Conservation and Development of *Boswellia papyrifera* using branch cuttings:

Learnings/Lessons from 14 years old plantation/experiment

By

Niguse Hagazi, CIFOR-ICRAF on behalf of TARI & MU

As an input for the workshop on

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Sharing knowledge to meet local needs and national commitments"

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Introductory points

- There is a serious concern over the fast decline in the population of *B. papyrifera* tree

- Thus, field experiment was conducted to determine better propagation techniques/option – **Conservation & development**

Factor	Level
Time of planting	**5** (Feb., March, April, May & June)
Length of branch Cuttings	**4** (30–50 cm, 90–110 cm, 150–170 cm, and 200-220 cm)
Girth of Brach cuttings	**3** (13–18 cm, 18–23 cm & 23–28 cm)

Introductory points cont..

Summary of the findings from the experiment

- Time of planting & size of branch cuttings determine the establishment of the frankincense tree
- **Survival rate**, shoot & root establishment rate, number & length of shoots, leaves & roots were the main parameters collected

Factor	Result of survival rate
Time of planting	March (94.45%); April (91.67%)
Length of branch cuttings	90–110 cm (90%), 150-170 cm (86.66%), & 200-220 cm (86.66%)
Girth of branch cuttings	18-23 cm (73.3%); 23.1-28cm (85%).

Introductory points cont..

The conclusion obtained from the experiment

- Higher survival & growth field performance rates of planted cuttings were obtained in the months of March & April using cutting sizes ranged from 90 - 220 cm in length & 18-28 cm in girth.
- **For successful establishment & development:** cuttings should be collected from *Boswellia* trees that look healthy at least phenotypically & planted directly in the field in the months of March & April u f 1-2 m in length & 18-28 cm in

Planting techniques and management

What happened after 12 years of the establishment?

A study made on

- Production and chemical composition of frankincense resin, regeneration and phenological characteristics of plants established through branch cuttings as compared to naturally grown trees of *Boswellia papyrifera”.*





THANK YOU