



DESIRE WB-3 Stakeholder Workshop 1 report

WP3.1 Stakeholder Workshop 1 report - held in Santiago Island, Ribeira Seca Watershed, Cape Verde, March 4-6, 2008.

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Stakeholder workshop 1

Land degradation and desertification – existing and potential prevention and conservation strategies

Name of the study site: Santiago Island, Ribeira Seca Watershed, Cape Verde

Date of workshop: March 4th – 6th, 2008

Author(s): Eng. Jacques de Pina Tavares
Eng. Amarildo Cardoso dos Reis

I. General Information

In sequence of the “Training Workshop 1” carried out at CEMACAM in Murcia, Spain from October 1-5, 2007 which was focused on two subjects, namely, WP3.1 (stakeholder workshop 1) and WP3.2 (assessment and documentation of strategies), INIDA, as DESIRE’s project partner in Cape Verde, organized a workshop directed to local (external & internal) stakeholders.

Since Santiago Island was selected as our study area, and Ribeira Seca Watershed as our hotspot, it was consensually decided that the workshop should take place in an informal environment, in a room with the minimum working conditions, and within watershed boundaries. This way the participants could easily identify themselves with the entire setting, in order to freely participate and provide as many information as possible.

Hence, the stakeholders’ invitation selection criteria would include public and private institutions, individuals, and community groups, whose activities are within or have some influence in the study area.

According to our expectations the workshop atmosphere was serene and very participative, besides being efficient, informative, formative, and beneficial for all intervenient, inasmuch as it provided moments of identification of the problems and proposals of solutions of the same, by the different stakeholders.

Notwithstanding the different points of view of the different stakeholders, through many discussions and suggestions, platforms of agreements were reached; that will possibly and potentially be part of the resolution of local problems, which will serve for the remediation of the processes of land degradation and desertification.

A) Workshop

Workshop venue: CFA – Centro de Formação Agrária (*Agriculture Training Center*) – at INIDA, São Jorge, (*located within Study Site – Ribeira Seca Watershed*)

Workshop moderator(s): Jacques Tavares, and Amarildo dos Reis

List of workshop participants:

#	Mr. / Ms	Name	Nickname	Stakeholder category / institution (e.g. land user, researcher, NGO, GO)	Activity/Local or external participant? (L / E)	Contact
1	Mr.	Luis Carlos Mendonça	Carlitos	Assoc. Pico D'Antónia	Student/ Local	9958489
2	Mr.	Armando Monteiro	Fula	Ribeirão Galinha	Farmer/ Local	2711037
3	Mr.	Aniceto Frederico Tavares	Cheto	S. Domingos Municipality	Environment Dept./ External	9973200
4	Mr.	Fernando Garcia da Veiga	Pina	João Teves	Farmer/ Local	9919900
5	Mr.	José Manuel Correia Freire	Manel di Mima	Assoc. Amo Bom	Farmer/Animal Raiser/ Local	9980452
6	Mr.	Nilton Borges G. de Pina	Nito	São Jorge	Ecotourism guide/ Local	9845443
7	Mr.	Gracindo M. Neves Marques	Arroz	MADRRM ¹ Technician	Extensionist & Farmer/ Local	9999899
8	Mr.	António Sanches de Pina	Toni	Assoc. Godim	Assoc. President/ Local	2681540
9	Mrs.	Luzia Vaz Baessa	Tereza	Assoc. Agro Cristóvão	Assoc. President/ Local	9828173
10	Mr.	Fernando da Veiga Pina	Fernando	MADRRM S. Domingos	Extensionist & A. Raiser/ External	2681616
11	Mr.	Otílio Tavares Fernandes	Otílio	Trainer Agriculture	Farmer/ Local	9833142
12	Mrs	Ângela Mendes	Fá	Assoc. Longueira	Animal Raiser/ Local	
13	Ms	Lígia Matos	Dji	DGASP/CFA ²	Inspector/Student	9934695
14	Mr.	Armando de Oliveira C. Silva	Akilino	Assoc. Órgãos Pequeno	Animal Raiser/ Local	2711375
15	Mr.	Carlos Alberto R. Gomes	Cá	Chã de Vaca (Assoc.)	Farmer/Animal Raiser/ Local	9967281
16	Mr.	Avelino Moreira Brito	Avelino		Farmer/Animal Raiser/ Local	9952311
17	Mr.	Ambrósio Leal	Ambrósio	MADRRM Del. S ^{ta} . Catarina	Technician/Student	9919466
18	Mr.	Emídio Lopes Tavares	Emídio	Assoc. Agro R ^a Seca	Teacher/Farmer/ Local	9936259
19	Mr.	Victor Lopes Varela	Victor	Assoc. Agro R ^a Seca	Farmer/Animal Raiser/ Local	9984801
20	Mr.	Alberto Carlos Tavares Pina	Cákas	OASIS	Technician/ Local	9929146
21	Mr.	Adilson de Jesus dos Santos	Ady	Assoc. Ó. Pequenos	Farmer/ Local	2711258
22	Ms.	Ernestina Lopes da Veiga	Titina	OMCV ³ S ^{ta} . Cruz	Agric., Health & Social/ External	9963993
23	Mrs.	Maria Odete Gomes	Odete	Assoc Agro Órgãos	SWC/ Local	2711753
24	Mrs.	Geralda Varela Semedo	Eufemea	Assoc Banana	Rainfed Agric Farmer/ Local	2681518
25	Ms.	Ana Vanilda T. Vaz	Vanilda	Assoc Banana	Business Women/ Local	9990486
26	Mr.	José da Costa Moniz	Didi	Assoc Banana	Bricklayer/Farmer/ Local	2681498
27	Mrs.	Malvina Monteiro	Malvina	Assoc Banana	Housewife/ Local	2681516
28	Mr.	Manuel Barbosa Afonso	Manel Afonso	MADRRM Repres. Sta. Cruz	Technician/ External	2691419
29	Mrs.	Maria da Conceição M. Baessa	Conceição	Assoc Amo Bom	SWC/ Local	2711728
30	Mr.	Jorge Pires Pereira	Yaya	Assoc. Órgãos Pequeno	Supervisor (Water Dist.) / Local	9999147
31	Mr.	Moisés Pereira Vaz	Zé	CIMSLO ⁴	Water and Sanitation/ External	9925782
32	Mr.	António Mendes Tavares	Tuna	Assoc Longueira	Forest Supervisor/ Local	9939154
33	Mr.	Eduardo Correia Fernandes	Zé	Assoc Covada	President Assoc/ Local	9969800
34	Ms.	Lenira Resende Costa	Lenira	INIDA	Researcher / External	2711127
35	Mrs.	Regla Amoroz	Regla	INIDA	Researcher / External	2711127

B) Background

¹ MADRRM = (Ministry of Environment, Rural Development and Marine Resources)

² DGASP/CFA = (general Directorate of Agriculture, Forest, and Animal Husbandry/Agriculture training Center)

³ OMCV = (Capeverdean Women's Organization)

⁴ CIMSLO = (Municipality of São Lourenço dos Órgãos)

The Ribeira Seca Watershed is located between the latitudes 15°07'40"N and 15°01'55"S and the longitudes 23°32'05"E and 23°38'40"W. It is administratively inserted within boundaries of 3 Municipalities: São Lourenço dos Órgãos (*where the major part of the watershed land is found, approximately 65%*), São Domingos (*approximately 10% and particularly the southern part of the watershed*) and Santa Cruz (*which contains approximately 25% of the watershed, that is, the lower part of the watershed*).

Ribeira Seca starts from the mountain massive of Pico de Antónia in the NW (*1394m of altitude*) in the central part of the island, and the mouth of the river is located in the East part, at sea level. It is the biggest watershed of Santiago, having a drainage area of 71,5 km² and a well developed hydrographical net of 18km long. The orientation is WE and it is placed between the watersheds of Picos, to the North, and São Domingos, to the South.

For several years, the Ribeira Seca Watershed has been a study area for various programs and projects in the fight against degradation of land and water. Some of those projects are: FIDA in 1994, ROSELT in 1994, PDH-INGRH in 2001, and the Quantification of Erosion at the Hydrographic Basin Scale since 2004. One of the reasons for the large interest for this watershed is that the land degradation is considered severe due to the practice of pluvial agriculture (*rainfed*), which facilitates and increases soil erosion, and the irrigated agriculture, which aggravates soil and water salinization downstream.

Due to the interesting results achieved in these projects, the socio-economic and ecological importance of the watershed (*it conglomerates all the Santiago bio-climatic areas*), and the severe population pressure upon the natural resources, Ribeira Seca was selected as a Hotspot for the DESIRE project.

The workshop was conducted upstream of the Ribeira Seca Watershed, particularly in Longueira sub-catchment, located at about 400 meters of altitude. Longueira sub-catchment is located at the SW part of the Ribeira Seca Watershed, with a drainage area of 4.18 km². In the North, it borders the Covada sub-catchment (1.65 km²), and in the South the Ribeirão Galinha sub-catchment (3.18 km²). It is populated by approximately 300 inhabitants, with a population density of 71.8 inhabitants per km².

The predominant **types of land use** are: forest area representing 60 % of the total sub-catchment area; cliff area representing 12 %; and agriculture and grazing area representing 28 % of the total area.

The main **types of land degradation** are: flash floods, rill and gully erosion, bad land use practices by removing the soil on steep slopes, which accelerates the water erosion, overexploitation of underground water causing the salinization of water and soil, etc. Generally speaking, the main constraining factors for soil and water conservation are the existent steep and lengthy slopes, the shallow soils with very low infiltration rates, and great extent areas of bare soils contributing greatly for the increase of water erosion during rainfall seasons. To the mentioned biophysical factors, also join up the human factors to the land degradation. In our specific case, we can enhance the overexploitation of firewood that contributes for the deforestation. This activity happens due to the weak economic and financial capacity of the majority of the resident population. Although most of them are aware that cooking their meals

with the firewood of the few existing trees have a negative effect on the environment, the poverty and their need speak louder, when it comes to the reality.

II Results and conclusions from sequences / exercises

Before actually starting the work, related with the content of the workshop, the moderators greeted all participants for their presence and availability in working towards a common objective, which is the preservation of the land. Immediately afterwards, the moderators made a small presentation of the DESIRE project, indicating the project objectives, the functions of each Workblock, and how they are linked. The objective of this presentation was solely to prepare the participants for the work to be carried out in the next three days.

As expected, the workshop was carried out in an excellent atmosphere, and the outcome may be considered positive, once both the stakeholders and the moderators were satisfied with the results.



Figure 1 - Presentation of Project DESIRE to stakeholders

1) Impact chains – chains that link causes and effects of land degradation

The first exercise of the workshop, was the photo gallery, where all participants, according to the instructions of the moderators, selected the photos portraying the problems that each one feels in their areas of activities or close to the community where they live. Then they selected a photo (*in some cases more than one photo*) portraying potential solutions for the problems that they face.

After this activity each one of them, in plenary, displayed and presented their problems, and how they think that these problems should be solved.



Figure 2 - Photos showing PROBLEMS



Figure 3 - Photos showing SOLUTIONS



Figure 4 - Plenary presentation of an Internal stakeholder



Figure 5 - Plenary presentation of an External stakeholder

At the end, this exercise oriented the moderators to introduce the next exercise, which dealt with the Biomass and the Water Cycles.

This exercise was conducted by the workshop moderators, who explained the participants, in the easiest and most comprehensive way, the importance of biomass and water cycles in the desertification process, and how they are linked to land degradation. The moderators decided on the interactive form, so that the participants could give their points of view on the subject. Thus the utilization of the photos, for better comprehension of the two cycles was very important. Although, in some details it was difficult to make illustrations (drawings or photos), the moderators tried and with great success were able to transmit the ideas. It ought to be mentioned that the participants, were free to intervene and make comments, while the moderators were explaining the importance of water and biomass cycles regarding the production.

After having explained the process of both the cycles, an overview was given to the participants of the field work to be undertaken on the following day, showing them the transects (*biomass & water transects*), and everything that we should pay attention to, on the field. Afterwards, the group was divided into two, according to their activities and interests, so that the following day no time would be lost in the departure to the field.



Figure 6 - Moderator (Jacques Tavares) explaining the Biomass Cycle

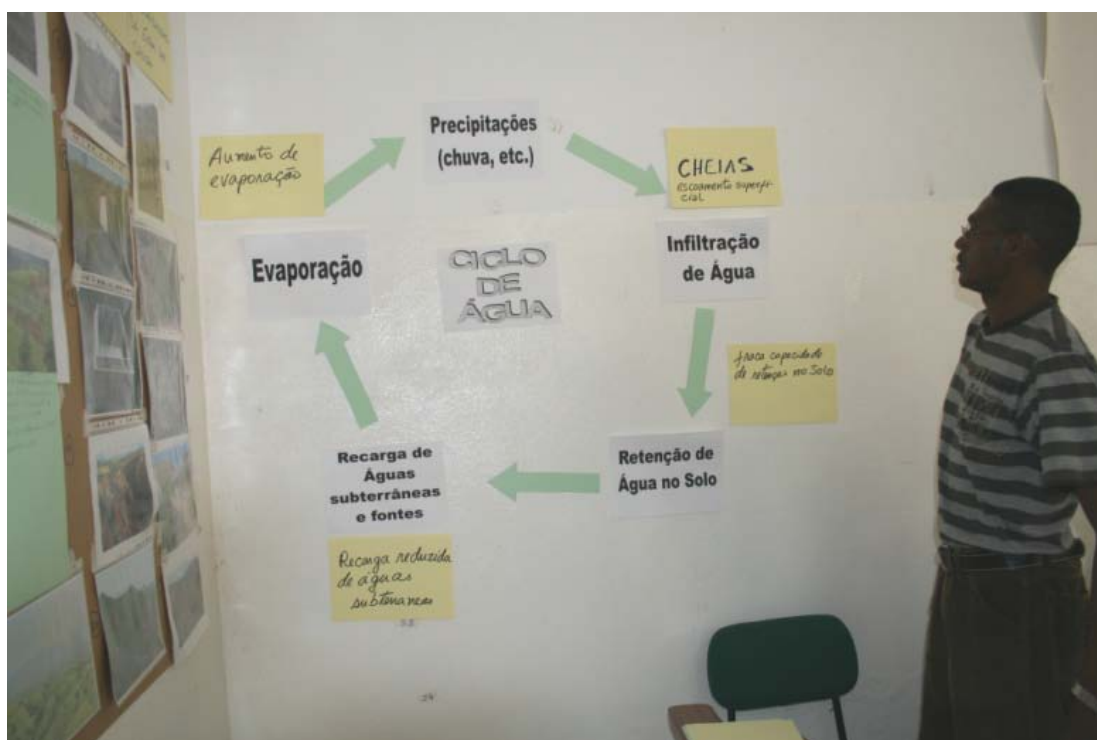


Figure 7 - Moderator (Amarildo dos Reis) explaining the Water Cycle



Biomass Cycle – Ribeira Seca

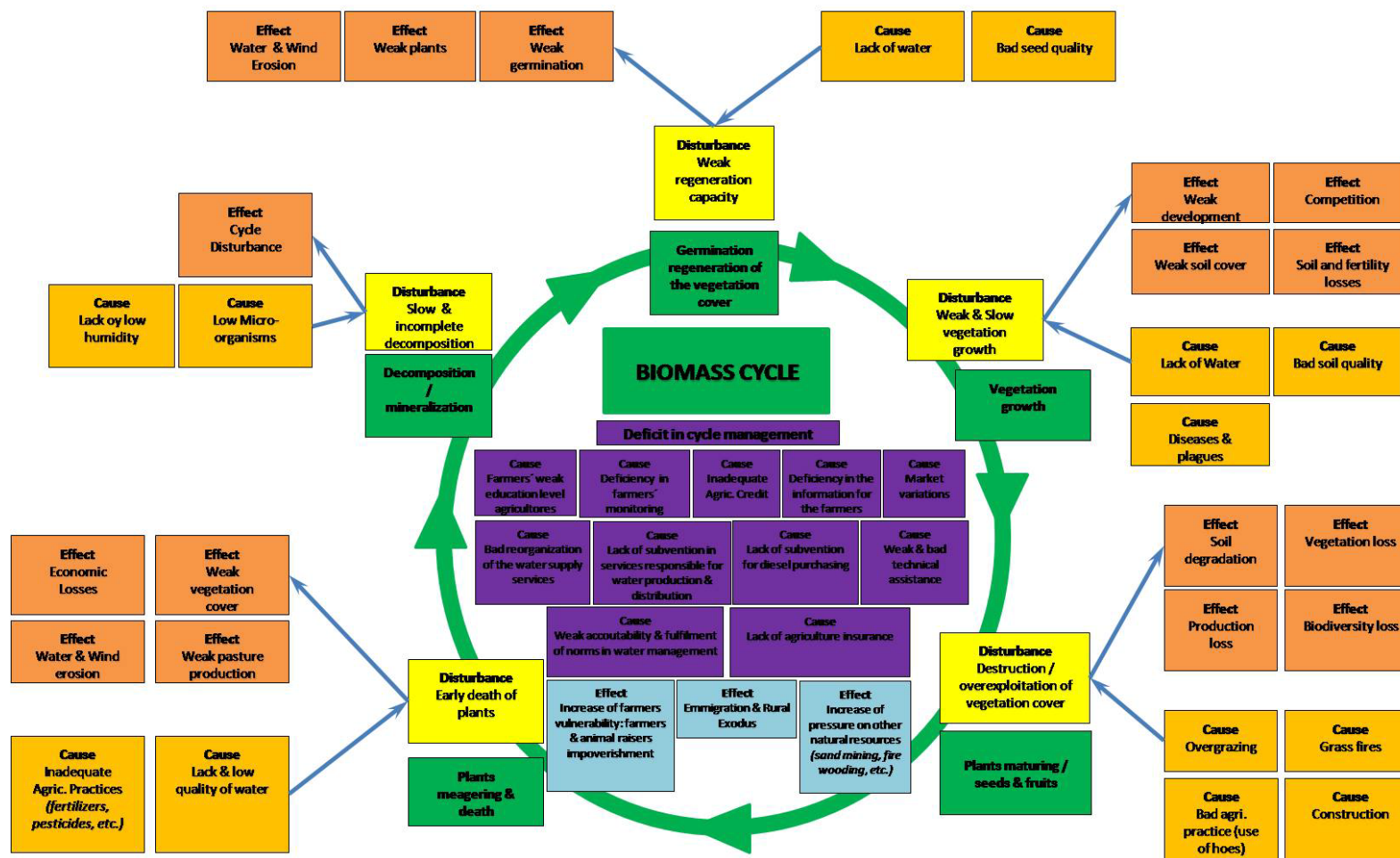


Figure 12 - Biomass Cycle of Ribeira Seca

Water Cycle – Ribeira Seca

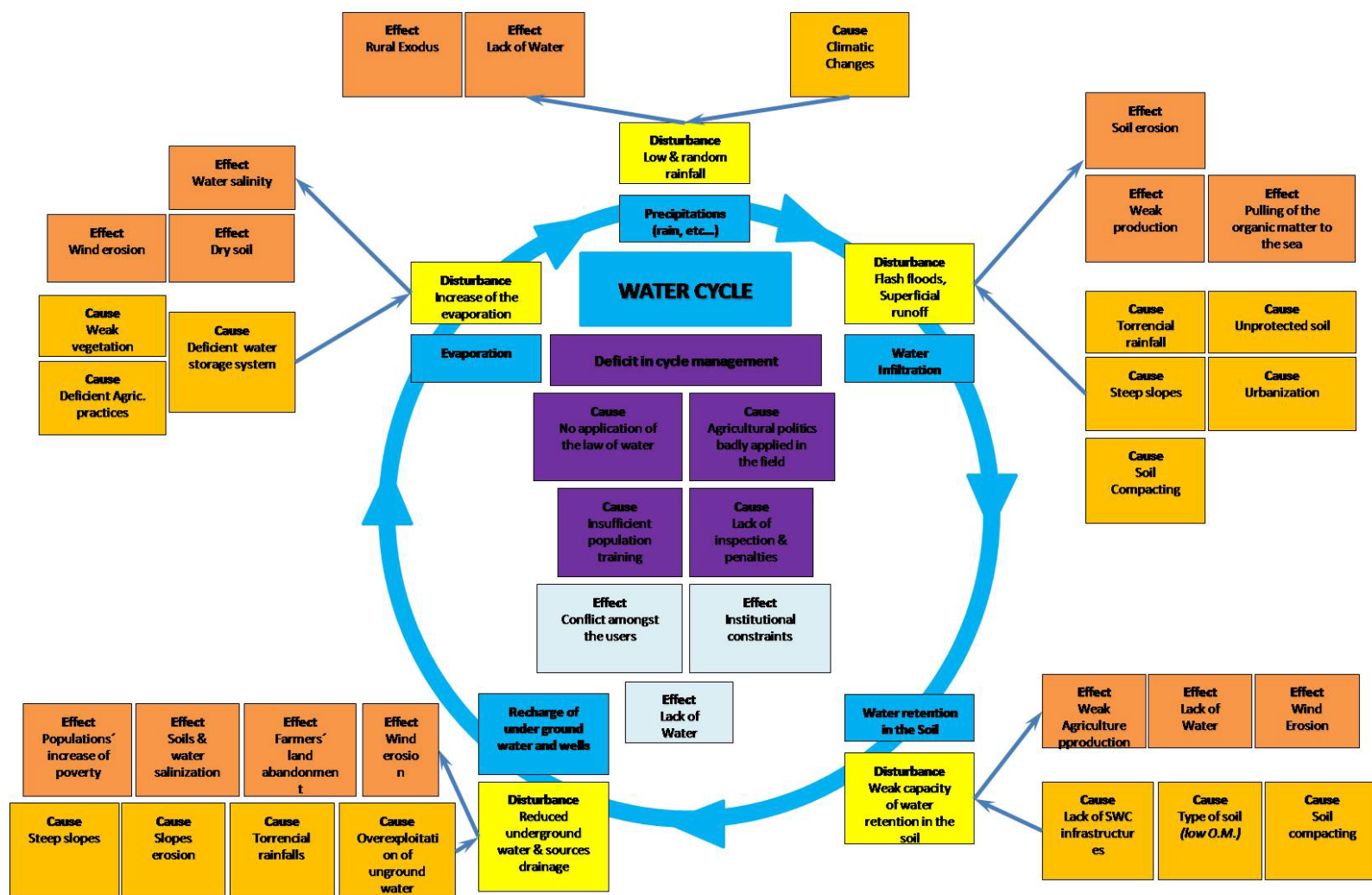


Figure 13 - Water Cycle of Ribeira Seca

2) List of local indicators for land degradation and conservation

Indicator	Used by (stakeholder group)
Soil erosion (ridges, ravines, topographic degradation)	Local
Soil Stability	Local
Vegetal cover (changes)	Local
Land use (bad agriculture practice)	Local
Salinization (soil & water)	Local
Water (decrease in availability & quality)	Local
Increase in population	Local/External

OBJECTIVES (Eliminate/Reduce Disturbances in the Cycles)	APPROPRIATE TECHNOLOGIES (What?)	MOST ADEQUATE APPROACH (How?)	RESPONSIBLE STAKEHOLDERS (Who?)	MONITORING & EVALUATION (Who)
<ul style="list-style-type: none"> increase production decrease erosion and desertification increase quality of life 	1. Slopes and riverbed protection	<ul style="list-style-type: none"> Participatory 	<ul style="list-style-type: none"> Local Community 	<ul style="list-style-type: none"> MADRRM; Associations; C.Ms⁵
<ul style="list-style-type: none"> increase knowledge level increase of production increase of performance 	2. Training & sensitization	<ul style="list-style-type: none"> Accessible Language 	<ul style="list-style-type: none"> Local Community 	<ul style="list-style-type: none"> MADRRM; General Direction of Adult Alphabetization / Education
<ul style="list-style-type: none"> increase of production decrease of poverty decrease the level of rural exodus (<i>in the past many people moved to the city because of the drought, and now other activities not related to agriculture or animal raising are being developed to keep the population in their own communities</i>) decrease emigration 	3. Longueira Dam Construction		<ul style="list-style-type: none"> Community living upstream of R^a Seca 	<ul style="list-style-type: none"> MADRRM; Associations; CMs Researchers
<ul style="list-style-type: none"> increase products of animal origin National product valorization decrease of importation increase of the animal raisers' income 	4. Improvement of animal production	<ul style="list-style-type: none"> Animal raisers Training Technical Assistance Production factors (<i>animal feed, improved breeds, pasture, etc.</i>) 	<ul style="list-style-type: none"> Local Community; population, and consumers 	<ul style="list-style-type: none"> MADRRM; Researchers; Associations; NGOs; CMs

⁵ CM = (Municipalities)

OBJECTIVES (Eliminate/Reduce Disturbances in the Cycles)	APPROPRIATE TECHNOLOGIES (What?)	MOST ADEQUATE APPROACH (How?)	RESPONSIBLE STAKEHOLDERS (Who?)	MONITORING & EVALUATION (Who)
<ul style="list-style-type: none"> Fulfillment of Laws increase of inspection 	5. Institutional and Legal Capacity Strengthening	<ul style="list-style-type: none"> Training of inspectors Population Sensitization 	<ul style="list-style-type: none"> Population 	<ul style="list-style-type: none"> MADRRM; MIT⁶; Researchers; NGOs; CMs

3) List of stakeholders and their influence and interest in regard to sustainable land management

Stakeholder / stakeholder group	<u>Influence on the sustainability of land use?</u>	<u>Motivation / interest in the implementation of sustainable land management?</u>	Comments
Farmers	Very Weak	Very Strong	The farmers have a very low influence on the sustainability of the land use, because most of the land belongs to the Government or private institutions (<i>mostly belonging to the Church</i>). Also their low financial power limits them to undertake some SWC works (<i>maintenance and rehabilitation of the infrastructures</i>)
Animal Raisers	Very Weak	Very Strong	Idem for the animal raisers
Producers (Agro-products)	Medium	Very Strong	
Community's Associations	Strong	Very Strong	Incentive for Associations' creation, and legalization, so that they are able to officially negotiate with the government and other potential partners
Municipalities	Very Strong	Weak/Medium	
NGOs	Strong	Very Strong	
Researchers/Technicians	Weak/Medium	Very Strong	
Students	Weak	Very Strong	

⁶ MIT = (Ministry of Infrastructures and Transportation)

4) Selection and appreciation of locally applied technologies and approaches (→ results from Ex. 7)

This table was supposed to be filled in, separately for different stakeholders (*external and internal*). However due to our reality, and the nature of the participants' involvement in the workshop, and the time constraints it was agreed that both group of stakeholders, should work together to produce this outcome.

4.1. Evaluation made by local and external stakeholders:

Appropriate Technology	Already applied or potential solution?	On land use type (e.g. crop land / grazing land, etc.)	Labor required (initial and maintenance)	Costs (initial and maintenance)	Impact/Effectiveness						Limiting factors / constraints	Who will implement	Overall assessment of the potential for the local context
					economic		ecologic		socio-cult.				
					ST	LT	ST	LT	ST	LT			
1. Slopes and riverbanks protection and rehabilitation of SWC infrastructures (contour ridges, contours stone walls, check dams, etc)	Being applied	Rainfed and irrigated agriculture, and pasture	high	high	++	+++	+++	+++	++	+++	Rainfed Agriculture	Associations; CMs; MADRRM	More sensitization
2. Environmental issues training and sensitization for farmers, animal raisers, associations, communities, and representatives of Ministry of Agriculture, Municipalities, and schools	Partially applied	—	Medium / high	Medium	++	+++	+++	+++	++	+++	Education level Resistance to change	MADRRM; NGOs; medium	More information sensitization
3. Construction of a small dam located at Santa Maria / Longueira	Potential solution	Irrigated Agriculture	high	high	+++	+++	+++	+++	+++	+++	Technical Studies	Associations; CMs; MADRRM; NGOs	
4. Improvement of animal productivity and production	Potential solution	Pasture	Medium	Medium	+++	+++	+++	+++	++	+++	Agrarian Cultural	MADRRM; Associations	Sensitization
5. Institutional and legal capacity strengthening (techno professional)	Partially applied	—	Low/ Medium	Medium / high	0	++	+++	+++	++	+++	Political Financial	Government	Sensitization

Legend:

ST = short term

Labor: very low, low, medium, high, very high

Impact/effectiveness: +++ (very positive), ++ (positive),

- (rather negative), -- (negative),

LT = long term

+ (rather positive), 0 (medium),

--- (very negative)

Comment to Table 4.1 by A. dos Reis: This column was filled with the result of the stakeholders' works during workshop. However, during our meeting in Bari, Italy, we noticed that it would not be possible to make a good evaluation, and (in Bari), we agreed that the 2nd Workshop would necessarily start by detailing these technologies with stakeholders contribution. At this moment, we think we should not modify these achieved results without the stakeholders' contributions, otherwise the works done during the workshop will be destroyed.

4.3 List of technologies / approaches to be evaluated by WOCAT methodology (result from Ex. 7)

APPROPRIATE TECHNOLOGIES	MOST ADEQUATE APPROACH
1. Slopes and riverbed protection	<ul style="list-style-type: none"> • Participatory
2. Training & sensitization	<ul style="list-style-type: none"> • Use of adequate language during these activities for better comprehension of the subject (<i>use of local language, maximize the utilization of photos and images, field trips, experience exchange with other communities, dissemination of information through radio & TV broadcast, brochures, posters, etc.</i>)
3. Longueira Dam Construction	
4. Improvement of animal production	<ul style="list-style-type: none"> • Animal raisers Training • Technical Assistance • Production factors (<i>animal feed, improved breeds, pasture, etc.</i>)
5. Institutional and Legal Capacity Strengthening	<ul style="list-style-type: none"> • Training of inspectors • Population Sensitization

4.4 Draft outline of a strategy for sustainable land management (Ex. 8)

The strategy for sustainable land management can be set in many different ways, according to the defined goals. As is obvious, different stakeholders have set different goals, according to the purposes that best suit their activities.

Once land degradation and desertification is a common concern among stakeholders and land users, the strategies for a sustainable land management identified and defined in the workshop, were unanimous among the participants. In the discussion it was enhanced the strategies based on the natural resources (*where the majority of the population directly depends on the surrounding natural resources, such as, the agriculture of subsistence, animals husbandry, etc.*), the strategies not based on the natural resources (*the small traders, drivers, etc.*), and institutional strategies (*as for example the laws, and regulations imposed by the Municipalities*). This way, after a fruitful discussion, the following strategy was outlined in a joint effort:

- Preservation & maintenance (*of the fragile ecosystem and infrastructures of Soil and Water Conservation*)
- Increase (*of infrastructures of SWC and the perimeter of the vegetation cover*)
- Management of existing natural resources (*rain water & and forest perimeter of Longueira*)
- Promotion of activities not related to agriculture for women and youth (*rabidantes⁷, professional training, etc.*)
- Application of existing laws (*water conservation and management laws, land use laws, and natural resources conservation laws, etc.*)
- Increase inspection (*on natural resources, and water usage*)

⁷ “Rabidantes” is the local term WOMEN TRADERS! Some them are assisted by small micro credit programs.

III Evaluation of the workshop (Ex. 9)

Below, an evaluation table, which shows the score for each item, as well as the average overall score of the workshop. We ought to mention that the evaluation was done at the end of the last day of the works, due to the daily load of work. Also, for reasons beyond our control, some participants were forced to leave before they fill out the evaluation form made available.

WORKSHOP FINAL EVALUATION BY THE PARTICIPANTS																
		Programatic Content & Logistics														
		Participants														
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	Average
1	Workshop presentation	6	6	4		5	6	5	5	6	5	4	6	6	5	5,30
2	Work Methodology	5	5	6		6	5	6	6	5	5	6	5	5	5	5,38
3	Development level of presentation/moderation	4	5	5		6	5	5	4	6	4	5	5	6	4	4,92
4	Adequacy to participants level of knowledge	5	5	5		4	6	4	6	6	5	4	4	5	4	4,84
5	Capacity to stimulate interests/participation of the stakeholders	4	6	4		6	6	5	6	5	5	5	6	6	4	5,23
6	Rhytm of work demanded to the participants	5	6	4		5	6	5	4	6	5	6	6	6	4	5,23
7	Pertinence/Interests of the issue	4	6	5		6	6	5	6	6	5	4	5	5	5	5,23
8	Definition/Clarity of the issue	6	5	5		6	6	5	5	6	5	5	6	6	6	5,53
9	Aplicability to contexts of present or future works in the study area	5	6	6		6	6	6	5	5	4	4	6	4	5	5,23
10	Contribution to your personal and professional objectives	4	5	5		5	6	6	5	5	5	4	6	5	4	5,00
11	Level of Learning	5	5	5		4	4	5	4	5	4	4	6	4	4	4,53
12	Achieved Results	6	6	4		6	5	4	6	6	5	5	5	5	4	5,15
13	Logistics (transport, meals, etc..)	4	4	6		6	5	4	5	6	5	6	4	5	6	5,07
		Overall Score														5,13

1	Bad
2	Low
3	Medium
4	Good
5	Very Good
6	Excellent

- By the moderator(s)

The evaluation that may be made of this workshop is that, overall, it was very beneficial, once the involvement of the participants was at its higher level. Sometimes the moderators were simply spectators of the discussions. We believe we have approached the issues with much clarity and details so that all the participants, independently of their level of education, could understand the contents. During the three days of work, the moderators had made some adaptations to the initial program of work, due to the scarcity of time, on the part of the stakeholders, who are self-employed workers and have to return home at the end of the day to carry out some of their own activities.

IV Other information

Difficulties encountered:

It was a difficult task, to hold every participant to work the entire day. Some of them were forced to leave earlier because they have to undertake their daily activities.

Changes made concerning the procedure suggested in the workshop guidelines:

Some changes were made to the suggested guidelines in order to better adapt the work to our reality:

- The assessment of technologies was done together, since the stakeholders wanted to share their ideas (*instead of separating internal & external stakeholders*);
- Instead of working the Biomass and Water Cycles chart on the field, we moved it to the room, due to the unfavourable working conditions in the field (*too windy, and too hot*);
- The evaluation by the participants was done at the end of the last working day, mainly for lack of time;

How was the interest and participation of the different stakeholder groups in the workshop?

As previously stated, the working atmosphere was great, and the level of participation of the different stakeholders was very high, notwithstanding some of them accused some fatigue towards the end of the day.

Recommendations:

In order to keep the working spirit we suggest that the participants be motivated with a stipend, because everyone of them have their routine activities (*farming, feeding the animals, etc.*), and leaving home for three consecutive days in the morning and returning late afternoon, without any visible return will make it difficult for them. In some cases, they paid someone else to do their routine activities while they attended the training sessions.

Comments:

N/A

STAKEHOLDERS WORKSHOP I
DESIRE Project
March 4-6, 2008
Location: CFA – Agriculture Training Center
WORKSHOP PROGRAM

Day 1**8:45 – 16:30 hrs.**

- 1) Welcome to participants /stakeholders
- 2) Presentation of DESIRE project and the Study Area
- 3) Presentation of the Workshop Program and Objectives
- 4) Participants/stakeholders presentation
- 5) Coffee Break
- 6) Exercise nr. 1: Photo Gallery
 - a) Analysis of land degradation and conservation through photos
- 7) Exercise nr. 2: Introduction to Cycles
 - a) Presentation/Lecture on Biomass and Water Cycles
- 8) Lunch Break
 - a) Discussion around 2 (two) great issues: Good production, and connection between the 2 (two) cycles
 - b) Conclusion
 - c) Presentation of the field transects biomass and water cycles transects)

Day 2**8:45 – 16:30 hrs.**

- 1) Field work (each participant picks up their snack box)
 - a) Objectives:
 - i) Observe, discuss, and take notes of the degradation symptoms affecting the cycles, causes and effects on the environment and the population;
 - ii) Observe, discuss, and take notes of the solutions of the identified symptoms; prevention measures, SWC practices, potential solutions, etc.
- 2) Arrival from the field
- 3) Lunch Break
 - a) Printing of the photos taken on the field
 - b) Each group reconstitutes their new cycles using the photos taken: **problems, causes, effects and solutions**
- 4) Approach and identification of legal, institutional and socio-economic aspects that benefit or detriment the sustainable management of the land
 - a) Inventory in plenary the aspects/factors
 - b) Solution to solve the negatives aspects
 - c) Conclusion

Day 3**8:45 – 16:30 hrs**

- 1) Exercise nr. 3: Solutions/Technologies for a good land management
 - a) Objectives:
 - (1) Choose 3-5 solutions/technologies per cycle, by consensus or by vote

- (2) Each group (Biomass and Water) picks their packages of solutions and analyze the approaches that follows each solution, according to a prepared model
- 2) Exercise nr. 4: Configuration of sustainable management strategy
 - a) Appropriate Technologies (What?)
 - b) Objectives (eliminate or reduce the cycles disturbances)
 - c) Adequate approaches (How ?): INERF⁸ + Municipalities + Associations + Population + NGO
 - d) Responsible Stakeholders (Who?)
 - e) Monitoring & Evaluation (Who and How)
 - 3) Exercise nr. 5: Interests and Influences of the stakeholders
 - a) Inventory of different stakeholders
 - b) Classify the influence and motivation of the stakeholders
 - c) Fill the model
 - 4) Exercise nr 6: Workshop Evaluation & Closure

⁸ INERF = *(National Institute of Rural Engineering and Forest)*