



**IFAR 2005 Professional Development Program
Completion Report
[800 words]**

Instructions:

Please submit the completion report by email, using this form, through the sponsoring CGIAR Center to ifar@ifar4dev.org within two months after the completion of the fellowship.

Please check if Thalwitz Scholarship

Yes

Name of Applicant -----ALICE MUCHUGI-----

Sponsoring CGIAR Center

--ICRAF-----

I. Work Program goals achieved (maximum length: 200 words)

Have achieved the following goals:

1. Collection of fruits and extraction of seeds from 20 *W. ugandensis* trees Laikipia provenance from Kenya for mating system study.
2. Raising seedlings (from seeds collected above) for five months mating system study
3. DNA extraction from 20 seedlings each from the selected 20 trees
4. Field survey in Kenya, Mozambique, Tanzania and Uganda for *Warburgia* species fruiting for cytology study

II. Plans for follow-up (maximum length: 200 words)

1. Cytology study; I have already visited the areas with all the different species (*W. stuhlmanii*, *W. elongata* and *W. salutaris*) targeted for fruit collection in Kenya and Tanzania, and liaised with ICRAF staff in Mozambique and Uganda The coastal species fruiting is in February, and the fruit collection will be undertaken then to get seedlings for cytology work. Cytology work for *W. ugandensis* is going on. (Additional funding is requested for this as explained in the cover letter).
2. Mating system study; AFLP analysis on the DNA samples extracted above has been initiated and will be completed by the end of February.
3. Collaborate with other interested partners on the conservation of the coastal species whose populations have been greatly depleted (Further funding is requested as explained in the cover letter).

III. Report budget utilization including whether budget was spent as planned (maximum length: 100 words)

1. AFLP Laboratory consumables (as per proposal)	US\$ 5 200
2. Travel for sample collection	
Kenya (Laikipia, Masai Mara, Kitale, Karura)	US\$ 1 950
Tanzania (Pangani, Kisarawe, Lushoto)	US\$ 1 500
Uganda (Kibale)	US\$ 750
Mozambique (Maputo)	US\$ 550
3. General expenses	US\$ 50
 Total	 US\$ 10 000

NB: Detailed accounting has been done through ICRAF

**IV. Assessment of the fellowship experience and general comments.
(maximum length: 300 words)**

I appreciate the funding from the fellowship towards the completion of my research work; it came in handy when the projected work was almost stalling. I however feel that the time program is rather too short for some experimental projects like mine which will be relying on data or material from the field which is beyond ones control. I would suggest more flexibility on the time (say one year) so that one can give a conclusive report.

From my surveys it is quite clear why the species of this genus are being classified as endangered. Indiscriminate felling of trees in our study areas (and probably others) for timber, firewood and charcoal requires that urgent measures be taken to prevent extinction of the species in these areas.

To achieve this, I would recommend further work on:

1. Coastal species (*W. stuhlmanii*, *W. elongata* and *W. salutaris*) germplasm multiplication via seed collection and vegetative propagation
 2. Local community sensitization on the species conservation via extension in collaboration with the forestry department NGO's (like WWF based in Kenya) who wish to rehabilitate the fast degrading areas where *Warburgia* occurs
 3. Reproductive biology of these coastal species as they seem to contrast the *W. ugandensis* very much
 4. Phytochemical assays and herbal product development from these species
- It is my sincere hope that this work will attract further funding from IFAR.