

# Stakeholder workshop, 1<sup>st</sup> February 2008

The Darwin project held a final workshop targeting a wider audience of Tanzanian natural resource managers and decision makers to discuss the project's results and provide a forum for discussion on the way forward for monitoring and managing invasive plants in Tanzania. The workshop brought together 30 managers, decision makers and conservation scientists representing 18 institutions and 2 national newspapers.

The workshop:

- Presented the results from the three-year Darwin project and discussed next steps.
- Engaged managers and decision makers from key institutions in Tanzania to discuss monitoring and managing invasive alien plants in Tanzania, to-day and in the future.
- Provided a forum for networking among Tanzanian conservation managers, decision-makers and biologists concerned with the growing threats of IAPs in Tanzania.

## *Feedback from the delegates attending the stakeholder discussion workshop*

All the delegates indicated they will be pleased to be involved in future work on IAPs. The delegates said the workshop was *very informative* (67%) or *informative* (33%), noting that it incorporated management, research and collaboration aspects, and helped create awareness among the delegates. The majority of the delegates (89%) felt they were *very likely* to take ideas from the workshop back to their institutions. The delegates identified the following as key gaps in IAPs research and management in Tanzania:

- inadequate knowledge and skills, and sustainable mechanisms for management/control,
- financial and technical constraints,
- inadequate awareness of IAPs,
- lack of a national inventory of IAPs, their impacts, as well as IAPs hotspots.

*They recommended:*

- the mainstreaming of invasive alien species programmes in other natural biodiversity programmes,
- that more efforts in creating awareness, training and mobilising resources for IAPs work, and
- the packaging of [IAPs] information for end users.

A major outcome of the workshop is that the Ministry of the Environment announced that it would ensure “*recommendations from this project, as well as deliberations from our discussions today are strategically applied in improving how we manage invasive alien plants, not only in the Eastern Arc region, but in Tanzania as a whole*”.

***“Fantastic workshop, the support of Tanzania Government through VPOs [Vice President’s Office] is highly acknowledged and an opportunity not to lose”***

*Delegate, Sokoine University of Agriculture*

Table 1: 3<sup>rd</sup> Darwin Training workshop, list of trainees

#	Participants	Sex	Institution	Department
1	Celestino Balama	M	Tanzania Forestry Research Institute	Morogoro Office
2	Christina M. Ngalawa	F	Sokoine University of Agriculture	Forest Mensuration & Management
3	Dos Santos Silayo	M	Sokoine University of Agriculture	Forest Engineering
4	Raymond R. Killenga	M	Forestry and Beekeeping Division	Tanga Catchment Forestry
5	Ezekiel Edward	M	Sokoine University of Agriculture	Forest Biology
6	Hildergarde Aloyce	F	Community Conservation Films Project	
7	John Richard	M	Tanzania Forestry Research Institute	Lushoto Silviculture Research Centre
8	Samora M. Andrew	M	Sokoine University of Agriculture	Forest Biology
9	Halima R. Penga	F	Tanzania National Parks	Saadani National Park
10	Simon Mosha	M	Tanzania Forest Conservation Group	
11	Mathayo M. Mathew	M	Sokoine University of Agriculture	Forest Mensuration & Management

## Training workshop programme

Peacock Hotel, Dar es Salaam: 31<sup>st</sup> Jan 2008

Key steps in managing alien plants in Tanzania: 3rd training workshop of the Darwin Initiative Project

- 09:00 Introduction: what do we need to know to manage weeds (Phil)
- 09:30 Follow-up work after the 2007 workshop: Lessons from the Usambaras
- 09:30: Population status and distribution of *Cordia alliodora* in Amani Nature Reserve (Ezekiel Edward)
- 09:50: Is *Castilla elastica* a threat to plant diversity in a tropical rain forest of Tanzania (John Richard)
- 10:10: Spread of *Cedrela odorata* in Amani Nature Reserve (Mathew Mpanda)
- 10:30 Discussion
- 10:40 Coffee/Tea
- 11:10: *Cedrela odorata* invasion in the Uluguru Mountains (Jasson John, Chelestino Balama & Edward Ezekiel)
- 11:30: Results of a risk assessment of alien plant species in Ngorogoro (Hassan Nkya, Hildegard Aloyce & Martina Hagwet)
- 11:50: Risks associated with alien plants at Saadani National Park (Halima Penga)
- 12:10 Discussion
- 12:30 Lunch & presentation feedback
- 13:45 Options for Weed Management (Phil)
- 14:30 Exercise: Developing options for selected weeds in Amani
- 15:30 working tea/coffee
- 15:45 Results of Exercise
- 16:25 Post- project follow-up
- 17:00 Ideas for tomorrow
- 18:00 Close

### Trainers and resource persons

Prof. Phil Hulme	Lincoln University, New Zealand
Dr. Rosie Trevelyan (RT)	Tropical Biology Association
Mr Anthony Kuria	Tropical Biology Association
Mr Wayne Dawson	Aberdeen University

**Stakeholder discussion workshop: The growing threat of alien plants in Tanzania: Lessons from the Eastern Arc and beyond**

- 08:45 Arrival: teas and coffees  
09:25 Welcome  
09:30 Summary of the Darwin project and the problem of alien invasions (Phil Hulme)  
09:55 The capacity building programme of the Darwin project (RT)

**Project results: lessons from the East Usambaras**

- 10:15 The ecology and threat of invasive plants in East Usambara (Wayne Dawson)  
10:25 Population status and distribution of *Cordia alliodora* in Amani Nature Reserve (Ezekiel Edward)  
  
10:35 Tea/Coffee  
  
11:00 The potential threat of *Castilla elastica* in East Usambaras (John Richard)  
11:10 Spread of *Cedrela odorata* and attitudes of local farmers (Mathew Mpanda)  
11:15 Discussion

**Project results: lessons from elsewhere in Tanzania**

- 11:35 Are forest boundaries of *Cedrela odorata* a threat in Uluguru Mountains? (Jasson John, Celestino Balama & Ezekiel Edward)  
11:45 Results of a risk assessment of alien plant species in Ngorogoro (Hassan Nkya, Hildegard Aloyce & Martina Hagwet)  
11:55 Management and risks of alien plants in Saadani National Park (Halima Penga)  
12:05 Discussion  
  
12:30 Lunch  
  
13:45 How to win the war against aliens: from management plans to sustainable outcomes  
Discussion & break-out groups  
  
15:15 Tea/Coffee  
  
15:45 Feedback: Next steps and opportunities for further work  
16:30 Closing address (Mr. Richard Muyungi, Assistant Director, Division of Environment)  
  
16:40 Cocktail party  
17:40 Guest leave at own pleasure

## Appendices

### Appendix 1: List of delegates at the Stakeholder workshop

	<b>Delegate</b>	<b>Institution</b>	<b>Department/Work Station</b>	<b>E-mail</b>
1	Dr. Mohamed Rose-Anne	Ministry of Agriculture	Plant Health Services	rose_mohamed@yahoo.com, Roseanne.Mohamed@kilimo.go.tz
2	Dr. Rosie Trevelyan	Tropical Biology Association	European Office	rosie.trevelyan@tropical-biology.org
3	Mr. Anthony Kuria	Tropical Biology Association	Nairobi Office	tba-africa@tropical-biology.org
4	Mr. Celestino Balama	Tanzania Forestry Research Institute	Morogoro Office	balamapc@yahoo.co.uk
5	Mr. Corodius Sawe	Amani Nature Reserve	Amani	sawe59@yahoo.com
6	Mr. Dos Santos Silayo	Sokoine University of Agriculture	Forest Engineering	dsilayo@yahoo.co.uk
7	Mr. Francis Sabuni	Eastern Arc Mountains Conservation Endowment Fund	Morogoro	eamcef@easternarc.or.tz
8	Mr. Inyasi Lejora	Tanzania National Parks	Arusha	ilejora@hotmail.com
9	Mr. Jasson R. M. John	University of Dar es Salaam	Botany	wildornithology@yahoo.com
10	Mr. John Richard	Tanzania Forestry Research Institute	Lushoto Silviculture Research Centre	jorijomb@yahoo.com
11	Mr. Joseph Marco	Daily News	News	unclej@yahoo.com
12	Mr. Lawrence Mbwambo	Tanzania Forestry Research Institute	Morogoro	ngara-tz@morogoro.net, lmbwambo@yahoo.com
13	Mr. Lota Melamari	Wildlife Conservation Society of Tanzania	Dar es Salaam	wcst@africaonline.co.tz; melamarilota@yahoo.co.uk
14	Mr. Mathayo M. Mathew	Sokoine University of Agriculture	Forest Mensuration & Management	mshauri2005@yahoo.com
15	Mr. Nasser Kigwangallah	The Guardian	News	kigwa_n@yahoo.com
16	Mr. Raymond R. Killenga	Forestry and Beekeeping Division	Tanga Catchment Forestry	raykillenga@yahoo.co.uk
17	Mr. Richard Muyungi	Vice President's Office, Rep. of Tanzania	Division of Environment	tanzania37@hotmail.com
18	Mr. Samora M. Andrew	Sokoine University of Agriculture	Forest Biology	smacrice@suanet.ac.tz, smacrice@yahoo.com

	<b>Delegate</b>	<b>Institution</b>	<b>Department/Work Station</b>	<b>E-mail</b>
19	Mr. Simon Moshia	Tanzania Forest Conservation Group	Dar es Salaam	smosha2005@yahoo.com
20	Mr. Stephen Mariki	World Wide Fund for Nature	Tanzania Programme Office	smariki@wwftz.org
21	Mr. Thomas Bwana	Vice President's Office, Rep. of Tanzania	Division of Environment	tbwana2000@yahoo.com
22	Mr. Wayne Dawson	Aberdeen University	Centre of Ecology and Hydrology	wda@ceh.ac.uk
23	Mrs. Halima R. Penga	Tanzania National Parks	Saadani National Park	hrpenga@yahoo.com
24	Ms. Christina M. Ngalawa	Sokoine University of Agriculture	Forest Mensuration & Management	christinamohamed2000@yahoo.co.uk
25	Ms. Ezekiel Edward	Sokoine University of Agriculture	Forest Biology	ezedwa@yahoo.com
26	Ms. Hildergarde Aloyce	Community Conservation Films Project	Dar es Salaam	misshilder2002@yahoo.com
27	Ms. Nike Doggart	Tanzania Forest Conservation Group	Dar es Salaam	ndoggart@tfcg.or.tz
28	Prof. Pantaleo Munishi	Sokoine University of Agriculture	Forest Biology	pmunishi2001@yahoo.com
29	Prof. Phil Hulme	Lincoln University	National Centre for Advanced Bio-Protection Technologies	hulmep@lincoln.ac.nz
30	Prof. Seif S. Madoffe	Sokoine University of Agriculture	Forest Biology	madoffe@suanet.ac.tz

#### Expected Delegates who sent apologies

1	Mr. Eric Mugurusi	VP's Office, Rep. of Tanzania	Division of Environment	ericmugurusi@yahoo.com
2	Dr. Felician Kilahama	Forestry and Beekeeping Division	Dar es Salaam	feliciankilahama@yahoo.co.uk, fordev@africaonline.co.tz
3	Dr. Mduma Simon	Tanzania Wildlife Research Institute	Arusha	mduma@habari.co.tz
4	Eng. B.T. Baya	National Environment Management Council	Dar es Salaam	nemc@nemctz.org
5	Hassan Maktauwa Nkya	Tanzania Wildlife Research Institute	Arusha	nkyaahm@yahoo.co.uk
6	Mr. Charles Meshack	Tanzania Forest Conservation Group	Dar es Salaam	cmeshack@tfcg.or.tz
7	Mr. Evarist Nashanda	Forestry and Beekeeping Division	Catchment Forest Section	cmms@mnrt.go.tz

## Appendix 2: Closing remarks

By R. S. Muyungi, Acting Director of Environment, Vice President's Office, Tanzania  
1 February 2008, Peacock Hotel, Dar es Salaam.

Chairperson,  
Distinguished Participants,  
Ladies and Gentlemen,

It is my pleasure to have been invited to officiate his important workshop alongside, all the Tanzanian institutions represented here. It is my hope that you enjoyed yourselves.

Invasive species have been identified worldwide as one of the main threats to the environment and its biodiversity. Tanzania puts much value to its environment as it provides resources for virtually all national socio-economic activities. We believe a healthy and resilient environment is the basis for our livelihood and foundation for eventual alleviation of abject poverty in the country. As a country, we have taken steps to ensure our environment is protected through policy and legal frameworks and institutional arrangements. Tanzania is a signatory to Convention on Biological Diversity (CBD). By ratifying to the CBD we have in part committed ourselves "to strictly control the introduction of non-indigenous species" to Tanzania. I am pleased to inform you that my office's serves as Tanzania's focal point to the CBD and as a Division, we take great interest on issues of invasive alien plants.

Ladies and gentlemen, the Division of Environment's assessment indicate that, we have made little but growing progress in managing invasive alien plants existing in our country. Already, NEMC, TAFORI, TANAPA, etc, have made major steps in addressing this issue and have some programmes of invasive alien plants management. More important, as a country, we now appreciate that invasive alien plants are a major threat to our rich biological resources and the discussions here today will attest to that. Further, we recognise the limited national expertise to tackle invasive alien plants and the general lack of interest and awareness on the threats invasive species pose to our environment. I am pleased that this project has tackled these challenges as you have all heard from the results presented here today.

I am confident that we have all, not only learnt a great deal today, but also gained invaluable insights and understanding of invasive species in Tanzania. We must now take the bull by its horns and translate the excellent results presented here and the outputs of this workshop to do something for our country. As persons and institutions able to influence policy in this country, it is imperative that we:

- prevail upon our leaders to establish an all inclusive national action plan on IAPS
- continue to create awareness on this grave problem threatening our natural inheritance
- work towards developing programmes that go beyond the current project to ensure continued monitoring and ultimately management of invasive alien plants in this country
- Strengthen the network of individuals and institutions already formed by this project so that they can be more effective in their work on tackling the risks Invasive alien plants pose to our environment.

The Division, ladies and gentlemen, works to formulate policies on the environment, and co-ordinate and monitor environmental issues as well as environmental planning. We share the country's concern on invasive plants and we will take upon ourselves the task of ensuring that recommendations from this project, as well as deliberations from our discussions today are strategically applied in improving how we manage invasive alien plants, not only in the Eastern Arc region, but in Tanzania as a whole.

Finally, I thank all institutions involved in this project for their good work. My office recognises and is highly encouraged by this initiative and want to guarantee you that the findings from this project will be used to contribute to our reports for the CBD. I also want to thank the Darwin Initiative of the British government for financial support that allowed you undertake this work. Last but not least, I acknowledge the hard work and commitment of the project team for finding it fit to come and share their excellent results with us today. With those few remarks, let me take this opportunity to wish you a safe journey back to your institutions.

Thank you.

## Appendix 3: Trainees questionnaire responses

**a) Number of respondents: African: 9 Percentage responses****b) How would you rate the two days of the workshops?**

<b>1</b> Very poor	-	-
<b>2</b> Poor	-	-
<b>3</b> Average	-	-
<b>4</b> Good	1	11%
<b>5</b> Excellent	8	89%

(any comments)

- Well organised and coordinated and planned
- Fantastic workshop, the support of Tanzania Government through VPO's is highly acknowledged and an opportunity not to loose
- The concept was very well covered. Very useful comments
- Well organised. Active participation
- Well organised. Involved many potential stakeholders
- Next time allow flexibilities in the time table, particularly discussion of issues that target the aim on workshop/training
- 

**c) Now that we are at the end of the Darwin Initiative Project, do you think you will use the knowledge and skills gained during the project training activities over the last 3 years in your work back at your institutions?**

<b>1.</b> (No)	-	-
<b>2.</b> (Yes)	9	100%

If yes, how?

<b>Comments</b>	<b>Responses</b>
<ul style="list-style-type: none"> <li>• Carrying out pilot study on management of IAP particularly <i>Cedrela odorata</i>; Amani Nature Reserve; Amani Botanic Garden</li> <li>• use the management options for alien invasive species</li> <li>• Monitoring alien invasive species</li> </ul>	4
<ul style="list-style-type: none"> <li>• Use risk assessment technique to rank potential of invasion different alien species have</li> <li>• Conduct small studies on IAPs /research – apply for funding but also encourage others to work in the areas of IAS</li> <li>• Conduct some more research on risk assessment in many protected areas.</li> <li>• do risk assessment and set management options for IAPs</li> </ul>	6
<ul style="list-style-type: none"> <li>• Make presentation to departmental members and students</li> <li>• Teaching wildlife economics; effects of IAPs including invasive in the wildlife economics with relation to wildlife management</li> <li>• proposal for education programmes</li> <li>• Through raising awareness on invasive alien species through films as well as teaching people on the risk assessment methods for invasive species.</li> <li>• Encourage students to prepare their project work in the area of IAPs</li> </ul>	6
<ul style="list-style-type: none"> <li>• Write proposal for networks establishment of experts in IAPs</li> </ul>	1

d) What other specific support would you need to enhance your work on invasive alien plants in Tanzania?

<b>Gaps</b>	<b>Responses</b>
<ul style="list-style-type: none"> <li>• <b>Financial support/follow up grant:</b> to implement pilot removal, monitoring and control, awareness raising, conduct research/ risk assessment/ useful baseline research; for IAPs management practices</li> <li>• <b>logistical support</b> to undertake my research/ create awareness (e.g. to make &amp; disseminate films and measure their impacts)</li> </ul>	<b>8</b>
<ul style="list-style-type: none"> <li>• <b>Access to information</b> on biological invasions (e.g. subscription to international/recognised journals/articles)/literature, organisation that support conservation initiatives e.g. combating IAPs plants internationally/ areas of concern</li> <li>• <b>News about invasive</b> via TBA</li> <li>• <b>Education materials</b> to teach people.</li> <li>• <b>Training team</b> to educating people.</li> </ul>	<b>6</b>
<ul style="list-style-type: none"> <li>• Enhanced <b>priority of AIPs</b> by FBD</li> <li>• <b>Institutional/technical support</b> and advice</li> <li>• <b>networks</b> for update information on IAPs within Tanzania and elsewhere</li> </ul>	<b>4</b>
<ul style="list-style-type: none"> <li>• <b>Experience from other tropical countries</b> on effectiveness of different management options</li> </ul>	<b>1</b>
<ul style="list-style-type: none"> <li>• further <b>training</b> seminar or workshops</li> </ul>	<b>1</b>

## Appendix 4: Delegates feedback on stakeholder workshop

## a) How informative did you find the workshop?

1. Not informative	-
2. Informative	33%
3. Very informative	67%

## Comments

- There is a lot of information out there which is very valuable for our day to day activities
- The workshop incorporate in management aspects, research aspects and great extent collaboration
- Though centred mainly on the Eastern Arc forests
- Of course the workshop was very good and attractive because it [kept] most of the participants to be aware on invasive species. Therefore I think most of the people will be aware.

## b) Do you think you will take any ideas or issues from the workshop back to your work at your own institution?

1. Not likely	-
2. Likely	11%
3. Very likely	89%

**Comment:** The research findings presented were mainly based on the findings from Amani Nature Reserve. Need to put in practice

## c) What gaps do you think exist in invasive species research and management in Tanzania, and how might they be filled?

- **Financial limitations**

*“Financial constraints in making effective eradication of invasive species in most forests”*

*“The research activities should be supported financially and technically”*

*“Inadequate financial resources”*

- **Limited Human Capacity or technical know how to deal IAPs**

*“Inadequate knowledge and skills in management/control especially effective mechanical and chemical methods”*

*“The biology of the invasive and cost-effective control strategies are not (well) known. More research and pilot control experiments need to be done to provide the missing information”*

*“Inadequate sustainable mechanism on controlling invasive species”*

*“Lack of models of utilising invasive species”*

*“Inadequate human and financial resources”*

*“It may be useful to expand to include both flora and fauna. This would give opportunity of showing broader impacts to biodiversity”*

*“Inadequate technical know how”*

*“Inadequate human capacity”*

*“Lack of technology on how they can finish or destroy [these] species”*

- **Lack of /limited awareness**

*“Need awareness creation for public to understand the implications of invasive species. This may stop illegal importation of plants and animals”*

*“Inadequate awareness”*

*“Awareness to both decision makers and forest managers on biodiversity values”*

*“Most of the people were not aware on the alien invasive species”*

- **Institutional limitations**

*“A national inventory of [IAP] species and impacts, as well as IAS hotspots”*

*“Mainstreaming IAS programmes in other natural biodiversity programme”*

*“Research organisation not prepared for”*

*“Database on invasive species”*

*“Poor monitoring of [these] species on the area which are already identified”*

**How to fill**

*“More awareness creation efforts, training and mobilisation of financial resources”*

*“Package the information”*

**d) Would you like to be involved in future work that we do on invasive plants?**

1. (No)

-

2. (Yes)

100%

If yes, please provide us with your contacts: (see appendix 1)

## Annex 5: Report to all delegates at the stakeholder workshop

### The growing threat of alien plants in Tanzania: Lessons from the Eastern Arc and beyond

Peacock Hotel, Dar es Salaam: 1 Feb 2008

#### Participating institutions

The workshop brought together 30 participants from the following institutions:

- Aberdeen University
- Community Conservation Films Project
- Division of Environment, VP's Office, Republic of Tanzania
- Eastern Arc Mountains Conservation Endowment Fund
- Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism
  - Amani Nature Reserve
  - Tanga Catchment Forestry
- National Centre for Advanced Bio-Protection Technologies, University of Lincoln New Zealand
- Plant Health Services, Ministry of Agriculture
- Sokoine University of Agriculture
- Tanzania Forest Conservation Group
- Tanzania Forestry Research Institute
- Tanzania National Parks
- Tropical Biology Association, UK and Kenya
- University of Dar es Salaam
- Wildlife Conservation Society of Tanzania
- World Wide Fund for Nature – Tanzania Programme Office

(**Apologies:** Conservation and Management of the Eastern Arc Mountain Forests Project, IUCN Tanzania Office, National Environment Management Council, and Tanzania Wildlife Research Institute)

#### List of presentations made

- Introduction to the problem of alien species and summary of the three year project's research in East Usambara,
- Summary of the project's capacity building activities and their outputs,
- The ecology and threat of alien plants in East Usambara,
- Population status and distribution of *Cordia alliodora* in Amani Nature Reserve
- The potential threat of *Castilla elastica* in East Usambaras
- Spread of *Cedrela odorata* and attitudes of local farmers
- Are forest boundaries of *Cedrela odorata* a threat in Uluguru Mountains?
- Results of a risk assessment of alien plant species in Ngorogoro Conservation Area
- Management and risks of alien plants in Saadani National Park

#### Outcomes of the workshop discussions

##### 1) Current level of management activities on invasive alien plants in Tanzania

The workshop listed the plant species that have been subject to some management activities. Aside from water hyacinth, there has been relatively little management of alien invasive plants in Tanzania. Management activities that have taken place have tended to be small in extent and, crucially, there has been little monitoring or publication of results.

## **2) How well do existing management plans cater for alien species management**

Several, though not all, management plans specify inventorying, control and monitoring as part of alien species management, while a few also advocate restoration. For example, TANAPA advocates removal of all alien species from protected areas, coupled with conducting monitoring programmes and restoration activities where necessary. Some management plans mention specific species (such as *Maesopsis emenii* and *Psidium cattelenium* in the ANR GMP, and *Senna spectabilis* in TANAPA) while others do not.

## **3) The main barriers and constraints to managing alien invasive plants in Tanzania**

The workshop identified the following key barriers that are hindering the effective management of invasive alien plants in Tanzania

- Insufficient knowledge and awareness of the threats and impacts of invasive plants at all levels (from institutional to local communities)
- Lack of understanding of appropriate technology and methods for control of aliens (especially concerning chemical control methods)
- Insufficient access to information on ecology of invasives as well as guidelines for their control
- Inadequate capacity (people and finances)
- Inadequate communication and sharing of information between the different sectors concerned with invasive alien plants
- Lack of national mainstreaming of acts and policies, etc. to cover all environments in Tanzania and existing legislation not always implemented

## **4) Recommendations to managers on the way forward to managing alien invasive plants in Tanzania**

### ***a) Effective legislation for the management of invasive species***

Management plans need to include adequate detail for the management and control of invasive species and existing legislation and management plans needs to be implemented.

### ***b) Raise awareness and build capacity among all stakeholders***

In order for this to be effective, players such as FBD, NGO's and Universities need to have sufficient understanding of alien invasive plants so that they can communicate clear messages. The outcome of awareness raising activities should include less planting of invasives near forest boundaries, a greater commitment of funds nationally and internationally to address the issue and a greater component of invasive species ecology and management in Tanzania's university curricula.

### ***c) Carry out capacity building activities in invasive plant risk assessment and management***

While the project made an important contribution to Tanzania's capacity research and manage invasive plants, capacity building activities are needed among managers from a wider sector.

### ***d) Establish pilot control studies into the effectiveness of different management methods and carry out long term monitoring of management interventions currently underway***

### ***e) Create a national database and network for sharing information on invasive alien species***

Information on the status of invasive species and their management is currently scattered among institutions and not readily available. Therefore, a national database is required that can be

accessed by all stakeholders. Surveys of the abundance and distribution of invasive species in less well known areas are required in order to assess their threat elsewhere in Tanzania.

***f) Promote and research the use of alternative, non invasive, species for agricultural and forestry activities and investigate the trade-offs between ecological impacts and economic impacts of invasive plants***

**5) Summary of statement made by Mr. Richard Muyungi, Acting Director, Division of Environment, Vice President's Office, Republic of Tanzania, focal contact for the CBD**

Mr. Muyungi

Acknowledged that by ratifying to the CBD Tanzania has in part committed "to strictly control the introduction of non-indigenous species" to Tanzania and as a focal point to the CBD, the Division of Environment takes great interest on issues of invasive alien plants.

Recognised that, as a country, Tanzania appreciates that invasive alien plants are a major threat to its rich biological resources and that the Darwin project addressed the limited national expertise and awareness to tackle the threats invasive species pose to Tanzania's environment.

Prevailed upon Tanzania's leaders to translate the project results to:

- continue to create awareness on this grave problem threatening our natural inheritance
- work towards developing programmes that go beyond the current project to ensure continued monitoring and ultimately management of invasive alien plants in this country
- strengthen the network of individuals and institutions already formed by this project so that they can be more effective in their work on tackling the risks invasive alien plants pose to our environment.

Announced that the Vice President's Office will continue to elaborate the relevant policies and build Tanzania's capacity for the implementation of the Environment Management Act. He noted that the Vice President's Office will take up the task of ensuring that recommendations from this project, as well as deliberations from the workshop discussions, are strategically applied in improving how they manage invasive alien plants, not only in the Eastern Arc region, but in Tanzania as a whole.

Thanked all institutions involved in this project including the Darwin Initiative of the British government for their good work.