohal Kullu
- 46. Dr. T. R. Manoharan
 Senior Coordinator Forest Policy & Economics
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- 47. Dr. Y. P. Gupta Director
 Y. G. Consultants & Services (P) Ltd, New Delhi

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WORKSHOP

on FOREST PRODUCTS STATISTICS IN INDIA

New Delhi, 13-16 May 2008 Venue

Hotel The Grand Intercontinental Rarakhamha Road New Delhi

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Time	Provisional Programme	
9.00 a.m. – 9.30 a.m.	Registration	
9.30 a.m. – 9.40 a.m.	Welcome address	Dr. Bipin Behari, Deputy Inspector General of
		Forests, National Focal Point for ITTO in India,
		MoEF, GoI
9.40 a.m. – 10.00 a.m.	ITTO Activities in India and background of the	Dr. Bipin Behari, Deputy Inspector General of
	Workshop	Forests, National Focal Point for ITTO in India,
		MoEF, GoI
10.00 a.m. – 10.10 a.m.	Address by Representative, Government of India,	Shri G.K. Prasad, Additional DG, Ministry of
	MoEF	Environment & Forests, Government of India (GoI)
10.20 a.m. – 10.30 a.m.	Address by representative of ITTO	Dr. Steve E. Johnson, ITTO
10.10 a.m. – 10.20 a.m.	Address by Representative of FAO	Mr. Felice Padovani, Forestry Officer (Statistics)
		Forest Products & Industry Division, FAO, Rome,
		Italy
10.30 a.m. – 10.50 a.m.	Inaugural Address	Thiru S. Reghupaty, MoS, Forests and Wildlife,
		MoEF, Government of India
10.50 a.m. – 11.00 a.m.	Vote of Thanks	Dr. S.P. Sharma, Statistical Adviser, MoFF GoI
11.00 a.m. – 11.30 a.m.	High Tea	TOO & TTOTAL Grand and and and a state of the



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			ONDE CONTATION OF CONTACTORY CONTACTORY
Date	Session and Theme	Time	Lecture
13 th May	Session 1: Strengthening of collection of forest	11.30 - 16.00	Presentations by 10 States/UTs on the status of statistical reporting of
2008	products statistics – roles and responsibilities of State/UT Governments		forest products in the respective State forest departments (15 minutes each)
	Lunch	13.30 - 14.30	
	Session 2: Trends in reporting of Forest	16.00 - 17.00	• The basic role and responsibilities of a Forestry Statistical Office
-	Products Statistics		(F. Padovani, FAO) (30 minutes)
			• National Forestry Database and Policy decision- Dr. Bipin Behari
			(30 minutes)
	Formation of the Working Groups and Instructions:	17.00-18.00	Discussion: Status of reporting of forest products statistics in India.
	Reception	18:00-19:00	
14 th May 2008	Working Groups discussion on issues relating to improvements of national forest products statistics	09.00-10.00	Presentation of the reports of the working groups and discussions
	Session 3: International data reporting	10.00 - 13.30	 Joint Forest Sector Ouestionnaires – approach and concent – Dr.
	requirements		Steve E. Johnson (45 minutes)
			 Current status of Forestry Statistics in India and trends in their statistical reporting – Mr. Raman Nautiyal. (45 minutes)
	· · · · · · · · · · · · · · · · · · ·		 Review of India's forestry statistics and issues relating to the adequacy of data provided by India – Mr Felice Padovani (30
			minutes)
			Group discussion on (1) data gaps and provision of missing data (2) the various aspects of JQ1 and JQ2. Three groups to be formed to discuss the finer points of methodologies to ensure reporting of the
			following three aspects of JQ1 and JQ2:
			Group I: FP Statistics: Removals: Woodfuel and Industrial Roundwood
			Group II: FP Statistics on Production: Sawnwood, WBP, Pulp and Paper

Group III: FP Statistics on Trade.	h 13.30 – 14.30	14.30 – 15.00 ● 'Forestry Statistics regarding export – import scenario in India' – Mr. R. P. Mishra, Director, DGCI&S, Kolkata (30 minutes)	15.00 – 17.00 Group discussions to continue	on 4: Reports of working groups on blidation of Regional and National Forest17.00 - 18.00 nethodologies developed followed by discussionsarrived at and at andon 4: Reports of MethodIntervent of Resentations by the three groups on decisions arrived at and methodologies developed followed by discussions	Field trip to Agra	Session and Theme Time I active	 5: An overview of Forest Products 9.30 − 11.30 'Forest Products Statistics – Paper & Pulp Industry' - Mr. R.C. Mall, Executive Director, Emam Paper Mills, Kolkata (30 minutes) 	 'Plywood and Panel Industries status, challenges and opportunities' – Shri Sajjan Bhajanka, President, Federation of Indian Plywood and Paper Industry, India (30 minutes) 	 'Lateral and vertical movement of forestry statistics using MIS' – Dr. Y.P. Gupta, Director, YG Consultants, New Delhi (30 minutes) 	Discussion	Stational and Regional11.30 - 13.30Formation of Two groups, one on regional information requirement and the other on national information requirements with the following Terms of Reference:	 Group I: National Information Requirement National Output – reporting formats and units and use of forestry statistics in policy and decision making at the national level Note the national level 	 (iii) Indicators for assessing the national status of forests (iv) Relative importance of parameters in terms of forestry database (v) Issues related to improvement in National Forest Products Statistics. 	 2. Group II: Regional Information Requirement (i) Regional Output - reporting formats and units and use of forestry statistics in policy and decision making at the regional level
	Lunch			Session 4: Reports o consolidation of Reg Products data	ay 2008	Section and	Session 5: An overview Statistics – A view point				Session 6: National and information needs and so			
					15 th M	Date	16 th May,	0007			_			

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Field Visit to Agra

15th May 2008

Organized by

Ministry of Environment and Forests

Government of India

Time	Programme
6.00 a.m.	Starting for Agra from New Delhi
8.30 a.m.	Breakfast enroute at Country Inn, Kosikala
10.00 a.m.	Expected Arrival time at Agra
10.00 a.m. – 12.30 p.m.	Visit to Taj Trapezium (TTZ) Plantations
12.30 p.m. – 01.30 p.m.	Lunch at Hotel Taj View, Agra
01.30 p.m.	Leaving for Fatehpur Sikri and Agra Bear Rescue Facility (ABRF)
	 Presentation on 'Methodology for collection of forestry and wildlife data at the grass root level' by UP Forest Department, Agra
5.00 p.m.	Tea at ABRF courtesy Uttar Pradesh Forest Department
6.30 p.m.	Leaving Fatehpur Sikri for New Delhi
8.30 p.m.	Dinner enroute at Country Inn, Kosikala
10.30 p.m.	Expected time of arrival at New Delhi