

# QUALITY ASSURANCE

By

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# QUALITY ASSURANCE

- Quality assurance aims to get reliable and unambiguous data and results
- Anchors on three pillars
  - *Competence requirements*
  - *Training and*
  - *Implementation*

# COMPETENCE REQUIREMENT AND TRAINING

## Competence requirements

Competence is required at different levels in order to carry out specified tasks correctly and efficiently

### Managers and trainers

#### *Tasks*

- Coordination
- Mobilization of equipment and crews
- Planning of work activities
- Procurements
- Recruitment
- Reporting at higher levels (national and international)

#### *Qualifications*

- academic degree in forest sciences as well as good knowledge and experience in forest measurements

# Field crew leaders, assistant leaders and enumerators

## *Tasks*

- biophysical field measurements

## *Qualifications*

- professional education in forestry eg Certificate in Forestry, Diploma, degree
- participation organized NAFORMA training courses

## **For tree identifiers**

### *Qualifications*

- academic degree of sciences (biology, ecology, botany)
- experience as botanist in the field is required
- Experienced local tree identifiers

# Training

Despite the fact that almost all crew members are foresters with Diploma up to MSc degrees training is important before commencement of the field work

This is to ensure

- common understanding of all procedures and techniques,
- proper use of equipment

Field teams were trained on

- Methodology of the inventory
- Planning of field work

# Training cont

- Field measurements (sample plot, and tree measurements)
- Correct use, maintenance and care of field equipments
- Data collection techniques by interviews
- First aid kit
- Work independently

## Three training sessions were carried out

- The first training involved biophysical data collection
- The second one was on socio-economic data
- Third combined both biophysical and socio-economic data
- The first and second training resulted in reviewing the biophysical and socio-economic field manuals
- The third training was used to collect actual NAFORMA data

# QUALITY ASSURANCE

Focuses on

- proper use of inventory equipment : HP-GPS, hypsometers, densiometer etc
- adherence to basic mensuration protocols
- Emphasis on:
  - plot locations
  - tree measurements using proper instruments rather than estimating
  - Correct tree spp identification and recording
  - Use of 1.3 m stick to determine uniform point of dbh measurement
  - Use of slope correction tables
  - Use of Diameter tape in permanent plots



# QUALITY ASSURANCE cont

- Avoid errors at all stages
  - Errors in taking measurements and reading
    - » Involves instruments and individuals
  - Errors in recording in the field
  - Errors in Data entry into computer
    - » Self checking data base (continuous)
- Crew Leaders to re-check data thoroughly before submission
- **Maintain quality assurance teams**
  - There are two QA teams of 4 people each
  - Remeasures quarter of all clusters
  - Most expensive in terms of transport
  - Reports discrepancies to respective teams immediately

# QUALITY ASSURANCE cont

Data entry team to play QA

- Consists of 7 young graduates in Forestry
- Informs Coordination team of any abnormality
- Queries field teams immediately abnormality is detected

Errors detected at data analysis also reported back

# Quality control checklist

- Field control checklist
- Data entry checklist
- Data validation checklist

End

Ahsanteni sana, Thank you very much