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Rehabilitation in Subhumid areas

Shekhar Biswas - 17 March 2003 12:35

delay start discussion onhumid and sub-humid zones

Dineke Romeijn - 19 March 2003 09:37

- RE: [Humid] delay start discussion onhumid and sub-humid zones by Yapi, Atse (FAORAF) 19 March 2003 10:57

Themes for humid and sub-humid zones discussion

Dineke Romeijn - 27 March 2003 16:19

The E-discussion on the humid and sub-humid areas of Africa

Yapi, Atse (FAORAF) - 31 March 2003 11:48

- Re: The E-discussion on the humid and sub-humid areas of Africa by Peter Wood 31 March 2003 16:39

La Conférence électronique sur la dégradation des terres humides et sub-humides?

Yapi, Atse (FAORAF) - 31 March 2003 14:41

RE: [Humid] Re: The E-discussion on the humid and sub-humid areas of Africa

Yapi, Atse (FAORAF) - 2 April 2003 14:28

Humid/sub-humid zones: extent of deforestation/gedradation

Prof. Chamshama - 2 April 2003 15:06

Discussion paper: The Causes of Land Degradation in the Humid and sub-Humid Africa

Atse Yapi - 2 April 2003 15:20

- Re: Discussion paper: The Causes of Land Degradation in the Humid and sub-Humid Africa by Prof. Chamshama 2 April 2003 16:48

Discussion paper: The Consequences of Land Degradation in the Humid and sub-Humid Africa

Atse Yapi - 2 April 2003 15:21

Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa

Dominic Blay - 7 April 2003 15:46

- Re: Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa by Prof. Chamshama 9 April 2003 09:02
- Humid and sub-humid lands rehabilitation techniques by Ronald BELLEFONTAINE 15 April 2003 18:11
- Re: [Humid] Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa by Paul & Dineke Romeijn 18 April 2003 13:58

DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Dominic Blay - 7 April 2003 16:41

- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Mulugeta Lemenih Kassaye 10 April 2003 11:27
- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Angolo J. Obiri 11 April 2003 08:09
- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Martine Ngobo 11 April 2003 10:14
    - Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Prof. Chamshama 11 April 2003 08:41
    - Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Eshetu Yirdaw 14 April 2003 13:46

Re: Humid digest, Vol 1 #13 - 2 msgs

Dominic Blay - 11 April 2003 08:39

Re: Humid digest, Vol 1 #14 - 2 msgs

Dominic Blay - 11 April 2003 08:59

Re: [Humid] Re: DISCUSSION paper: PAFT for rehabilitation of degraded humid and sub-humid lands in Africa

Obed Kawanga - 11 April 2003 12:01

Re: Humid digest, Vol 1 #16 - 1 msg

Dominic Blay - 12 April 2003 16:34

Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14-19 April)

Shabani Chamshama - 15 April 2003 12:42

- Is rehabilitation of degraded lands receiving proper attention? by Edouard BONKOUNGOU 16 April 2003 11:41
    - Re: [Humid] Is rehabilitation of degraded lands receiving proper attention? by muhammad afzal chaudhry 21 April 2003 17:39
- Re: [Humid] Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14- 19 April) by Dr Donatien N'ZALA 23 April 2003 10:52

Rehabilitation of degraded humid and sub-humid lands

Dr Didier Lesueur - 17 April 2003 14:33

- Re: [Humid] Rehabilitation of degraded humid and sub-humid lands by muhammad afzal chaudhry 21 April 2003 17:34

synthesis of workshop recommendations

Dineke Romeijn - 4 September 2003 17:19

SYNTHESIS OF WORKSHOP RECOMMENDATIONS

Dineke Romeijn - 4 September 2003 17:22

initiative en environnement

=?iso-8859-1?Q?Fran=E7ois_ZONGO?= - 25 September 2003 11:12

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Welcome

Willemine Brinkman - 17 March 2003 12:39

Re: Welcome

Willemine Brinkman - 18 March 2003 14:53

- Apologies for test messages by Tsjebbe de Vries 2 April 2003 12:17
- Please let us know if your messages have not been posted! by Willemine Brinkman 2 April 2003 12:30

Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects

Ben Chikamai - 17 March 2003 13:57

- Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Mohamed ElFadl 18 March 2003 08:35
    - Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Ben Chikamai 19 March 2003 12:25
- Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Mulugeta Lemenih Kassaye 18 March 2003 09:42
    - Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Ben Chikamai 19 March 2003 12:42
- Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Dr. Zewge Teklehaimanot 19 March 2003 16:52
    - Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Atse Yapi 19 March 2003 16:55
        - Drylands by Z.Teklehaimanot 19 March 2003 17:26
        - Re: Drylands digest, Vol 1 #9 - 12 msgs by Dominic Blay 19 March 2003 17:26
        - Re: Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Mulugeta Lemenih Kassaye 20 March 2003 09:31
        - Re: Drylands by Mohamed ElFadl 20 March 2003 14:41
        - Re: [Drylands] Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Mulugeta Lemenih 20 March 2003 10:59
    - Re: Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Ben

Chikamai 20 March 2003 23:08

- Status of drylands / Les terres sèches? by Edouard BONKOUNGOU 21 March 2003 09:23

- Re: Current Status of Drylands in Sub-Saharan Africa& Economics by Mohamed ElFadl 20 March 2003 12:51
- RE: [Drylands] Re: Current Status of Drylands in Sub-Saharan Africa; Ecological Aspects by Godwin Kowero 20 March 2003 15:50
- DISCUSSION SUMMARY 17 - 21 March 2003 Ecological aspects of Current Status of Drylands in Sub-Saharan Africa by Jörn Laxen 26 March 2003 11:02
  - Re: [Drylands] DISCUSSION SUMMARY 17 - 21 March 2003 Ecological aspects of Current Status of Drylands in Sub-Saharan Africa by kefri 31 March 2003 08:21
  - Re: DISCUSSION SUMMARY 17 - 21 March 2003 Ecological aspects of Current Status of Drylands in Sub-Saharan Africa by Ronald Bellefontaine 2 April 2003 12:59
    - Re: Root suckers by Demel Teketay 2 April 2003 14:58
    - Re: Re: Root suckers by Angolo Obiri 4 April 2003 11:56
  - Theme 1 : ecological status of dry lands by Ronald BELLEFONTAINE 26 March 2003 18:53
- Drylands; Ecological Aspects; case study by Dineke Romeijn 27 March 2003 16:31

Economic aspects of land degradation

Elnour Abdalla Elsiddig - 18 March 2003 10:22

- Re: Economic aspects of land degradation by Jörn Laxen 20 March 2003 08:28
- Re: Economic aspects & Current Status of Dryalnd Degradation by Mohamed ElFadl 20 March 2003 13:15
- DISCUSSION SUMMARY WEEK 17 - 21 March 2003 THEME: Economic aspects of land degradation by Jörn Laxen 26 March 2003 12:59

Climatic trends

Frank Berninger - 19 March 2003 10:49

- Re: Climatic trends by Mohamed ElFadl 21 March 2003 16:43
- DISCUSSION SUMMARY WEEK 17 - 21 March 2003 THEME: Climatic trends by Jörn Laxen 26 March 2003 13:23

Status of drylands / Les terres sèches?

Edouard BONKOUNGOU - 21 March 2003 01:10

Discussion paper: sociological perspectives on Trees, Agroforestry and Climate Change in Dryland Africa

Alice Kaudia - 24 March 2003 13:10

- Re: Discussion paper: sociological perspectives on Trees, Agroforestry and Climate Change in Dryland Africa by Christian Held 25 March 2003 17:31
    - Re: [Drylands] Sociological approach in connection with forestry by Alice A. Kaudia 27 March 2003 14:49
        - Re: Re: [Drylands] Sociological approach in connection with forestry by Christian Held 28 March 2003 12:55
- Sociological approach in connection with forestry by Anu Eskonheimo 25 March 2003 07:53
    - Re: [Drylands] Sociological approach in connection with forestry by Alice A. Kaudia 26 March 2003 15:10
- RE: [Drylands] Discussion paper: sociological perspectives on Trees, Agroforestry and Climate Change in Dryland Africa by Godwin Kowero 26 March 2003 12:43
- DISCUSSION SUMMARY, WEEK 24 -28.03.2003: sociological perspectives on Trees, Agroforestry and Climate Change in Dryland Africa by Anu Eskonheimo 1 April 2003 14:37

CAUSES OF DRYLAND FOREST DEGRADATION

Demel Teketay - 25 March 2003 13:54

- RE: [Drylands] CAUSES OF DRYLAND FOREST DEGRADATION by Pasternak, Dov (ICRISAT-NIAMEY) 26 March 2003 08:42
    - Re: Causes of dryland forest degradation by Demel Teketay 26 March 2003 14:35
- [Drylands] CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA. by Yapi, Atse (FAORAF) 26 March 2003 18:11
- [Drylands] CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA. by Yapi, Atse (FAORAF) 26 March 2003 19:10
- Re: CAUSES OF DRYLAND FOREST DEGRADATION by Mulugeta Lemenih Kassaye 27 March 2003 09:29
    - Re: Causes of Dryland Forest Degradation by Demel Teketay 27 March 2003 14:04
- RE: [Drylands] Re: Causes of dryland forest degradation by Pasternak, Dov (ICRISAT-NIAMEY) 28 March 2003 10:00
    - RE: [Drylands] CAUSES OF DRYLAND FOREST DEGRADATION by Osman Hamdan 28 March 2003 15:42
- RE: [Drylands] CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA. by Pasternak, Dov (ICRISAT-NIAMEY) 1 April 2003 09:26
- DISCUSSION SUMMARY 2, WEEK 24-28.03.2003: CAUSES OF DRYLAND FOREST

DEGRADATION by Anu Eskonheimo 1 April 2003 13:44

- Re: Causes of dryland forest degradation by Demel Teketay 1 April 2003 22:39

- Re: Causes of dryland forest degradation by Demel Teketay 1 April 2003 22:05
  - Re: Re: Causes of dryland forest degradation by Eshetu Yirdaw 3 April 2003 16:00
- Re: CAUSES OF DRYLAND FOREST DEGRADATION by Angolo Obiri 2 April 2003 14:45
  - [Drylands] CAUSES OF DRYLAND FOREST DEGRADATION by M.Painton 2 April 2003 12:13
    - Re: Invasive species by Demel Teketay 2 April 2003 15:17
    - Re: [Drylands] Re: Invasive species by Amadou Male Kouyate 2 April 2003 15:34
    - Re: [Drylands] CAUSES OF DRYLAND FOREST DEGRADATION by Willemine Brinkman 4 April 2003 14:39
    - Re: [Drylands] CAUSES OF DRYLAND FOREST DEGRADATION by Ronald BELLEFONTAINE 4 April 2003 16:46
    - Degradation, causes and remedy by Ronald Bellefontaine 7 April 2003 11:25
- Drylands e conference by Ronald BELLEFONTAINE 31 March 2003 16:24
- Rootsuckers, Regeneration and Invasive Species in Drylands by Angolo J. Obiri 4 April 2003 11:07
  - Re: Root suckers, Soil seed banks & Invasive species by Demel Teketay 4 April 2003 20:29
  - Degradation, causes and remedy by Ronald BELLEFONTAINE 4 April 2003 16:06

CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA.

Bashir Jama - 26 March 2003 14:54

- Re: [Drylands] CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA. by Alice A. Kaudia 27 March 2003 19:57
- DISCUSSION SUMMARY, WEEK 24.-28.03.2003 CAUSES/DRIVERS OF DEGRADATION OF LAND AND FORESTS DRY LANDS OF SUB-SAHARAN AFRICA. by Anu Eskonheimo 1 April 2003 11:37

Launching the E-discussion on humid ansd sub-humid lands of Afric a

Yapi, Atse (FAORAF) - 31 March 2003 10:40

- [Drylands] Launching the E-discussion on humid ansd sub-humid lands of Afric a by Peter Wood 31 March 2003 12:32
- Re: Launching the E-discussion on humid ansd sub-humid lands of Afric a by Willemine Brinkman 31 March 2003 16:34
- Re: [Drylands] Launching the E-discussion on humid ansd sub-humid lands of Afric a by Prof. S.A.O. Chamshama 2 April 2003 11:29

Discussion paper: Impact of forest degradation on livelihoods

Elnour Elsiddig - 31 March 2003 11:17

- Re: Discussion paper: Impact of forest degradation on livelihoods by Mohamed ElFadl 31 March 2003 17:21
- Re: Discussion paper: Impact of forest degradation on livelihoods by Willemine Brinkman 4 April 2003 12:45

Discussion paper: PROGRESS IN SUPPORTIVE INTERNATIONAL POLICY, AGREEMENTS AND PRACTICE

Fredrick Owino - 1 April 2003 11:46

- RE: [Drylands] Discussion paper: PROGRESS IN SUPPORTIVE INTERNATIONAL POLICY, AGREEMENTS AND PRACTICE by Godwin Kowero 2 April 2003 15:48
    - Re: RE: [Drylands] Discussion paper: PROGRESS IN SUPPORTIVE INTERNATIONAL POLICY, AGREEMENTS AND PRACTICE by Fredrick Owino 3 April 2003 11:52

Discussion paper on sub-theme 'Review of national policies on drylands in Sub-Saharan Africa (SSA)'

Fredrick Owino - 2 April 2003 09:41

Question marks and solutions

Pasternak, Dov (ICRISAT-NIAMEY) - 7 April 2003 09:38

Forest plantations - potential underutilised?

Eshetu Yirdaw - 7 April 2003 12:42

land rehabilitation - FAO links

Willemine Brinkman - 8 April 2003 11:28

Discussion paper - week 7 - 11 April: Climate change, its impacts and carbon sequestration

Frank Berninger - 8 April 2003 11:30

- Re: [Drylands] Discussion paper - week 7 - 11 April: Climate change, its impacts and carbon sequestration by Amadou Kassambara 12 April 2003 14:32
- Re: Discussion paper - week 7 - 11 April: Climate change, its impacts and carbon sequestration by Ronald Bellefontaine 15 April 2003 15:29
- TOF by Ronald BELLEFONTAINE 15 April 2003 13:01
- Re: [Drylands] Discussion paper - week 7 - 11 April: Climate change, its impacts and carbon sequestration by Frank Berninger 16 April 2003 15:30
    - Re: [Drylands] Discussion paper - week 7 - 11 April: Climate change, its impacts and carbon sequestration by kassambara 16 April 2003 20:43

Restoration of "hardé" lands in the northern part of Cameroon

Oscar Eyog Matig - 9 April 2003 15:57

- Re: Restoration of "hardé" lands in the northern part of Cameroon? by Ben Chikamai 9 April 2003 07:47
- Re: [Drylands] Restoration of "hardé" lands in the northern part of Cameroon by Amadou Kassambara 11 April 2003 20:46
- Re:_[Drylands]_Restoration_of_"hardé"_lands_in_the_northern_part_of_Cameroon? by Edouard BONKOUNGOU 12 April 2003 11:20
- Re: Drylands] Restoration of "hardé" lands in the northern part of Cameroon? by Eyog-Matig, Oscar (IPGRI-Benin) 14 April 2003 18:44
    - Re: [Drylands] RE: restauration des terres hardé_au nord Camerou n by =?iso-8859-1?q?kassambara=20amadou?= 16 April 2003 20:30
    - RE: restauration des terres hardé_au nord Cameroun by Amadou Male Kouyate 18 April 2003 12:18
        - Re: [Drylands] Re: [Drylands] RE: restauration des terres hardé_au nord Camerou n by =?iso-8859-1?q?kassambara=20amadou?= 19 April 2003 13:45
- RE: [Drylands] Re: [Drylands] RE: restauration des terres hardé au nord Cameroun by Eyog-Matig, Oscar (IPGRI-Benin) 22 April 2003 11:25
    - RE: restauration des terres hardé au nord Cameroun by Amadou Male Kouyate 22 April 2003 15:09
        - RE: [Drylands] restauration_des_terres_hardé au_nord_Cameroun? by Eyog-Matig, Oscar (IPGRI-Benin) 22 April 2003 19:00

Discussion summary week 31.3-4 April 2003

Mohamed Elfadl - 11 April 2003 11:20

Discussion paper Theme V: Research, Development and Policy priorities

Peter Wood - 13 April 2003 16:06

- Research for drylands rehabilitation : priorities by Ronald BELLEFONTAINE 16 April 2003 10:43
    - RE: [Drylands] Research for drylands rehabilitation : priorities by Eyog-Matig, Oscar (IPGRI-Benin) 16 April 2003 18:26
- Why not investigate suckering and layering in dry climatic zones? by Ronald BELLEFONTAINE 18 April 2003 17:06
    - Re: [Drylands] Why not investigate suckering and layering in dry climatic zones? by muhammad afzal chaudhry 21 April 2003 17:47

The hidden potentials

Mohamed ElFadl - 15 April 2003 17:50

- Re: [Drylands] The hidden potentials by Edouard BONKOUNGOU 16 April 2003 15:10

Contribution to DRYLANDS discussion

Didier Lesueur - 17 April 2003 14:32

DISCUSSION SUMMARY OF WEEK 15 (7-11 April)

Jörn Laxen - 18 April 2003 13:31

CASE STUDY Material presented in week 7 - 11 April 2003

Jörn Laxen - 18 April 2003 13:33

Prosopis - impact dichotomy

Eshetu Yirdaw - 22 April 2003 14:00

follow-up workshop in Nairobi 2-6 June

Willemine Brinkman - 25 April 2003 17:46

- Re: interesting study, plus follow-up workshop date and venue changed by Willemine Brinkman 6 June 2003 15:12

Discussion SUMMARY weeks 14 - 25 April

Peter Wood - 2 May 2003 10:45

copies of ETFRN news

=?iso-8859-1?q?Noubissi=E9=20Jean=20Baptiste?= - 24 July 2003 21:27

Synthesis of workshop recommendations

Dineke Romeijn - 4 September 2003 17:17

SYNTHESIS OF WORKSHOP RECOMMENDATIONS

Dineke Romeijn - 4 September 2003 17:22

Acknowledgement for TACCDA workshop

=?iso-8859-1?q?Noubissi=E9=20Jean=20Baptiste?= - 6 September 2003 20:33

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Rehabilitation in Subhumid areas

Shekhar Biswas - 17 March 2003 12:35

In the northern side of Bangladesh water table is too low, and there are huge mortality of sisso (Dalbergia sissoo). Which here called massive mortality. Is there any evidence else where in the world like this?

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RE: [Humid] delay start discussion onhumid and sub-humid zones

Yapi, Atse (FAORAF) - 19 March 2003 10:57

Dear Dineke,

Thanks for this announcement. We will make sure that all is in place for the discussion on the humid and sub-humid ecosystems to start indeed on March 31, 2003 as now planned.

Best regards to all,
Atse Yapi
IUFRO-SPDC DCA
and FORNESSA Secretary

-----Original Message-----
From: Dineke Romeijn [mailto:info@treemail.nl]
Sent: 19 March 2003 08:38
To: humid@antenna.etfrn.org
Subject: [Humid] delay start discussion onhumid and sub-humid zones

Dear participants,

The drylans discussion has started succesfully on monday the 17th.

However, the discussion on humid and sub-humid zones will start later, on March 31, due to organisational reasons.

Please do not send messages for the humid zones discussion until you have received the welcome message for that discussion.

For participants of both discussions: please do keep sending us your messages for the drylands discussion!

Kind regards
Dineke Romeijn
ETFRN wbmaster

For more information on this discussion, please visit the website:
http://www.etfrn.org/etfrn/workshop/degradedlands/index.html

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ETFRN: http://www.etfrn.org/etfrn
Antenna: http:www.antenna.nl

Themes for humid and sub-humid zones discussion

Dineke Romeijn - 27 March 2003 16:19

Dear participants,

The themes for the discussion on rehabilitation of degraded lands in humid and sub-humid zones in sub-Sahara Africa, starting monday 31 March, are:

SECTION I:
Extent, Causes and Consequences of Lands Degradation in Humid and sub-humid Zones of Sub-Saharan Africa (31 March-5 April)

* Extent (available regional, sub-regional and national statistics);

* Direct and indirect causes (human, natural, economic, others);

* Consequences (economic, social, environmental, political, and others).

Section I Moderator: Atse M. Yapi, IUFRO-SPDC, Accra, Ghana

SECTION II:
Humid and sub-Humid Lands Rehabilitation Efforts and Techniques and Factors for Success/Failure (7 - 12 April)

* Case studies on rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa (effort defined in % of total degraded land area);

*Drivers of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Section II Moderator: Dominic Blay, FORIG, Kumasi, Ghana

SECTION III:
Major Constraints; and Research, Development and Policy Recommendations (14- 19 April)

* Majors constraints to rehabilitation of humid and sub-humid lands in SSA (discussions should be illustrated by information from real country case studies; and constraints should wide open, including policy, political, social, economic, legislative, technical, and institutional);

* Possible recommendations for forest management and development;

* Possible recommendations for research;

* Possible recommendations for forest policy formulation and implementation;

* Possible recommendations for forest institutional and legislative reforms.

Section III Moderator: Prof. A.S. Chamshama, Sokoine University of Agriculture (Tanzania, United Republic of)

They are also available on the website:
http://www.etfrn.org/etfrn/workshop/degradedlands/index.html

Under: Humid and sub-humid land ecosystems themes

On this page you will also find links to the background papers in English and a French summary of these.

Dineke Romeijn
ETFRN webmaster

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The E-discussion on the humid and sub-humid areas of Africa

Yapi, Atse (FAORAF) - 31 March 2003 11:48

Dear Colleagues,

I wish to welcome you all at the e-discussion on the humid and sub-humid lands ecosystems of sub-Saharan Africa. I trust that you have read both background papers on the topic, as well as other documentations including the suggested discussion programme, available on the web site for the e-conference; and that you will find a way to contribute to the discussions on this second thread as you are currently doing for the first thread on the dry lands.

As indicated on the programme for the discussion, the first week (31 March-5 April 2003) will be devoted to discussing the extent, causes and consequences of lands degradation in the humid and sub-humid zones of sub-Saharan Africa. With this first introductory note, we would like to invite you to focus our discussions on the extent of land degradation in humid and sub-humid lands of sub-Saharan Africa. Later on in the week, we will focus on the causes and consequences of land degradation in humid and sub-humid lands of the region.

It is generally believed that except for the Congo Basin, Africa's humid forests have been seriously destroyed; that the rainforests of West Africa are disappearing at a rate of some 5% annually; and that nearly 90% of the original moist forests are gone, and that what remains is heavily fragmented and degraded. Dr. Blay, in his background Paper on the humid lands, stated that in the 1980s, Africa lost an estimated 47 million hectares of forest, and that by 1995, another 19 million hectares had been lost, an area the size of Senegal. The lost has been spectacular in West Africa as the West African unspoiled forests are said to be restricted to one patch in Côte d'Ivoire and another along the border between Nigeria and Cameroon. Prof. Chamshama, in his background Paper on the sub-humid lands, also stated that although land degradation occurs worldwide, the phenomenon is more acute in Africa. Most authors addressing the problem have spoken in general terms, and sometimes with estimates which are variable due probably to differences in concepts and classifications on forest resources, definition of deforestation and inventory techniques. For example, Chamshama in his background Paper quoted FAO (1995) as saying that during the 1980s global forest, woodland and scrub declined by 2% with 11 million hectares of tropical forest being cleared annually. However, studies by Raymond et al (1994) estimate deforestation rates in the tropics at 17 to 20 million hectares annually, with 20% of Africa's productive tropical forests logged

over by 1985, whereas in Asia et Latin America, the figures were 19% and 9% respectively.

Do you agree with these alarming global statistics on the extent of deforestation and land degradation in the humid and sub-humid areas of Africa? Is the situation in your individual countries that bad? What are the official figures in your individual countries?

If the situation is as bad as depicted above, then individual countries of humid an sub-humid Africa, ought to be up doing or planning to do something about it, either nationally and/or regionally. Is that the case in your countries of activity and experience?

The other issue is about desertification, which tends to be regarded as a (semi-) arid lands phenomenon. Are humid and sub-humid lands at all concerned with desertification? Or is desertification such a long run phenomenon in these areas that it is of no urgency now? Please let's hear from you on these and other important questions on the extent of land degradation in Africa's humid and sub-humid zones.

Best regards,

PS: A french version of this note will follow shortly,

Atse M. Yapi
IUFRO-SPDC Deputy Coordinator for Africa
And FORNESSA Secretary
C/O FAO Regional Office for Africa
Box 1628 Accra, Ghana
Tel: 233-21-675000 Ext.3195
Fax: 233-21-668427
E-mail: Atse.Yapi@fao.org

Reply to this

- Re: The E-discussion on the humid and sub-humid areas of Africa by Peter Wood

  31 March 2003 16:39

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Re: The E-discussion on the humid and sub-humid areas of Africa

Peter Wood - 31 March 2003 16:39

Dear colleagues

Dr Atse Yapi has provided a splendid guide for discussion. From our background papers the question of how to define degradation is clearly not an easy one. FAO has given, as usual, realistic and usable definitions. But logged over forest is not necessarily destroyed forest. And how do we define cleared humid forest land which has subsequently been planted with oil palm, cacao, rubber?

>From the viewpoint of the first half of the discussion, extent of land degradation, maybe we could consider some or all of the following points

Is our main concern forest biodiversity, is it forest cover, or is it ecosystems?

The future of Africa's forests is only marginally in the hands of foresters

Most deforestation is a result of agricultural expansion. How do the Agriculturists classify forest lands and their extent? Look, for example at the FAO land use classification of most of the miombo woodlands of Zambia

Much forest has been conserved because of disease, both of human beings and domestic animals. Examples include the Tsetse zones of the Tanzanian miombo and the dense humid forests of Gabon.

The dynamics of forest cover, particularly in transition zones as in West Africa, are complex. Mosaics of forest patches have been studied in the Guinea Zone for instance, showing that discontinuous forest can be a stable vegetation type. How to classify such lands?

Best wishes to all

Peter Wood
pjwood2@compuserve.com

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La Conférence électronique sur la dégradation des terres humides et sub-humides?

Yapi, Atse (FAORAF) - 31 March 2003 14:41

Chers Collègues,

Soyez les bienvenus à la deuxième branche de la Conférence électronique en cours. La première branche sur les terres sèches a débuté depuis le 17 mars 2003 et prendra fin the 11 avril. Cette deuxième branche, qui porte sur les terres humides et sub-humides d'Afrique, commence aujourd'hui 31 mars 2003 pour finir le 19 avril. J'ose croire que vous y contribuerez autant que vous l'avez fait pour les terres sèches.

Comme indiqué au programme diffusé de la Conférence, la première semaine (31 mars-5 avril 2003) sera dévolue à la discussion sur l'étendue, les causes et conséquences de la dégradation des terres humides et sub-humides d'Afrique sub-Saharienne. Dans cette première note introductive, nous aimerions vous inviter à une discussion concentrée sur l'étendue/l'importance de la dégradation des terres humides et sub-humides d'Afrique sub-Saharienne. Plus tard dans la semaine, nous reviendrons sur les causes et conséquences de la dégradation des terres humides et sub-humides d'Afrique.

Il est généralement admis qu'à l'exception des forêts du Basin du Congo, toutes les forêts humides et sub-humides d'Afrique ont été sérieusement détruites ; et qu'en Afrique Occidentale, les forêts denses disparaissent à un taux environnant les 5% annuellement. Il est aussi admis que presque 90% des forêts vierges d'Afrique de l'Ouest ont disparu définitivement, et que ce qui reste de ces forêts primaires est lourdement fragmenté et dégradé. Dr. Blay, dans son document de base sur la dégradation des terres humides d'Afrique a indiqué que dans les années 80, l'Afrique a perdu 47 million d'hectares de sa forêt dense et que vers 1995, 19 million d'hectares additionnels de forêts, soit la taille du Sénégal, ont été perdus également. Les pertes ont été particulièrement spectaculaires en d'Afrique de l'Ouest où les forêts vierges ne sont réduites maintenant qu'à une tranchée en Côte d'Ivoire et une autre le long de la frontière entre le Nigeria et le Cameroun. Le Prof. Chamshama, dans son document de base sur les terres sub-humides, a également indiqué que bien que le problème de la dégradation des terres soit mondial, le phénomène est beaucoup plus prononcé en Afrique. La plus part des auteurs qui se sont adressés à la question ont parlé en des termes généraux, et même quelquefois avec des estimations variables dues certainement à la différence entre les concepts et classifications sur les ressources forestières, la définition de la déforestation et des techniques d'inventaires. Par exemple, Chamshama a cité la FAO (1995) disant que dans les années 1980, au niveau mondial, les forêts denses, boisées et arbustives

ont été réduites de 2%, avec près de 11 million d'hectares de forêts tropicales détruites annuellement. Cependant, des études par Raymond et al. (1994) estiment que les taux de déforestation dans les tropiques sont de l'ordre de 17 à 20 million d'hectares par an, avec 20% de la forêt productive d'Afrique totalement soumise à l'exploitation de grumes en 1985, alors qu'en Asie et en Amérique Latine, les estimations sont de 19% et 9%, respectivement.

Partagez-vous cette image alarmante qui émane des statistiques globales ci-dessus sur l'étendue/importance du problème de la déforestation et de la dégradation des terres dans les zones humides et sub-humides d'Afrique? La situation dans vos pays respectifs, est-elle aussi alarmante que celle que nous donnent les statistiques globales? Quelles sont les statistiques officielles dans vos pays individuels d'activités?

Si la situation est la même que celle globalement décrite par les statistiques ci-dessus, alors les Etats d'Afrique dans les zones humides et semi-humides se doivent de faire ou se préparer à faire quelque chose soit individuellement soit régionalement pour remédier à la situation. Est-ce cela le cas dans votre pays d'activités ou d'expérience ?

L'autre question concerne la désertification, qui tend à être considérer comme un phénomène exclusif des zones (semi-) arides. Les terres humides et sub-humides, sont-elles aussi concernées par la question de la désertification ? La désertification, est-elle dans les zones humides et sub-humides un phénomène de si long terme qu'il s'avère sans urgence pour le moment ? Prière de nous faire part de vos réflexions sur les questions ci-dessus posées et d'autres encore relatives à l'importance/étendue du phénomène de la dégradation des terres humides et sub-humides d'Afrique sub-Saharienne.

Meilleures salutations,

Atse M. Yapi
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Et Secrétaire de FORNESSA
S/C FAO, Bureau Régional pour l'Afrique
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RE: [Humid] Re: The E-discussion on the humid and sub-humid areas of Africa

Yapi, Atse (FAORAF) - 2 April 2003 14:28

Dear Colleagues,

Since Sir Peter Wood's response to the discussion note for the (sub-)humid lands, everyone has been quiet. Peter's remarks are very pertinent and I was hoping that they would stimulate a lively discussion; but it does seem to go that way, which is quite surprising to me. Is it that land degradation is of no problem for (sub-)humid areas of sub-Saharan Africa? Or is it that the points raised by Peter were too deep to be responded to without deep thinking? Let's take these issues one at a think through them once again:

1) Is our concern, in looking at land degradation, forest biodiversity, is it forest cover, or is it ecosystems?
2) Are logged over forests degraded/destroyed forests?
3) How do we define cleared humid forestland, which has subsequently been planted with oil palm, cocoa and rubber?
4) Should Agriculturists look at the extend of land degradation the same way as do foresters?

These are important questions which need to be addressed in any fruitful assessment and analysis of the extent, causes and consequences of land degradation in (sub-)humid areas of sub-Saharan Africa.

By the way the discussion notes on the causes and consequences of land degradation in (sub-)humid areas of sub-Saharan Africa are now available on the (sub-)humid land areas discussion website. Let's focus on these for the rest of this week. We look forward to hearing from you all.

Best regards,
Atse M. Yapi
IUFRO-SPDC Deputy Coordinator for Africa
and FORNESSA Secretary

-----Original Message-----
From: Peter Wood [mailto:pjwood2@compuserve.com]
Sent: 31 March 2003 14:39
To: humid@antenna.etfrn.org
Subject: [Humid] Re: The E-discussion on the humid and sub-humid areas of Africa

Dear colleagues

Dr Atse Yapi has provided a splendid guide for discussion. From our background papers the question of how to define degradation is clearly not an easy one. FAO has given, as usual, realistic and usable definitions. But logged over forest is not necessarily destroyed forest. And how do we define cleared humid forest land which has subsequently been planted with oil palm, cacao, rubber?

>From the viewpoint of the first half of the discussion, extent of land degradation, maybe we could consider some or all of the following points

Is our main concern forest biodiversity, is it forest cover, or is it ecosystems?

The future of Africa's forests is only marginally in the hands of foresters

Most deforestation is a result of agricultural expansion. How do the Agriculturists classify forest lands and their extent? Look, for example at the FAO land use classification of most of the miombo woodlands of Zambia

Much forest has been conserved because of disease, both of human beings and domestic animals. Examples include the Tsetse zones of the Tanzanian miombo and the dense humid forests of Gabon.

The dynamics of forest cover, particularly in transition zones as in West Africa, are complex. Mosaics of forest patches have been studied in the Guinea Zone for instance, showing that discontinuous forest can be a stable vegetation type. How to classify such lands?

Best wishes to all

Peter Wood
pjwood2@compuserve.com

For more information on this discussion, please visit the website:
http://www.etfrn.org/etfrn/workshop/degradedlands/index.html

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ETFRN: http://www.etfrn.org/etfrn
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For questions, please contact the ETFRN Coordination Unit at:
ETFRN.Tropenbos@wur.nl

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Humid/sub-humid zones: extent of deforestation/gedradation

Prof. Chamshama - 2 April 2003 15:06

I wish to respond to some of the issues raised by Dr. Atse Yapi as follows:
1. For many years, the deforestation rate in Tanzania has been estimated at 130,000-500000 ha per year (MNRT 1998). The official figure is now 91,000 ha per year. This is the average deforestation rate for all the forest types in Tanzania. However the dominant vegetation is the Miombo woodlands.
2. Tanzania is one of the countries that has ratified the desertification convention. Tanzania is concerned with desertification. There are some semi-arid areas threatened with deforestation due to various causes.
3. There are various efforts towards rehabilitating degraded lands as indicated in the case studies for the sub-humid lands. Also because of contracted capacity of the government to manage forest resources, resulting in deforestation and land degradation, the revised forest policy (MNRT 1998) encourages stakeholder involvement in management of forest resources. Forest policy statement 3 for example states: "to enable participation of all stakeholders in forest management and conservation, joint management agreements, with appropriate user rights and benefits, will be established. The agreement will be between the central government, specialised executive agencies, private sector or local governments, as appropriate in each case, and organised local communities or other organisations of people living adjacent to the forest. There are already several pilot projects on JFM and the results are so far encouraging.

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Discussion paper: The Causes of Land Degradation in the Humid and sub-Humid Africa

Atse Yapi - 2 April 2003 15:20

During our discussion on the Extent of humid and sub-humid lands degradation in Africa, Sir Peter Wood has asked the question of how to define degradation, and raised a number of important issues, which I think should be kept in mind as we embark now on discussing the causes of land degradation in humid and sub-humid areas of Africa. Here are some of the issues he raised:

1. Is our concern, in looking at land degradation, forest biodiversity, is it forest cover, or is it ecosystems?
2. Logged over forest is not necessarily destroyed forest.
3. How do we define cleared humid forestland, which has subsequently been planted with oil palm, cocoa and rubber?

These issues are important, because they have a strong bearing on what and where we should look for causes of land degradation. For example, if logged over forests are not to be considered as degraded land; and if forests cleared for cocoa, coffee, rubber and oil palm plantations are not to be seen as degraded lands, then we have our work well cut out for us, as the search for land degradation causes becomes much focused.

On the other hand, if we consider land degradation as a process, which often times starts with logging activities and forest land conversion into alternative land uses, which in turn open the way for further abuses such as overgrazing and unsustainable farming practices, then we may be right in enlarging the scope of our search for causes of land degradation. Nevertheless, we should avoid generalizations that for example systematically link logging and humid forestland conversion to land degradation. We should endeavor to share our experiences from our individual countries of activity as to the circumstances under which a particular action, policy or phenomenon led to land degradation. The case of la Côte d'Ivoire (Ivory Coast) is an outstanding example. It is true that the humid forest land in that country has heavily been logged over and converted into cocoa, coffee and now rubber plantation. But it is now clear whether under these alternative uses, the land should be considered degraded.

Most deforestation results from agricultural expansion, and it would indeed be interesting to know how Agriculturists look at forestlands degradation and their extent.

In the light of the above concerns, let's hear from you on the causes of land degradation in humid and sub-humid Africa.

Atse Yapi

Reply to this

- Re: Discussion paper: The Causes of Land Degradation in the Humid and sub-Humid Africa by Prof. Chamshama 2 April 2003 16:48

Re: Discussion paper: The Causes of Land Degradation in the Humid and sub-Humid Africa

Prof. Chamshama - 2 April 2003 16:48

Dear Colleagues,
I wish to respond to Sir Peter Wood's and Dr. Yapi's comments as follows:
1. The FAO defines deforestation as loss of forest cover without regard to loss of various kinds of forest attributes such as density, structure and species composition as pointed out e.g. by Saharjo (1994). This brings us to Sir Peter Wood's comment as to whether our concen should be forest biodiversity, forest cover or ecosystems. Since the major objective of restoration/rehabilitation is to restore species composition, structure and function prior to degradation, our concern should be the degree to which the ecosystem functions have been disrupted.
2. I agree that a logged over forest is not necessarily destroyed/degraded. This also has to do with the function. Has the logging resulted in soil compaction or erosion? If so then ecosystem functions have been affected, even though the species structure or compositon may not have changed significantly.
3.How do we define a humid forest that is now planted with oil palm, cocoa or rubber? We all should agree that the forest was deforested during the conversion to alternative land use systems. The issue at hand is are these alternative land use systems sustainable? Is there land degradation? If yes then the rehabiltation strategy would be intervations that would improve soil conservation (soil erosion control and enhancement of soil fertility). This is I think outside our focus.
Regards,
SAO Chamshama

Reference:
Saharjo,B.H. 1994. Deforestation with reference to Indonesia. Wallaceana 73: 7-12.

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Discussion paper: The Consequences of Land Degradation in the Humid and sub-Humid Africa

Atse Yapi - 2 April 2003 15:21

Prof. Chamshama in his Background Paper on the sub-humid lands summarized the consequences of land degradation in the following terms: “The rehabilitation of degraded lands is a subject that is receiving attention in many parts of the world, especially in SSA. The reason for such interest include dwindling or disappearance of forest cover, environmental problems, scarcity of forest products, pressures on remnant natural forests, large areas of potentially productive lands languishing in a highly degraded state or decreased production from the land, decreased infiltration and water retention capacity, increased runoff and disrupted hydrological cycles (floods and water shortages), increased sediment transport and water pollution, siltation of dams and destruction of coastal and marine environments, increased inequality of access to resources, poverty, hunger, social unrest and famine (Rocheleau et al., 1988; Lundgren and Taylor, 1993; Rowe et al. 1994; Barraclough and Ghimire, 1996; Ayoub, 1998; INFORSE, 1998; Salami, 1998; Montagnini, 2000).”

Forests indeed play important roles in many African countries. These roles include biodiversity conservation, provision of non-timber forest products (NTFP), enhancement of cultural values, preservation of ecological functions, as well as economic and social services. With degradation, these functions are seriously impaired, threatening both the environment and human welfare.

It has been estimated that globally at least 25 mill. t of soil is lost per year in erosion (Dover and Talbot, 1987). The FAO projected a global loss of productivity of rain fed cropland of 29% for the period 1975-2000 (FAO, 1984). On per capita basis, Brown and Wolf (1984) estimated a global decline of cropland per person of 19% between 1984 and 2000 and a decline in top soil of 32% per person which is a good indication that the process of soil loss would eventually undermine the world economy if not prevented.

How is the specific situation of sub-Saharan Africa? Drawing on the experiences from individual countries in Africa, let’s bring out the major consequences of land degradation as currently experienced by the millions whose livelihood depends so much on the humid and sub-humid forests and forest resources. What about climate change in relationship to land degradation? What about the problem of green house effects? Let’s discuss how these relate to land degradation and how the people and the governments in Africa feel about these problems in relation to land degradation and their rehabilitation.

Atse Yapi

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Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa

Dominic Blay - 7 April 2003 15:46

THEME: Humid and sub-Humid Lands Rehabilitation Efforts and Techniques and Factors for Success/Failure

DISCUSSION PAPER: Case studies on rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa

By DOMINIC BLAY
dblay@forig.org

Introduction
The rehabilitation of degraded forest land is required at sites where mismanagement has led to the total replacement of forest ecosystems by grassland, bushland or barren soil. Characteristics of degraded forest lands include low soil fertility and poor soil structure (soil compaction, waterlogging, salinization or other physical and chemical limitations), soil erosion, recurrent fire and increased susceptibility to fire, the absence of fungal or root symbionts, a lack of suitable micro-habitants for seed germination and establishment, and severe competition with other plant forms, especially grasses and ferns. The rehabilitation of such degraded land aims to re-establish the production and protection functions of a forest or woodland ecosystem.

The first consideration in attempting any recovery of degraded forest land is to understand the processes and underlying causes leading to degradation (the ‘stress’ factors) and then to try to remove or correct them. Since the causes of degradation often involve socio-economic factors, local needs and the value systems of local actors need to be considered. The nature of tenure and access rights to resources by different sectors of society will also be important.

MANAGEMENT STRATEGIES
The four basic questions for determining the management strategy for degraded and secondary forests

1. What are the present stand and site conditions?
2. What are the stand and site histories?
3. How would the site develop in the absence of planned management interventions?
4. What management strategies are needed to achieve a particular outcome (restoration, secondary forest management, rehabilitation)?

The technique selected ultimately depend on the priorities and objectives of stakeholders, the costs and benefits associated with the techniques, and the economic, social, and environmental values of these land resources in their current and desired future states.

Natural Succession;
Remnant trees and planting patches of trees:
Remnant trees play a critical role in natural forest recovery by increasing seed dispersal, ameliorating microclimatic conditions, and increasing soil nutrients. Leaving some seed trees in areas that are logged and

planting or maintaining trees in agricultural lands should be encouraged both to improve the quality of the habitat while the land is used for agriculture and to facilitate recovery if the land is abandoned. The importance of isolated trees and patches of trees for facilitating seed dispersal and seedling establishment suggests that planting patches of trees may be a cost-efficient method of facilitating recovery. It may also provide a level of spatial diversity characteristics of the ecosystem.

Seedling shrubs: naturally colonizing shrubs may play a critical role in improving adverse conditions and aiding succession in abandoned tropical pastures. Seeding early-successional shrubs may be an inexpensive strategy to accelerate recovery in regions where shrubs facilitate tree seedling establishment; unlike most tree species, many shrubs produce copious, easily-collected seeds all year round (e.g. Lantana spp, Solanum spp, Grevillea banksii, etc.). Care is required as these species can easily become dominant and can hamper the establishment of other desired species. It is better to avoid introducing seeding shrubs that have little socio-economic value.

Enrichment planting;
Enrichment planting has commonly been used for the restoration of logged primary forests and for increasing the wood volume and economic value of secondary forests. The experience with enrichment plantings in secondary forests has generally been more favourable than when applied in primary/logged-over forests. The success of enrichment plantings has been variable and its efficacy questioned and the use of this silvicultural option has declined in the tropics. Some of the reasons cited include: planting work is difficult to supervise; seedlings have to be regularly released from regrowth; a regular supply of seedlings is needed; and it is costly (labour-demanding). In general, failures are attributed mainly to the poor selection of species and/or the lack of adherence to sound planting and tending practices. In tropical America, the poor reputation and expensive failures associated with enrichment planting are largely attributable to the improper selection of planting stock, insufficient overstorey opening prior to planting, insufficient follow-up tending, and pest attack.

There are, however, biological, environmental and economic arguments in favour of enrichment planting. When compared to other artificial regeneration systems, enrichment planting has the advantages of mimicking natural gap dynamics and protecting the soil by maintaining vegetation on site. Necessary conditions for successful enrichment planting include the provision of adequate light conditions, proper supervision, and follow-up maintenance (especially canopy-opening treatments).

Plantations;
Planting native tree seedlings: the most commonly used strategy for accelerating tropical forest succession is planting seedlings of a few native tree species that are fast-growing, drought resistant and able to grow in low-nutrient soils. Direct seeding may be a viable option, but weed invasion and predation rates are often sufficiently high to preclude this option.,
Planting non-native tree seedlings as nurse trees: tree plantations may help to shade out aggressive pasture grasses, increase nutrient levels and enhance seed dispersal while also providing a source of income to landowners. The use of non-native trees as nurse species should be considered carefully with regards to their aggressiveness, and their potential to spread and to alter soil chemistry.
Establishing vegetation: establishing vegetation that shades out grasses has generally proven to be the most economically and ecologically effective strategy. The initial cleaning of vegetation to facilitate establishment during the first year of seedling growth may be important. This is effective only if followed by other silvicultural treatments (planting or direct seeding).

Agroforestry planting.
Rehabilitating degraded through agroforestry involves two stages. In the first stage, trees (including at least some nitrogen fixing species) are planted on degraded forest land with the objective of checking further erosion and restoring soil organic matter and fertility status and in the second stage, the cover is selectively removed and agricultural production introduced.

Assisted Natural Regeneration
An alternative approach to the restoration of native forest is to accelerate regeneration by assisting the natural processes of succession. There, ANR methods include cutting or pressing the weeds around existing naturally established seedlings, protecting the area from fire and interplanting with desired species if necessary. ANR as explained here differs from 'natural regeneration' which allows some human intervention but precludes tree planting.
Fire prevention:
An essential component of any tropical forest restoration effort in areas with extended dry seasons is fire prevention. This can be done by patrolling areas susceptible to burns and educating landowners on the risk of burning at dry times of the year.

EFFORTS MADE AT REHABILITATION.
Efforts made at rehabilitation are country specific have not much been documented. The only available information is FAO information on plantations that have been established in the different humid and sub –humid countries (FAO 2000). (NOTE: A table giving information on forest plantation area is presented in the version of the discussion paper which can be downloaded from the workshop website) There are however no indications on whether these plantations were established to rehabilitate degraded land or for other purposes.

QUESTIONS TO BE DISCUSSED
What other management strategies are available for rehabilitating degraded lands in Sub-humid and Humid africa?
What management strategies have been used in rehabilitating degraded lands ?
What prompted the use of the particular strategies?Were they successful ? if not Why?
What efforts have been made in efforts at rehabilitation in the different countries ?

Reply to this

- Re: Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa by Prof. Chamshama 9 April 2003 09:02
- Humid and sub-humid lands rehabilitation techniques by Ronald BELLEFONTAINE
  15 April 2003 18:11
- Re: [Humid] Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa by Paul & Dineke Romeijn 18 April 2003 13:58

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Re: Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa

Prof. Chamshama - 9 April 2003 09:02

Thanks Blay for the aspects discussed you have discussed as an introduction to theme III. I wish to respond to some of the questions raised as follows:
1. Other management strategies: One management strategy especially important in the miombo and discussed in the sub-humid background paper is the use of fire. Fire is a major ecological factor in the miombo and its effects on the vegetation depends on the timing. Studies have shown that While late and hot burns are destructive, early burning can be used as a management tool as the best way to protect and manage the miombo.
2. In Tanzania, natural regeneration, agroforestry and woodlot planting have been the major rehabiliattion techniques. In Shinyanga, Tanzania, using natural regenaration and a traditional method of rehabilitation called ngitili (discussed in the sub-humid case studies), over 320000 ha have been rehabilitated. Infact the project called HASHI is one of the projects that received prices during the earth summit in S.Africa for the success in involving communities and using cost effective techniques in land rehabilitation.
3. What prompted the use of the particular strategies: The HASHI project for example started initially with tree panting as a strategy to land land rehabilitation. This did not work due to among others poor species choice, termite attacks, trampling by animals etc.
4. Efforts made towards rehabilitation in the various countries: There are several rehabilitation projects in various parts of the country among these are: HASHI(a swahili acronym meaning Shinyanga land rehabilitation project), Land management programme in Arusha region, Soil erosion and Agroforestry project in Lushoto district, Soil erosion control and agroforestry project in Arusha and JFM in Arusha and Iringa regions.

Regards,
SAO Chamshama

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Humid and sub-humid lands rehabilitation techniques

Ronald BELLEFONTAINE - 15 April 2003 18:11

What other management strategies are available for rehabiliting degraded lands in Sub-humid and Humid Africa ? (D. Blay 's question)

Can I add to the D. Blay's list the INDUCED vegetative multiplication by branch layering (for bushes or little trees) or by root sucker (for trees) (and by sprouting from the stump, of course) especially with nitrogen fixing trees? These are economically viable methods but only for little stands (grassland or barren soils with resilient woody vegetation, bushland, trees outside forest like fruit-tree meadows, riparian buffers, ...) and preferentially in drylands (see please my different messages in 'Drylands e discussion').

The phenomenon of layering and suckering can be also used in certain woodlands as methods of maintaining or changing the dynamics of an ecosystem to satisfy some of the ecological, economical, social and cultural needs. For example, suckering has been used to improve the temperate wildlife habitat at the same time providing for ecotourism. Various exogenous factors influence suckering, for example apical dominance suppression, period since being cut, competition for light, ground cover, with or without slashes, fire, etc. This phenomenon occurs (mainly in dry zones) on certain sites such as clearings, well exposed dawn slope areas, or submerged soils which have good drainage, when for example the reserved carbohydrates (Clair-Maczulajtys 1986) are high either in the root collar, or in the primary root system. In West Africa (up to mean annual rainfall > 1000 mm), 115 indigenous or naturalised woody plant species produce suckers (Bellefontaine et al. 1999), but a few appear to produce air-layering naturally (Ichaou 2000; Karim et al. 2002).

Many authors consider plants propagated from segments of roots planted in a medium either horizontally or vertically, as suckers. These are not suckers in the real sense, but root-cuttings. The technique allows for the propagation of a clone irrespective of any particular difficulties related to individual species. In the temperate zone, some authors carried out some work on root segments (mainly for fruit trees). What about tropical timber trees ?

The use of fire (and the subsequent heat that it will generate) in tree stands of temperate regions like poplars stands, has been a stimulating factor of suckers production which resulted in an regeneration of

stands. Nevertheless in tropical and sub-tropical areas fire should be used with extreme caution as some trees which are sensitive to fire often grow closely associated with trees which may benefit from its judicious use.

It is clear that to fully understand the suckering phenomenon, experiments should be conducted with low cost techniques of induction directly on the roots (like roots which have been slightly injured or disturbed) or with root segments, the problem remaining on the field the identification of lateral roots of the plant species one desires to propagate and the stimulation by the various appropriate techniques, at the right time (at the ontogenic growth period?), at minimum cost. For branches, there are several reports in tropical countries of successful layering. Field observations are also essential for the understanding of these mechanisms and processes and how to do for initiating them at low cost?

In short, it is very important that investigations should be carried out urgently on local and traditional knowledge of the natural phenomena of suckering and layering of tropical trees.

Ronald Bellefontaine
Cirad-forêt

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Re: [Humid] Discussion paper: rehabilitation efforts and techniques for the rehabilitation of degraded humid and sub-humid lands in Africa

Paul & Dineke Romeijn - 18 April 2003 13:58

Dear colleagues,

One can consider the Ensete based agroforests of the Gedeo peoples in Southern Ethiopia as a candidate system with potential for rehabilitation in humid highlands. This ancient land-use system originates from a time before agriculture and forestry were separated, which results in an 'edible forest'.

Prof. Demel Teketay was comitte member to a PhD dissertation for the University of Wageningen (The Netherlands) in 2002 by Kippie, a native farmer of the Gedeo zone. This work has been published as Treebook 5 and is avaialble free of charge (as are all documents on http://www.treemail.nl/download). It is packed with insiders knowledge.

The relevant documents can be downloaded from:

http://www.treemail.nl/download/treebook5.pdf (long; book; 7 Mb)
http://www.treemail.nl/download/a3gedeo.pdf (poster, A-3 size)
http://www.treemail.nl/download/gedeoweb.pdf (article 12p)

The poster requires 3-D (red-green) glasses for proper viewing.

Yours sincerely,
Dr. Paul Romeijn
Treemail

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DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Dominic Blay - 7 April 2003 16:41

THEME: Humid and sub-Humid Lands Rehabilitation Efforts and Techniques and Factors for Success/Failure

Discussion paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

DOMINIC BLAY
dblay@forig.org

DRIVERS FOR SUCCESSFUL REHABILTATION

· In order to succeed, rehabilitation should have the strong support and participation of local stakeholders in the planning implementation and monitoring of activities. The rights and responsibility of ownership, including customary claims and rights, must be clearly defined and mutually agreed.

· Local forest users should obtain some short-term economic benefits; these must be in addition to any potential future benefits that might not yet have a monetary value.

· There should be a comprehensive understanding of the complexities and dynamics of the forest ecosystem and of the interacting socio-economic and political systems

· Rehabilitation of degraded forest land is more likely to succeed if it leads to a general improvement in local soil fertility, hydrological conditions and the quality of the water supply and if the self-regeneration processes of the ecosystem are exploited and the dependence on outside inputs (e.g. planting, soil treatment, etc.) is minimized.

· Unless land capability is analyzed and overall land-use relationships are understood and legally defined, rehabilitation may not be effective or sustainable.

· Degraded lands need to be seen as integral parts of the rural tropical landscape that are affected by off-site conditions. Rehabilitated forests lands can provide numerous benefits and services to society; they fulfill productive and protective functions and need full recognition as an important land-use element.

· The value of degraded lands for all those people who depend directly or indirectly on forest resources for their livelihoods needs to be documented and formally recognized. The inadequate participation of local stakeholders in policy processes and an inadequate consideration of local needs, site conditions and land-use practices may result in degradation and the inappropriate conversion of degraded forests.

· Rehabilitating a forest ecosystem requires the changing of people’s perceptions, attitudes and

behaviour. Unless the affected people and user groups appreciate the reasons for change and the benefits they will derive from this, they will have little motivation to do so.

· The lack of adequate data, knowledge and expertise on the ecological, socio-economic, silvicultural land institutional dimensions of degraded forest affects and influences people’ perceptions of the resource, masks its importance and potential, and often results in poor management, further resource degradation and inappropriate conversion.

· Incentive schemes to promote the rehabilitation of degraded forests should prioritize those sites where both local and landscape-level benefits can accrue.

· The initial environmental conditions, particularly the stress and risk factors present in landscapes containing degraded and secondary forest, must be assessed

CRITERIA AND INDICATORS FOR MEASURING THE SUCCESS OR FAILURE OF A REHABILITATION

Rehabilitated areas should be measured for success or otherwise using the following the criteria and indicators.

Criteria

Can the system be sustained? Query: Is the new system self perpetuating or must it be subsidized to maintain itself?

Vulnerability to invasions Query: Does the new community resist invasion by other species?

Productivity Query: Is the new system as productive as the original?

Nutrient retention Query: How efficient is the nutrient cycling?

Biotic interactions Query: Are all key animal and plant species present?

Indicators

Indicators for measuring success or failure can be either biophysical or socio-cultural factors. In both cases it is necessary to evaluate the stability of the ecosystem that has been achieved, its efficiency, and its flexibility.

Biophysical indicators

Stability

Stability of soil surface
Presence of adequate plant cover and growth
Adequate crop yield
Appropriate plant species composition and structure
Appropriate animal population
Adequate regeneration or reproduction of preferred species
Acceptable water quality (surface and groundwater)
Appropriate albedo

Efficiency

Need for inputs of seed or fertilizer

Need for weed control
Need for irrigation

Flexibility

Extent to which alternative or multiple uses can be made of land

Socio-cultural indicators

Stability

Stable human population
Stable market prices
Adequate food
Stable land use pattern
Stable land tenure system
Appropriate balance between subsistence crops and cash crops
Stable rate of fuelwood consumption
Stable rate of water use (in arid zones)

Efficiency

Level of public in involvement or participation in the programme

Flexibility

Extent to which economic flexibility possible. Accumulation of economic wealth

QUESTIONS TO BE DISCUSSED

· What have been the rates of success or failures?
· What drivers have been responsible for these?
· What criteria and indicators have been used to determine the success or failure rates?

Reply to this

- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Mulugeta Lemenih Kassaye 10 April 2003 11:27
- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Angolo J. Obiri 11 April 2003 08:09
- Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Martine Ngobo 11 April 2003 10:14

- Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Prof. Chamshama 11 April 2003 08:41
- Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Eshetu Yirdaw 14 April 2003 13:46

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Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Mulugeta Lemenih Kassaye - 10 April 2003 11:27

Dear Blay,

Thanks a lot for your very interesting discussion paper "Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well)". I just want to react to one of your points, which I felt might need reconsideration. You mentioned the self-regeneration processes of the ecosystem need to be exploited and the dependence on outside inputs (e.g. planting, soil treatment, etc.) should be minimized for successful rehabilitation. I don't partly agree on this point.

By ecological restoration we are aiming at the reconstruction of a natural or semi-natural ecosystem on degraded or modified lands. The reconstruction process will be fast or slow depending on the degree of previous damage to the sites designated for restoration. It is true that no disturbance completely destroys a site. However, most of the degraded lands are poor to very poor in many aspects of self-regenerating processes. Their seed banks are degraded, seed rains are often very poor due to isolation or fragmentation, and their soils are nutritionally poor including rooting depths. For instance, results of a number of soil seed bank studies in agro-ecosystems converted from natural forests in the highlands of Ethiopia showed the lack or very limited availability of viable seeds of woody species as a common syndrome, a problem common to most tropical forest ecosystems. Indeed, the very limited self-regenerating potentials existing on degraded sites are rarely enough to achieve the desired degree of rehabilitation within the ‘time frame’ we may desire. I would like to stress that the time dimension should be considered very crucial when we discuss rehabilitation of ecosystem. This, therefore, calls for some kinds of speeding techniques, often called active restoration, for the rehabilitation process. For instance, in his contribution last week, Eshetu Yirdaw has presented one alternative technique for such speeding, the use of forest plantations as foster crops. I fully support Eshetu’s idea as I have the same experience both from direct field observation and research out puts in the highlands of Ethiopia.

Advantage of using such active restoration strategies like using plantations as foster crops is that they address several problems in a synchronized manner. They speed up the restore of soil fertility and the biodiversity resources, while supplying wood both for local and industrial purposes. The only silviculture lacking concerning this technique is how should the plantation forests be managed following the restoration of native forest flora under their canopies? (iii) What kind of silvicultural treatments and management practices should be employed? (iv) When and how should both the plantation trees and naturally regenerated woody species be put into socio-economic use, preferably into multiple uses, without jeopardizing their environmental importance?

My feeling is then that not only plantation forests but also other available techniques that are known to speed rehabilitation processes need to be utilized so as to achieve ecosystem restoration within acceptable time frame.

With regards!

Mulugeta Lemenih
SLU, Uppsala, Sweden

Reply to this

Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Angolo J. Obiri - 11 April 2003 08:09

Dominic Blay and Prof Chamshama, I must thank you for your inputs on this topic of rehabilitation of degraded humid & sub-humid lands. You touched many issues but I will dwell on one of them, which is most compelling to me. This is “changing of people’s perceptions, attitudes and behaviour” towards their environments.

In my opinion this is surely one of the biggest difficulties we face in the sub-Saharan region. The general public seldom take a second look at environmental issues, e.g. deforestation, water pollution etc. if they feel that there are no immediate gains for them.

How can we change these attitudes and behaviours? There have been, and continue to be, endless participatory initiatives carried out by NGOs and governmental bodies, to solve such problems, but little appears to change. It seems to me that we really have to dig deep to change a society’s perceptions on certain issues. Just to prevent degradation, let alone rehabilitation, a lot of effort is required and this should be directly channelled to the youth (not the old) in our homes, villages and other communities. I also believe that research scientists and resource managers, need to take more interest and get involved in what is being taught in our schools curriculum. I know some people may argue that is someone else’s job. For a start, environmental education needs reinforcement with criteria and indicators being set to ensure an improved environmental awareness in our communities particularly among the YOUTH.

On the good question you finally pose “what have been the rates of success or failures?” I am left thinking of yet another question that I feel should be put upfront: “what contributes to the successes or failures in places where they occur?” Perhaps one answer lies in people’s attitudes as pointed out in the recent Tanzanian example given by Prof Chamshama. He stated that the Sukuma people of Tanzania have successfully rehabilitated their land through their, well accepted, Ngitili system. For sure this is a system the Sukuma have faith and believe in, show positive attitudes towards, and are certainly inclined to implement. No wonder they received a merited award during the earth summit in Johannesburg last year.

I can only end by strongly restating the very question you correctly posed: How can we change people’s perceptions, attitudes and behaviour towards rehabilitating their environments?

Reply to this

Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Martine Ngobo - 11 April 2003 10:14

Dear Dominic,

Many thanks for your presentation which I actually found very interesting, particularly regarding the importance of using participatory approaches when designing and implementing a forest ecosystem rehabilitation project.

Actually, in the humid and sub-humid tropical areas, one of the main causes of forest degradation is the common local practice of un-sustainable slash-and-burn agriculture, which often leads to a fragmented landscape. Past experience of forest rehabilitation (e.g. in Thailand) demonstrated that by attending to the needs of local people in the project area, by providing opportunities for land use and employment and by improving security, rehabilitation projects help reduce pressure on degraded lands. Moreover, when the pressures are lifted, degraded forest land can even rehabilitate itself naturally, and with much higher biological diversity than could be reached in any tree plantation.

My suggestion on this issue (particularly, in humid tropical areas where slash-and-burn agriculture is the common practice) could be:
- to reduce traditional reforestation and to use the funds thus freed to strenghten extension and fire protection;
- to provide local communities with training in sustainable agricultural techniques, livestock farming, aquaculture, community forestry, etc.

Sincerely,

Martine.

Reply to this

- Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Prof. Chamshama 11 April 2003 08:41
- Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). by Eshetu Yirdaw 14 April 2003 13:46

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Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Prof. Chamshama - 11 April 2003 08:41

Thanks Mulugeta for your presentation. I agree with you on the use of plantations as foster crops. For the plantations, one may use single species or mixed species. Studies have shown that the use of mixed species plantations where one of the species is nitrogen fixing may further speed the restoration process. Mixed species plantations have for example been shown to:yield more diverse products, have greater biological diversity, aesthetic benefits, low risk against pests and diseases and may be less demanding on site nutrients than pure stands. Few studies have been carried out in SSA to evaluate the biological/economic feasibility of mixed species. Such studies are urgently needed.

Concerning the management of the forest plantations after restoration of native forest flora, there are various options dpending among others on the desired products, one of which is a series of thinnings, to open up the canopy and allow growth of light demanding woody species.

Regards,
SAO Chamshama

Reply to this

Re: Re: DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well).

Eshetu Yirdaw - 14 April 2003 13:46

Dear participants,

The long-term nature of the rehabilitation process and the need to speed up this process was raised by Mulugeta Lemenih. In addition to using plantations are there methods of accelerating the rehabilitation process?

One approach is to study the seed dispersal mechanisms and particularly, the behaviour of seed dispersal animals to get a clue on accelerating the colonisation of degraded lands by native plant species. Based on this approach, Wunderle (1997) suggests that structural complexity of plantations and the incorporation of fruit-bearing plants are more attractive to seed dispersing animals. As a result of attracting more seed dispersing animals the seed rain in plantations can be increased. This implies that mixed uneven aged plantations containing fruit-bearing species are more likely to speed up the colonisation process.

The other approach is to study the effect of the overstory plantation species on the understory microclimate particularly, the light regime. Overstory plantation species that can create a light to moderately-shaded understory environment may enhance recruitment rate and growth of spontaneously established seedlings (cf. Parrotta 1995). Canopy light transmittance can be one of the criterions for the selection of plantation species. However, this applies to humid and sub-humid Africa and may not apply to the drier parts of Africa.

Tree species which produce litter that decompose rapidly can enhance soil fertility as well as facilitate seed germination and seedling development. Therefore, the selection of plantation species with such attributes may also assist in speeding up the recovery process.

The development of methods to speed up the rehabilitation process is one possible area of future research. This type of research is even more relevant to the drier regions due to the slowness of the recovery process.

Overstory species and succession

Plantation species, after facilitating vegetation establishment and succession, usually fail to regenerate in their species-rich understory, since they are predominantly shade-intolerant pioneer species and eventually are replaced by native species. One good example is the failure of the exotic pioneer plantation species Maesopsis eminii to regenerate after canopy closure and its subsequent gradual replacement by native woody species in Tanzania (Viistensari et al. 2000).

On a related note, Maesopsis eminii is an invasive species and the most appropriate management strategy recommended by Viistensari et al. (2000) was the avoidance of disturbance of forests, where this species occurs. The practical applicability of this recommendation raises many questions. Therefore, as pointed out by Dominic Blay careful assessment of the invasiveness of species should be carried out before using them as nurse trees.

The other example is colonisation and establishment of native woody species beneath Eucalyptus globulus canopy in the Ethiopian highlands. Although paradoxical, it is very likely that the fast-growing highly competitive Eucalyptus plantations surrounding Addis Ababa will be gradually replaced by Juniperus-Olea dominated afromontane forest. One can observe at Entoto (at the northern outskirts of Addis Ababa) the Eucalyptus trees mixed with the mainly naturally regenerated native Juniperus procera trees. It already looks like a mixed plantation, although it was initially a Eucalyptus monoculutre. Unlike the Maesopsis in Tanazania, Eucalyptus in Ethiopia does not regenerate from seeds and there is no threat of the species invading new areas.

Socio-economic considerations

The other pertinent point raised by Mulugeta was on the benefits of the restoration sites to society during the restoration process. To begin with the socio-economic forces are the main driving factors of land use conversion, which has resulted in deforestation and the subsequent land degradation. Unless we understand and try to address these factors, it is very unlikely that restoration endeavours will be successful.

The participation and integration of the local communities and forest users into the decision-making processes is essential. Ways and means to benefit the local communities should be devised. Without short-term gains it is difficult to justify the long-term benefits that will occur after several decades of rehabilitation effort. Initially, it can be in the form of non wood products and later on they can also benefit from the thinning harvests of the plantation species. Not only the needs of the local communities, whenever possible the needs of the local wood industry should also be considered.

References

Parrotta, J.A. 1995. Influence of overstory composition on understory colonization by native species in plantations on a degraded tropical site. Journal of Vegetation Science 6: 627-636.
Viisteensaari, J., Johansson, S., Kaarakka, V. and Luukkanen, O. 2000. Is the alien species Maesopsis eminii Engl. (Rhamnaceae) a threat to tropical forest conservation in the East Usambaras,

Tanzania? Environmental Conservation 27 (1): 76-81.
Wunderle, J.M. 1997. The role of animal seed dispersal in accelerating native forest regeneration on degraded tropical lands. Forest Ecology and Management 99: 223-235.

Regards

Eshetu Yirdaw

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Re: Humid digest, Vol 1 #14 - 2 msgs

Dominic Blay - 11 April 2003 08:59

Dear Mulugeta Lemenih
Thanks a lot for your contribution.I very well agree with you .
In my background paper, I discussed the potential role of plantations in rehabilitation. (p.19).
However what I meant was that if there was the possibility, the self-regeneration processes of the ecosystem need to be exploited especially in humid areas.

Best regards
Dominic

----- Original Message -----
From: <humid-request@antenna.etfrn.org>
To: <humid@antenna.etfrn.org>
Sent: Thursday, April 10, 2003 11:00 AM
Subject: Humid digest, Vol 1 #14 - 2 msgs

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> Today's Topics:
>
> 1. DISCUSSION paper: Drivers' of successful and unsuccessful rehabilitation of degraded humid and sub-humid lands in Africa (Criteria for success and failure are to be indicated as well). (Dominic Blay)
> 2. Re: DISCUSSION paper: Drivers' of successful and unsuccessful

Go to bottom for most recent messages

Re: [Humid] Re: DISCUSSION paper: PAFT for rehabilitation of degraded humid and sub-humid lands in Africa

Obed Kawanga - 11 April 2003 12:01

Dearb participants,I woul like to put forward the following approarches of the rehabilitation of humid and sub-humid lands in Africa. Participatory Forrest Transformation (PAFT) which is suitable for both literate and iliterate people to understand. It is practical and sustainable . It is by the use of pictures. Partipatory Investiment and Conservation Opotunities to None Forestry Income Generating Activities. This approarch was proved suitable to people around the forest to come up with diversified livelihood
for none forest income generating activities AND THOSE REQUIRE SUPPORT so as other community member can follow. Best wishesOBED

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Re: Humid digest, Vol 1 #16 - 1 msg

Dominic Blay - 12 April 2003 16:34

>From : Dominic Blay

Dear Angolo,
Yes, I agree that there should be serious environmental education targeted on the youth so as to forestall the environmental degradation occurring all over Africa.

On question of change of people's perceptions, attitude and behaviour towards rehabilitation of degraded lands I would subscribe that:
-The people involved in rehabilitation should have security of tenure

-They should in addition to being involved in participatory planning and implementation , be made aware
of the short term economic gains of the rehabilitation.

-They should also be assured of equitable sharing of any future economic benefits.

-However, all these will only come about only when there are legislative and policy framework on the promotion of rehabilitation of degraded lands in respective African Countries

Dominic Blay>

----- Original Message -----
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To: <humid@antenna.etfrn.org>
Sent: Saturday, April 12, 2003 11:00 AM
Subject: Humid digest, Vol 1 #16 - 1 msg

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Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14-19 April)

Shabani Chamshama - 15 April 2003 12:42

Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14-19 April)

By Prof. Dr Shabani Chamshama, Sokoine University of Agriculture, Tanzania
schams@suanet.ac.tz

Forests of Sub-Saharan Africa (SSA) provide many wood and non-wood forest products (NWFP) and other services of direct benefit to mankind. Despite all the invaluable goods and services provided by the natural forests, their destruction is still going on, which contributes significantly to the current environmental or land degradation. The direct and indirect causes of land degradation, its consequences and rehabilitation techniques were the subjects of e-mail discussion during the last two weeks.

While rehabilitation of humid and sub-humid degraded lands is receiving attention (both nationally and internationally) in various parts of SSA, there are only few success stories. This could be due to various constraints, gaps in knowledge and policy, institutional and legislative problems.

Constraints

The constraints to rehabilitation of humid and sub-humid zones of SSA have been discussed in the two background papers and these include:
- government and other stakeholders’ lack of/limited interest in, policies for, and commitment to rehabilitation of degraded lands;
- contraction of public sector capacity to control and manage forest resources;
- lack of/limited community involvement in NRM and in rehabilitation of degraded lands with devolution of secure tenure and use rights;
- the lack of other social and economic preconditions (e.g. lack of secure and clear tenure, markets and marketing development for products, and inequitable cost and benefit sharing). Lack of secure and clear tenure for example results in forest resources being treated as open access resources;
- poor/limited monitoring of silvicultural, ecological and socio-economic changes of the rehabilitation process;
- limited silvicultural knowledge on rehabilitation towards natural forest or mixed-species plantations and inadequate species – site matching;
- poor extension services resulting in limited or lack of adoption of proven technologies (e.g. improved charcoal and wood stoves and agroforestry technologies), as a way of reducing pressure on the forest resources;
- often the rehabilitation focus is on biological aspects and inadequate attention is paid to the socio-economic viability of the system; and
- the species chosen for the facilitation of rehabilitation may have limited value for meeting the subsistence, environmental and market needs of local people.

Are these the only constraints or there are others not listed? Are there rehabilitation case studies where some

of the listed constraints have contributed to project failure?

Gaps in Knowledge

The humid and sub-humid background papers have come up with the following research gaps:
- The impacts of natural resource policies/legislation, sectoral policies, and macroeconomic policies on sub – humid forests management and utilization;
- silvicultural management of mixed species stands and species-site matching;
- Nursery studies on methods to raise indigenous trees if the tree species are to be successfully used in rehabilitation;
- alternative and more sustainable methods of food production;
- valuation of forest resources to estimate the total economic value so as to reflect the value of the forest as a physical asset and indicates the rationale for investing in forests. Valuation is also important in defining property rights as it indicates the actual value of the forest, which can be used as a basis for setting proper rents and taxes.

Are there other issues requiring research? Are there countries in the humid and sub-humid zones already working on some of the listed aspects?

Recommendations for Policy, Institutional and Legislative Reforms

Conducive policies are needed which enable local people to adapt and protect themselves in a rapidly changing and usually hostile socio-economic environment. To successfully rehabilitate the humid and sub-humid zone degraded lands, therefore, there is a need for policy, institutional and legislative reviews with the objective of improving humid and sub – humid forests management and utilisation. Some recommendations in this direction from the background papers include:
- Governments must have rehabilitation policies and be committed to their implementation;
- Forestry and other natural resources policies, institutional frameworks and forest laws should be reviewed to enable involvement of communities and other stakeholders in management and utilisation of general/public lands forests/forest reserves;
- There is need for natural resource policy reviews so that non – gazetted forests/woodlands are not treated as “open access” resources;
- Land policies should be reviewed so as to enable communities and villagers to have secure and clear tenure rights;
- Policies that have impact of woodlands/forests should be reviewed to address issues of incompatibility.

What is the situation in the various countries of the humid and sub-humid zones of SSA with regard to policy, institutional and legislative reforms?

Recommendations for Forest Management and Development

The background papers have come up with the following management and development recommendations:
- Forests have to be managed in terms of socio-economic, ecological and cultural sustainability or, in other words, in accordance with principles of multi-functionality and equitable benefits/responsibility sharing. Communities should be involved in joint forest management (JFM) of adjacent forest reserves or in community based management (CBM) of unreserved forests (i.e. public/general lands) bordering villages;
- Continued agricultural intensification is essential to achieve the triple goal of (i) assuring production of sufficient food for future generations at reasonable prices, (ii) protecting natural resources from exploitation and (iii) alleviating poverty, hunger, food insecurity and malnutrition;
- Adoption of agroforestry, a sustainable production system affordable by resource poor farmers so as to ensure food security and wood availability and thus reduce pressure on forest resources. Establishment of woodlots should also be encouraged;

- To reclaim degraded lands through increased sustainable food crop production and reduced rural poverty it is suggested that national and global societies invest in actions that increase the soil’s nutrient capital in the long-term;
- Wide adoption of improved charcoal and wood stoves as a way of reducing wood and charcoal consumption due to current use of inefficient stoves;
- To avoid further degradation and improve sustained multiple use of land-based resources there is a need for developing land use plans, appropriate and organized expansion systems and sustainable agricultural practices.

Are there other management and development recommendations? To what extent are countries of the humid and sub-humid zones of SSA implementing some of these recommendations?

Reply to this

- Is rehabilitation of degraded lands receiving proper attention? by Edouard BONKOUNGOU 16 April 2003 11:41
    - Re: [Humid] Is rehabilitation of degraded lands receiving proper attention? by muhammad afzal chaudhry 21 April 2003 17:39
- Re: [Humid] Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14- 19 April) by Dr Donatien N'ZALA 23 April 2003 10:52

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Is rehabilitation of degraded lands receiving proper attention?

Edouard BONKOUNGOU - 16 April 2003 11:41

Dear Colleagues,

Professor Chamshana has made a very comprehensive introduction to theme III of our discussion on humid and sub-humid zones. Thanks Prof. I wish to submit to you Prof., and to the other participants, that we should explore further the contention in your introduction that rehabilitation of humid and sub-humid lands is receiving attention (both nationally and internationally) in various parts of SSA...Do we really have evidence for that?

Edouard Bonkoungou
e.bonkoungou@cenatrin.bf
<p>

Reply to this

- Re: [Humid] Is rehabilitation of degraded lands receiving proper attention? by muhammad afzal chaudhry 21 April 2003 17:39

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Re: [Humid] Is rehabilitation of degraded lands receiving proper attention?

muhammad afzal chaudhry - 21 April 2003 17:39

Could the Professor be requested to include in his comprehensive review, the Arboricidal and Charcoal Treatments meted out to the Tropical High Forests of East Africa, pareticularly Uganda.

Dr. Afzal.

>From: "Edouard BONKOUNGOU" <e.bonkoungou@cenatrin.bf>
>Reply-To: humiddisc@antenna.etfrn.org
>To: <humid@antenna.etfrn.org>
>Subject: [Humid] Is rehabilitation of degraded lands receiving proper
>attention?
>Date: Thu, 17 Apr 2003 14:18:21 0200
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>Dear Colleagues,
>
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>that?
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>Edouard Bonkoungou
>e.bonkoungou@cenatrin.bf
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>For questions, please contact the ETFRN Coordination Unit at:
>ETFRN.Tropenbos@wur.nl

Re: [Humid] Introduction to theme III: Major Constraints; and Research, Development and Policy Recommendations (14- 19 April)

Dr Donatien N'ZALA - 23 April 2003 10:52

Chers collègues,
Je m'exprime en français sachant que vous êtes également capables de comprendre les deux langues.
Je trouve très intéressante et enrichissante cette discussion sur la réhabilitation des terres dégradées des zones humides et sub-humides. Je voudrais à mon tour contribuer à la discussion en vous rapportant nos résultats obtenus sur des terres dégradées en utilisant le paillage et les plantes de couverture avec une espèce forestière de bois d'oeuvre, Terminalia superba. L'essai a été conduit à Kombé, 17 km au sud de Brazzaville (Congo). Les traitements étaient constitués de plants de T. superba paillés avec du papier journal ou des feuilles d'une Marantacée selon un cercle de 2 m de diamètre autour du plant, de plants de T. superba en association avec des plantes de couverture (Mucuna spp, Fabaceae), de plants de T. superba dans des parcelles désherbées et non déseherbées. Chaque traitement avait été repété trois fois et chaque parcelle élémentaire était constituée de 9 plants de T. superba espacés les uns des autres de 5 m.
Le but de l'essai était d'étudier l'influence du paillage, des plantes de couverture et de la végétation herbacée sur la survie, la croissance initiale du T. superba et l'humidité du sol. Celle-ci a été mesurée par les méthodes gravimétrique et neutronique.
Au cours de la première année de croissance, douze mois après plantation, l'essai a mis en évidence une meillure survie, une bonne croissance des T. superba et une meilleure retention d'eau dans les traitements paillés suivis des plantes de couverture par rapport aux traitements non désherbés surtout pendant la saison sèche.
Le paillage et les plantes de couverture peuvent donc jouer un rôle important dans la restauration des terres dégradées.
J'espère que cette étude peut aider à illustrer les

recommandations sur les travaux de recherche.
Mais au delà de ces aspects techniques, une contrainte majeur est la faible prise en compte des aspects sociaux et culturels par de nombreux projets de réhabilitation des terres dégradées. Il est effectivement nécessaire d'obtenir une forte adhésion des parties prenantes locales et leur participation à la planification, à l'exécution et au suivi des activités. Il faut y inclure les ONG qui effectuent déjà de nombreuses activités au profit du reboisement dans nos pays.
Cordialement à tous,

Dr Donatien N'ZALA
Laboratoire d'écologie appliquée et de protection de l'environnement, Université M. Ngouabi
Brazzaville - Congo.

--- Shabani Chamshama <schams@suanet.ac.tz> a écrit :
> Introduction to theme III: Major Constraints; and
> Research, Development and Policy Recommendations
> (14- 19 April)
>
> By Prof. Dr Shabani Chamshama, Sokoine University of
> Agriculture, Tanzania
> schams@suanet.ac.tz
>
> Forests of Sub-Saharan Africa (SSA) provide many
> wood and non-wood forest products (NWFP) and other
> services of direct benefit to mankind. Despite all
> the invaluable goods and services provided by the
> natural forests, their destruction is still going
> on, which contributes significantly to the current
> environmental or land degradation. The direct and
> indirect causes of land degradation, its
> consequences and rehabilitation techniques were the
> subjects of e-mail discussion during the last two
> weeks.

>
> While rehabilitation of humid and sub-humid degraded
> lands is receiving attention (both nationally and
> internationally) in various parts of SSA, there are
> only few success stories. This could be due to
> various constraints, gaps in knowledge and policy,
> institutional and legislative problems.
>
> Constraints
>
> The constraints to rehabilitation of humid and

Rehabilitation of degraded humid and sub-humid lands

Dr Didier Lesueur - 17 April 2003 14:33

Dear colleagues,

In order to participate to this interesting discussion on the rehabilitation of degraded humid and sub-humid lands, I would wish to describe you results obtained in Senegal by using improved fallows with australian acacias. This work was supported by European Commission (FED) through the Regional Project "Jachere" co-ordinated by Christian Floret from IRD. In Senegal, my colleague Bassirou Sougoufara from the Forestry Administration (Direction des Eaux et Forets, Chasse et Conservation des Sols du Senegal) set up several experiments in Casamance (South in Senegal) where two species of fast-growing australian acacias were introduced into the field (Acacia mangium and Acacia auriculiformis). The reason of this choice was justified by the interesting results obtained by CIRAD-Foret and Idefor/dfo with these species in Ivory Coast in terms of wood production, symbiotic nitrogen fixation and litter production.
Several field trials were set up around Ziguinchor (Low Casamance), Sedhiou (Medium Casamance) and Kolda (High Casamance). In each of them, one part of the trees were inoculated with selected microsymbionts (rhizobia and Ectomycorrhiza), and the other part did not receive inoculum. During three or four years after plantation, growth of trees were measured. Results obtained showed a positive effect of the inoculation of the growth of these both species. It confirms results obtained with Acacia mangium in several humid countries (Galiana et al, 1998). In terms of soil fertility, trees were pruned and several crops were cultivated in each plot in order to assess the effect of the fallow on the yield. Following the type of crops cultivated, results obtained seemed to indicate that yields were higher on improved fallows compare with yields obtained in natural fallows. Unfortunately, all these results were not described in an article. They were only presented in oral presentation of Bassirou Sougoufara to the meeting on the Acacia species in Senegal organized by ISRA & IRD on 3-5 December 1996 in Dakar.
In Bel Air Research Center from IRD, an experiment was carried out in a very poor soil where the growth of plants was really limited. An inoculation field trial with Acacia mangium was set up in irrigated conditions. The aim was to see if we can always obtain a positive effect of the woody legumes on the improvement of soil fertility. Twenty months after plantation, growth of no-inoculated plants were low rather than growth to inoculated plants was high. All

the trees were pruned and several plots of maize (4m2) were cultivated on the both inoculation treatments. Our results showed clearly that the growth of maize and the yield of grains were better in soil where well developped Acacia mangium were present at the end of the experiment. These agronomical results were in accordance with the results of the soil analysis which were done (organic matter content, nitrogen content, phosphorus contentŠ). An article is in preparation for publication in an international journal.

In conclusion, I think that the improved fallow system with fast-growing species of legumes as australian acacias but also Tephrosia which is widely used in Kenya for exemple is very important for the restoration of soil fertility in humid and sub-humid lands. Results obtained seems to indicate that this system could be optimized by inoculation with selected microsymbionts. Hybrid systems between improved fallows and alley cropping could be imagined in order for the farmer to always cultivate one part of his field and by this way continue to get money. But it is necessary to test it into the field conditions.

I hope that these results will be useful for the forum,

Sincerely Yours,

Didier Lesueur
Programmes Trees & Plantations from CIRAD-Foret, Lab. of Microbiology (IRAD, UCAD, ISRA, CIRAD), IRD Research Centre, Dakar, Senegal
--
****

Dr Didier Lesueur

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Laboratoire de Microbiologie des Sols
IRD (ex ORSTOM) Bel Air
BP 1386
Dakar Senegal

Tel 00.221.849.33.20
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Email : Didier.Lesueur@ird.sn ou Didier.Lesueur@cirad.fr
http://www.cirad.fr
http://www.cirad.fr/presentation/departements/cirad-foret.shtml

Projet INCO-DC n° ERBIC18-CT97-0194 coordonné par le CIRAD-Forêt :
http://users.ox.ac.uk/~dops0024/EUmicrosymbionts/index.htm

Reply to this

- Re: [Humid] Rehabilitation of degraded humid and sub-humid lands by muhammad afzal chaudhry 21 April 2003 17:34

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Re: [Humid] Rehabilitation of degraded humid and sub-humid lands

muhammad afzal chaudhry - 21 April 2003 17:34

In our discussion on humid tropical vegetation, it is important that the Arboricidal Treatment and the Charcoal Treatment introduced by the then colonial masters in East Africa, particularly in Ugnada, as a major ecological upheavel, is brought forth. The impassable forests like budongo were turned into tree graveyards in their quest of Mahoganies. The multistoried gift of nature was put on the path of secondary succession wherein the Elephants as well as the Mahoganies were reduced to thretened species.This destruction must be compensated by those reponsible and the short term beneficiaries.Let this aspect be highlighted in the proceedings.

Dr. Afzal Chaudhry.

>From: Didier LESUEUR <didier.lesueur@ird.sn>
>Reply-To: humiddisc@antenna.etfrn.org
>To: humid@antenna.etfrn.org
>Subject: [Humid] Rehabilitation of degraded humid and sub-humid lands
>Date: Thu, 17 Apr 2003 11:26:09 0000
>
> Dear colleagues,
>
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>rehabilitation of degraded humid and sub-humid lands, I would wish to
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> Sincerely Yours,
>
> Didier Lesueur
> Programmes Trees & Plantations from CIRAD-Foret, Lab. of Microbiology
>(IRAD, UCAD, ISRA, CIRAD), IRD Research Centre, Dakar, Senegal
>--
>**********
>
>Dr Didier Lesueur
>

SYNTHESIS OF WORKSHOP RECOMMENDATIONS

Dineke Romeijn - 4 September 2003 17:22

VITRI/ETFRN/IUFRO-SPDC WORKSHOP

TREES, AGROFORESTRY AND CLIMATE CHANGE
IN DRYLAND AFRICA (TACCDA)
Hyytiälä, Finland, 30 June - 4 July 2003

Websites: http://honeybee.helsinki.fi/tropic or http://www.etfrn.org/etfrn

SYNTHESIS OF WORKSHOP RECOMMENDATIONS
(Draft for information and discussion)

Background

Much information is already available on tropical dryland management and rehabilitation and on related research. The TACCDA workshop was organised with EU (EC DG-research) support and aimed at compilation and analysis of existing information so as to encourage further measures to be taken at the local, national or international level. The workshop emphasis was on biophysical and socio-economic analysis of land degradation and impacts of climate change. A pre-workshop e-mail discussion was facilitated by ETFRN in April-May 2003, and together with background information, its results are available from the ETFRN website. The workshop was attended by about 50 participants, representing 17 mainly African countries and several international bodies, such as UNCCD, ICRAF, CIFOR and IPGRI. The general vision statement for the workshop was “Agree on clear national policies and strategies for addressing ecological degradation in savanna and dryland forests taking account of management and climate change”.

Workshop organisation

The responsible Finnish organiser, Viikki Tropical Resources Institute (VITRI) at University of Helsinki, has been involved in research and training related to tropical forests and dryland rehabilitation for more than 20 years. Another organiser was the European Tropical Forest Research Network (ETFRN), which connects the tropical forest researchers and their institutions in the EU, promotes North-South information exchange for policy and management improvement, and arranges thematic workshops. The Special Programme for Developing Countries of the International Union of Forest Research Organisations (IUFRO-SPDC) supports researchers in the South and, as a workshop co-organiser, highlighted related problems in the humid tropical regions.

The workshop split into four working groups covering the following aspects:
1. Drylands and global change.
2. Climate change and dryland forests.
3. Facilitating land-use change on drylands.
4. International policy implications on dryland use.

The recommendations of the working groups are summarised below.

Drylands and global change

POLICY
Further clarification of community needs and involvement of all stakeholders is necessary for successful policy revision. There are contradictions between policies related to drylands and peoples´ actual needs or customary land-use. Dryland communities and especially disadvantaged groups, such as women, do not have sufficient access to education.

Successful examples should be fully considered when initiating new national and local initiatives on dryland management. Appropriate dryland policies must be supported by efficient tools for management improvements, and past and present examples of participatory approaches must be taken into account.

Research is needed to identify policy enforcement instruments so as to encourage the formation and operation of grassroots resource management associations. More social responsibility of actors involved in dryland resource use or management is needed. This can be achieved by binding resource users to resource management and developing ways to re-invest in resource base maintenance and development.

The role of trees as suitable crops using low-quality water and in reclaiming waterlogged or saline land and thus also mitigating the energy crisis should be recognised. Energy saving contributes to the sustainability of dryland resource management and necessitates introduction of new and appropriate technology in woodfuel use and development of alternative energy sources where feasible. Policies are also needed to support new and innovative water harvesting and distribution techniques especially for use by individual farmers, and to support the reuse of discharge water from urban areas and irrigation schemes.

The issue of alien or invasive species on drylands should be re-examined, so as to define clearly the environmental, economic and social problems and advantages associated with such species and to develop appropriate management regimes for these species as alternatives to often ineffective attempts at total eradication.

RESEARCH
Dryland management requires support from interdisciplinary research, and efforts should be taken to combine production-orientated research with studies on social and economic research, including the role of women as dryland resource managers. Research on production, processing, value adding and marketing of dryland tree and woodland products is essential considering their importance for livelihoods in dryland Africa. Well-established traditional production technologies should receive due attention and be applied to new production locations and the global situation. New priority tree species for domestication and further improvement have also been identified for different subregions, and national and international support should be mobilised for continuing work. This also warrants the generation of precise market information and sensitising consumers and decision makers in industrialised countries on the potential of dryland products for development and poverty reduction, in particular in dryland Africa.

Reforms in land use and tenure arrangements should be supported by research and exchange of information between countries and regions. Sub-Saharan Africa can benefit from dryland management experience (e.g. on land rehabilitation and efficient use of scarce water resources) gained in other regions and make the results so far obtained available for them. Well-planned and implemented case studies that combine ecological, social and economic factors are needed in all regions and results from them should obtain widest possible publicity and consideration elsewhere.

Long-term monitoring of natural and man-made production systems and traditionally protected areas needs more systematic effort and resource allocation. Permanent sample plots should be established for determining the yield of various products from indigenous and exotic tree species under different management regimes. National and international databases and networks should provide easy access to research results and baseline information. Traditionally-protected forests in dryland Africa should also be documented and studied, so as to understand fully their cultural and social roles and their function in biodiversity conservation and land rehabilitation through spontaneous or assisted natural regeneration.

Research and already available results on water relations in dryland farming systems, including intensively managed tree plantations, needs attention and supportive research. Some of the most efficient improvement actions in dryland management have been obtained using improvement of water supplies, elimination of excessive water use and diversifying the agroforestry production systems for more economic water use. Irrigation technologies, especially those based on seasonally available water, must be developed also for the benefit of smallholder farmers. Based on scientific research, full advantage should be taken of the possibilities for intensive plantation forest production where sufficient irrigation water is available. Research should also give guidance to the optimal incorporation of trees in large-scale irrigation schemes.

DEVELOPMENT
Land tenure is a central issue affecting the use of forests and trees on drylands and should be addressed simultaneously at national and local levels. At the national level, national forest programmes or other relevant programmes or action plans should contribute to finding resource use and management solutions for the particular situation. This is mainly the responsibility of the government authorities responsible for dryland tree resources. At the local level, management planning that includes all stakeholders should be initiated. In cases of conflicting views on resource use, actions for conflict resolution must be promoted. Adherence to single universal approaches should be avoided, since available experience shows that different solutions to management regimes and other key issues can be simultaneously applied.

Climate change and dryland forests

Poverty and environmental degradation are major problems in dryland Africa, and forests and trees contribute significantly to rural livelihoods. These issues must be given priority while undertaking studies and actions related to climate change. There is a need for genuin integration of stakeholders at all levels, and it is recommended that all groups be actively represented in research project planning at the national level. International donors should take an active role in promoting such partnerships and avoid looking at the climate change issue from the Northern viewpoint only. National and regional organisations should define specific areas for intensive climate change study, and international donors should actively support collaborative projects and dissemination of results through regional networks.

More accurate global data on climate-forcing gas emissions is needed. International policy should be designed to enable research funding at the regional level which does not exclude any country. Vegetation systems in dryland Africa are affected by the consequences of anthropogenic emissions of climate forcing gases. Existing systems should be characterised in terms of an Integrated Ecological Management Approach (IEMA).

International support is necessary for African nations to participate in climate change policy processes and related research and training. These nations are disadvantaged by insufficient human resource capacity and inadequate national data (net climate forcing gas emissions and all the associated data). Relevant research programmes should be initiated with national and international research funding (mainly by international donors) in a range of land management and land use systems in different vegetation types. There should also be sufficient training of researchers.

Facilitating land use change on drylands

Agroforestry is a traditional form of dryland management that needs to be properly assessed in its various forms and fully utilised when new types of sustainable management are planned. Sufficient national resources should be mobilised and supported for adoption of the best available international knowledge on agroforestry systems, especially those that benefit the rural poor by providing better food security and income using locally available resources and skills. Support should be given to crop diversification on drylands and domestication of lesser-known crop species, especially traditionally used multipurpose trees and shrubs with potential value for income generation. Agroforestry development should also include support, in the form of national policies and incentives, to processing and marketing of new products and incorporation of the private sector, promotion of fair trade and suitable certification and other marketing mechanisms.

National policies on land tenure and land utilisation on drylands should give sufficient support to traditional sustainable forms of land use. When new or unfamiliar types of economic activities are introduced in dryland regions, such as high-input agricultural production or industrial development, the local communities should be given a sufficient share of the benefits from them while preserving their traditional means of production. Agroforestry development should always seek to engage women in development and sustainable natural resource use and management.

Management and controlled utilisation of economically valuable species should be understood as an efficient means of biodiversity conservation. Biodiversity on drylands affected by land-use change needs attention because of its value for both conservation and utilisation. Drylands typically include gradients of different ecological zones some of which (for instance, riverine forests) are limited in area and under particular threat of destruction or degradation because of poorly planned development activities. When establishing national parks and other protected conservation areas on drylands, traditional land use that is not in conflict with conservation aims should be allowed and the local communities should be made partners and beneficiaries of conservation area management. Information on wildlife, such as clarification of migration patterns of large herbivores, can help in planning of protected areas and minimise potential conflicts between traditional land use and conservation are management.

Fire management on drylands requires supportive policies and practical guidelines that can be applied through community participation. This would benefit animal husbandry and preservation of ecosystem productivity and diversity.

In forest management planning, the available experience on participatory and community-based approaches should be fully utilised. Forest and tree resources in woodlands must be properly assessed so as to allow their efficient management. Based on already existing information, new, innovative dryland management regimes involving, for instance, the local communities, the private sector, central or local government, and non-governmental organisations as partners, should be promoted. This approach should also form the basis for the rehabilitation of degraded drylands for improved and sustainable agricultural and forest production.

International policy implications on dryland use

There is a need to evaluate the impacts to date of international agreements on dryland management, and possible conflicts between the implementation of international agreements and national or local development should be identified. The starting point should be the verification of how international agreements translate into national strategies and their implementation. Information on resource allocation from national and international sources and specific impact assessment reports on particular initiatives or interventions will facilitate planning. Sources of information include national government reports and other documents prepared for conventions and agreements, various task force and expert group documents, as well as reports of various international organisations, initiatives and networks.

It is of utmost importance that Sub-Saharan African countries actively participate in COPs of the conventions,

present their own experience and develop common stands on issues raised. International cooperation should be used to ensure sufficient participation of countries which otherwise would not be able to participate in convention meetings.

The information and recommendations of national forest programmes, including forestry master plans, should be analysed and used as a basis for updated plans. Forest and tree resources in Sub-Saharan Africa contribute much to urban and rural livelihoods in the region. This is in sharp contrast to the current low levels of investment in the development and sustainable management of these resources. In most countries of the region, forest departments still await restructuring and investments in dryland resource management are lacking. Policy research is needed for guiding the reforms.

The development of appropriate policy and institutional reforms call for high-level political advocacy and sharing of experiences among countries. In Sub-Saharan Africa, a policy task force could operate through old high-level bodies, such as the African Ministerial Committee on Environment (AMCEN), or under facilitation by more recently established ones, such as the New Partnership for African Development (NEPAD).

Actions on policy research and development should include mobilisation of a policy level advocacy task force to sensitise, promote and support policy analysis and revision and promote participation among the countries of Sub-Saharan Africa. Formulation and implementation of policy and institutional reforms for forest sectors should be based on the results of the global forest policy process and the UN millennium development goals. Existing economic organisations and research networks in Sub-Saharan Africa and elsewhere should also be fully utilised.

Research and feasibility studies for the acquisition of accurate information on forest resources should be implemented in dialogue with those using research results at national, regional and international levels. This would create synergies, harmonisation of efforts and new initiatives in dryland forest research and development. An integrated sustainable management approach at the landscape level offers a feasible approach for national planning of dryland management.

Reply to this

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initiative en environnement

=?iso-8859-1?Q?Fran=E7ois_ZONGO?= - 25 September 2003 11:12

BURKINA FASO , 25 septembre 2003

Bonjour,

je m'appelle Gérard Bruno YONLI de nationalité Burkinabé, informaticien de formation et actuellement gestionnaire de programme dans l'Association Burkinabé pour la Survie de l'Enfance qui est une ONG de développement basée à Ouagadougou. j'ai en charge le volet environnement qui traite des projets sur la lutte contre la désertification, conservation des ressources naturelles, gestion des déchets solides et liquides, récupération des terres dégradées, éducation en environnement en milieu scolaire.

j'aimerai avoir des informations et opportunités de participer à des séminaires, ateliers ou cours sur la gestion durable de l'environnement en vu d'approfondir mes connaissances.

BREF PRÉSENTATION DU PROGRAMME.

Le programme environnement de l'ABSE à vu le jour en 1997 lors d'une initiative de camps de reboisement tenu à Loumbila.
L'objectif de ce programme est de travailler à la protection de l'environnement qui passe par la lutte contre la désertification, la conservation des ressources naturelles, la gestion des déchets liquides et solides, l'assainissement du cadre de vie et l'hygiène corporelle.
Le public cible primaire du programme est bien entendu les enfants et aussi les populations des zones rurales et urbaines.
Les activités du programme sont :
- les plantations d'arbres dans les écoles pour offrir aux enfants des cadres seins pour étudier
- l'aménagement des pépinières et jardins expérimentales pour offrir aux enfants des connaissances en matières de production des plants
- des formations et sensibilisations
- l'éducation environnementale
La stratégies du programme est basée essentiellement sur une approche dite participative qui implique à tout les niveaux les différents acteurs du programme ceci dans le processus d'élaboration et d'exécution du programme.
Le programme depuis sa création à nos jour a connu des résultats fort appréciable :
- plus de 40 écoles primaires et secondaires touchées
- 30 000 arbres plantés
- 10 pépinières scolaires implantées dans 3 provinces avec en moyenne une production de 10 000 plants par an
- plus de 10 000 élèves touchées en matières d'éducation en environnement
- plus de 40 enseignants formés
- des livrets sur l'environnement élaborés.
<p>