



Report and synthesis on second stakeholder workshops WP 3.3

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Deliverable 3.3.3

Report and synthesis on second stakeholder workshops (WP 3.3)



Photo: Gudrun Schwilch

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Contents

1. Introduction	1
1.1 <i>Background</i>	1
1.2 <i>Objectives and contents of WP 3.3</i>	1
2. Workshops at the study sites	3
2.1 <i>How the WB3 / WP3.3 methodology was used</i>	3
2.2 <i>Workshop participants</i>	3
2.3 <i>Duration of workshops</i>	4
3. Results from the single steps	5
3.1 <i>Step 1: Review and adjustment of objective(s)</i>	5
3.2 <i>Step 2: Identification of options</i>	6
3.3 <i>Step 3: Identification of relevant criteria for evaluation</i>	9
3.4 <i>Step 4: Scoring the options</i>	11
3.5 <i>Step 5: Criteria ranking</i>	14
3.6 <i>Step 6: Analysis and interpretation</i>	14
3.7 <i>Step 7: Prioritisation of options – negotiation and decision making</i>	17
3.8 <i>Step 8: Embedding into the overall strategy and seeking a commitment</i>	20
4. Workshop evaluation	21
4.1 <i>Workshop atmosphere and stakeholder participation</i>	21
4.2 <i>Workshop methodology</i>	21
4.3 <i>The WOCAT database</i>	21
4.4 <i>The Facilitator Software</i>	21
4.5 <i>Recommendations from study sites</i>	21
5. Strengths, weaknesses and challenges	23
5.1 <i>Strengths</i>	23
5.2 <i>Weaknesses</i>	23
5.3 <i>Challenges</i>	24
6. Annex 1: List of stakeholder workshop reports	25
7. Annex 2: Table of technologies selected throughout WB3	26

1. Introduction

1.1 Background

The DESIRE WB3 methodology was developed by the Centre for Development and Environment (CDE), University of Bern, Switzerland and consists of three parts (work packages):

- Part I: Stakeholder Workshop 1: Identification of existing and potential prevention and mitigation strategies (WP 3.1)
- Part II: Assessment of Conservation Strategies: Assessment and documentation of existing and potential prevention and mitigation strategies (WP 3.2)
- Part III: Stakeholder Workshop 2: Selection and decision on prevention and mitigation strategies to be implemented (WP 3.3)

→ **The current report covers the analysis and synthesis of stakeholder workshops conducted in Part III (WP 3.3) of the WB3.**

After having developed draft guidelines for WP 3.3, a training workshop was held in Bari, Italy from March 31 to April 3, 2008, in which representatives participated from all study sites except China, Crete, Nestos and Mexico (for more details see DESIRE Workshop and Meetings Report No. 18). After the training, the methodology was once more revised, and finalised (see DESIRE Manuals and Training Guides, Report No. 17).

The following is a compilation and analysis of the results from the 2nd stakeholder workshops conducted in the DESIRE study sites. Workshop moderators were provided a template for workshop reports and had to document the results from the single exercises and the final workshop evaluation. These workshop reports are the data basis for this analysis, i.e. we did not consult additional material such as study site descriptions etc.

1.2 Objectives and contents of WP 3.3

The following is a brief recapitulation of objectives, target groups and other important aspects related to the second participatory stakeholder workshop (for more details please see the methodological guidelines, DESIRE Manuals and Training Guides, Report No. 17).

In the context of the DESIRE project the stakeholder workshop approach was selected to **initiate collaboration** of SST with relevant stakeholders in their study sites.

Overall goal of WP 3.3 is:

To select promising (existing and potential) strategies for land conservation to be tested / implemented in the selected study sites.

Objectives:

1. To jointly select 1-2 options (mitigation strategies) from the WOCAT database to be implemented / field-tested in the selected study sites in the context of DESIRE WB 4.
2. To strengthen trust and collaboration among involved stakeholders.

Contents of the workshop:

- Definition of options (mitigation strategies) for the local context.
- Identification of relevant criteria to evaluate the different options.
- Scoring the options.
- Creating a hierarchy and ranking criteria.
- Analysis and prioritizing of options. Decision on 1-2 options to be test implemented.
- Embedding the options into the overall strategy.

Target groups of the 2nd stakeholder workshop are the same as in the 1st workshop (WP 3.1).

- a) **local stakeholders** (land users, representatives of local authorities, local NGOs etc.) who live in the specific rural environment (*local participants*); and
- b) **external stakeholders**, i.e. researchers and development professionals (from NGOs, GOs etc.) working in rural environments (*external participants*), with different degrees of professional expertise on environmental and development issues.

The 2nd workshop builds on the analysis and discussions made in stakeholder workshop 1; thus it is important, that the same stakeholders participate in the 1st and the 2nd workshop!

The **workshop duration** was suggested to be at least 2 days to give enough time for the learning process to evolve and for intensive discussion and interaction between different stakeholders.

The methodology consists of three main elements:

1. A **participatory approach** has been chosen to guide and lead the workshop participants through the process of evaluation and decision-making.
2. The options or strategies of land conservation from which to choose are derived from the **WOCAT database** into which locally applied options have been entered in WP3.2.
3. The single steps of the evaluation and decision-making process are supported by a **Multi Objective Decision Support System (MODSS) software**.

During the workshop, the software will be run on a computer at the background. If possible, use a beamer for projection.

The workshop programme follows a logical and consecutive sequence of **steps**, each with its own objectives, method, procedure, and expected results.

Table 1: Sequence of steps (workshop methodology)

Steps	Objectives
Step 1: Review and adjustment of objectives	<ul style="list-style-type: none"> • To recall and refresh main discussions and results from the first stakeholder workshop • To decide on which objectives to focus on for the selection of options that will be implemented later
Step 2: Identification of options	<ul style="list-style-type: none"> • To identify with the help of the WOCAT database a range of options (technologies and approaches) that fit the selected objectives • To visualize the potential options
Step 3: Identification of relevant criteria for evaluation	<ul style="list-style-type: none"> • To identify and agree on a set of 9-12 criteria (ecological, economic, and socio-cultural) per objective, relevant for the local context, along which the different options can be evaluated.
Step 4: Scoring the options	<ul style="list-style-type: none"> • To assess for each option, to which extent it fulfils the different criteria identified in step 3, i.e. to assess the options by the criteria
Step 5: Creating a hierarchy and ranking criteria	<ul style="list-style-type: none"> • To organise criteria in a hierarchical order
Step 6: Analysis and interpretation	<ul style="list-style-type: none"> • To visualise the relative merits of the different options • To interpret the results
Step 7: Prioritising of options – negotiation and decision making	<ul style="list-style-type: none"> • To find a final agreement on which option should be selected for test-implementation in the study site
Step 8: Embedding into the overall strategy	<ul style="list-style-type: none"> • To refine the overall strategy and to ensure that the options selected for test-implementation fits in and framework conditions are considered
Workshop evaluation	<ul style="list-style-type: none"> • To evaluate contents, methodology, and results of the workshop

Workshops at the study sites

1.3 How the WB3 / WP3.3 methodology was used

Table 2 gives an overview on how the different study sites used the WP3.3 methodology.

Table 2: Overview on how the WP 3.3 methodology was used

	Study site	How was WB3 methodology used?	comments
1	Spain	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
2	Portugal, Maçao / Góis	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
3	Italy	Own approach of stakeholder consultations used	Not considered for synthesis
4	Greece, Crete	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
5	Greece, Nestos Basin	<ul style="list-style-type: none"> Own methodology (training seminar), partly with elements from the guidelines 	Only partly considered for synthesis
6	Turkey, Karapinar	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
7	Turkey, Eskisehir	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
8	Morocco	<ul style="list-style-type: none"> According to guidelines, some adaptations: <ul style="list-style-type: none"> 1 day WS Didn't use Facilitator Software in the workshop Skipped step 8 	
9	Tunisia	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
10	Russia, Djanybek	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
11	Russia, NovySaratov	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	
12	China	<ul style="list-style-type: none"> According to guidelines; some adaptations: <ul style="list-style-type: none"> Started reviewing the cycles etc. as many participants were new (but came from the same organisation) WS duration 4 days 	
13	Botswana	<ul style="list-style-type: none"> According to guidelines; minor adaptations Combined step 3 and 5 (selection and ranking of criteria) 	
14	Mexico	Own approach of stakeholder workshops	Not considered for synthesis
15	Chile	<ul style="list-style-type: none"> According to guidelines, some adaptations: <ul style="list-style-type: none"> 1 day WS Didn't use Facilitator Software 	
16	Cape Verde	<ul style="list-style-type: none"> According to guidelines; minor adaptations 	

1.4 Workshop participants

The workshop guidelines stress the importance of inviting the same people to this workshop as have been participating in the first stakeholder workshop because the 2nd workshop builds on the analysis and discussions made in stakeholder workshop 1.

Table 3: Participants of 2nd stakeholder workshops

	Study site	Total	% of participants already participated in WS1	men	women	Local	External	Farmers	comments
1	Spain	15	73%	11	4	12	3	8	
2	Portugal	12	58%	8	4	10	2	1	
4	Greece, Crete	8	n.a.	?	?	2	6	2	strongly reduced No. of participants compared to WS1
5	Greece, Nestos Basin	11	55%	11	0	8	3	5	much smaller No. of participants compared to WS1 (despite having invited the same plus additional people)
6	Turkey, Karapinar	22	50%	22	0	16	6	16	
7	Turkey, Eskisehir	17	82%	15	2	10	7	10	strongly reduced No. of participants compared to WS1
8	Morocco	30	37%	22	8	12	18	4	
9	Tunisia	28	93%	22?	6?	18	10	13	
10	Russia, Djanybek	17	76%	11	6	5?	12?	3	Local – external not clear!
11	Russia, Saratov	24	25%	22	2	10?	14?	4	Local – external not clear!
12	China	14	7%	12	2	10	4	3	Only 1 person who attended WS1, the rest are new
13	Botswana	18	61%	11	7	15	3	12	all E are researchers
15	Chile	22	52%	15	7	?	?	9	Local – external not clear!
16	Cape Verde	28	89%	22	6	18	10	9	Good mix of stakeholders

E = external participants

L = local participants

WS = workshop

Changing participants from WS1 to WS2: In some study sites, the majority of workshop participants are different from those in WS1, which is problematic because it is difficult to follow up discussions from WS1, and the new participants lack this basis for making a sound decision on which strategy to select for test-implementation. This **puts the coherence of the process at risk**. Reasons for this discontinuity are manifold, among them: high turn-over of staff in institutions; institutions send whomever they think should participate; loss of interest of some individuals; bad timing of the workshop and time constraints of participants.

1.5 Duration of workshops

Most study sites conducted a 2 day workshop. Exceptions are Morocco, Greece - Nestos and Chile with a 1 day workshop, Cape Verde with 3 days and China with a 4 day workshop (this was necessary as only one participant has been participating in workshop1). Compared to workshop 1, more sites followed the suggestion of the guidelines.

2. Results from the single steps

In the following we will present the results from the single steps, as shown in table 1.

2.1 Step 1: Review and adjustment of objective(s)

The three parts of the WB3 methodology interconnect and together lead through a coherent process from collaborative learning to jointly selecting strategies for test-implementation. This first step in the 2nd stakeholder workshop intends to recall and link again with discussions and results of stakeholder workshop1 in order to promote coherence and continuity in the whole process. Therefore, the objectives identified in Exercise 8 of the 1st stakeholder workshop (see DESIRE deliverable 3.1.2) are the basis for continuing the process in workshop 2. However, they need to be reviewed and might need to be refined or adjusted for properly guiding the coming assessment and selection process.

In 5 out of 14 study sites Exercise 8 has not been conducted during the 1st stakeholder workshop. So, these study sites had to define the relevant objective(s) on another basis.

Comparing the objectives identified in workshop 1 and those used during workshop 2 we find:

- That in about 4 study sites, the objectives were the same;
- In most cases, the objectives that guided the selection process in workshop 2 are formulated more generally or broader than those coming out of workshop 1;
- In some cases, what was called an objective is in reality a measure;
- From the workshop reports of many study sites it is not obvious whether the objectives selected for guiding the selection process are related to the results of the first workshop (i.e. whether these results have been used as a basis or not) or whether a link has been made to workshop 1.

The objectives focus on the following issues:

Table 4: Objectives as selected at the study sites

Issue	Objectives	Study site
Protecting natural resources	Land management practices for protecting natural resources	Greece – Crete
	Land resources conservation	Chile
Mitigate land deg / desertification	Mitigate land degradation and desertification effects	Cape Verde
Develop agriculture	Sustainable development of agriculture	Morocco
Soil conservation	Reduce soil erosion	Spain
	Increase soil fertility	Spain
	Soil quality conservation against salinisation and water erosion	Russia - Novy
	Soil conservation against water erosion	Russia - Djanybek
	Protection of dry-farming areas from water erosion	Turkey - Eskisehir
	Water and soil conservation	Tunisia

Issue	Objectives	Study site
Water conservation	Reduce water loss	Spain
	Improvement of water mobilization and management	Cape Verde
	Reduce water loss	China
	Fresh water conservation and effective use	Russia - Djanybek
	Water and soil conservation	Tunisia
	Prevention of rapid drop in groundwater table	Turkey - Karapinar
Mitigate salinization	Soil quality conservation against salinisation and water erosion	Russia-Novy
	Reclamation of saline and sodic soils	Greece - Nestos
Forest protection	Reduction of burned area	Portugal
	Reduce the depletion of trees	Botswana
Pasture protection	Mitigate wind erosion on pasturelands	Turkey – Karapinar
	Rehabilitation of pasturelands	Turkey - Eskisehir

Result of Step 1

The expected results were 1) that participants are up to date and can follow-up the discussions from WS1, and 2) to agree on 1-2 objectives as a basis for selecting options for test-implementation.

On the basis of the available workshop reports it is difficult to assess to which extent links to discussions and results from WS1 have explicitly been made. The reports hardly contain information on discussions that took place during the workshop. All study sites were able to define one (or several) objectives to guide the assessment and selection process. In about 4 sites the objective was identical to what was identified during the 1st workshop; in quite a number of sites the objective became more general. In yet other cases it is unclear how exactly the objective was identified.

2.2 Step 2: Identification of options

Source of options

As described in the guidelines, the workshop moderators had to do some preparatory work for step 2, which included a search in the WOCAT database on SLM technologies in order to retrieve a limited number of potential options fitting both the local context and the main objective. At that moment, according to the planning of WB3, all technologies and approaches the study sites had documented in WP3.2 should have already been entered into the database, and as a logical consequence, could have possibly been part of such an option list. Unfortunately, most study sites did not manage to enter their own data on time, i.e. before their second stakeholder workshop, which resulted in a limited number of potential options available in the database. Nevertheless, the local options were everywhere part of the range of options from which to select. Though, in Turkey (both sites) only external options were considered.

Actually, not all study sites did include options from outside their own context, i.e. from other countries. For some sites just nothing suitable was available from the WOCAT database, e.g. for Portugal with the specific degradation problem of forest fires. Others considered the available options as not sufficient, not applicable or not advanced enough for the socio-economic conditions of their study site. It is certainly true that the WOCAT database still only contains a limited number of case studies and therefore is not in a position to propose a range of alternatives for each and every specific context. This was obviously a constraint for some study sites. However, that solutions coming from so called under-developed countries are not relevant for so called developed countries is not necessarily true and is often an unquestioned prejudice. These measures are generally well-tested, cheap and adaptable to different contexts.

The database would certainly have contained more suitable options for the Mediterranean context of DESIRE, if all sites would have entered their documented technologies and approaches in time. This was the original idea and intention in order to provide exchange of knowledge among all sites, but was unfortunately not achieved, because at the time most stakeholder workshops were held, only data from Spain was already included into the database. Still, the local options promoted in stakeholder workshop 1 were available for selection in stakeholder workshop 2 (although not accessible for other sites).

It is remarkable that in many study sites, the options agreed upon during WS1 were not maintained for the selection process during WS2, but new options added (see table 5). In a number of sites, these new options came partly from the WOCAT database, partly from other sources. In fact, for many study sites we don't know, where these new options came from, or at least it was not mentioned in their workshop report.

The Chilean study site included options from a list of technologies promoted by the Incentives System for the Recovery of Degraded Land (SIRSD) in the interior drylands of Chile. Their decision on what technologies to present was based on a comparison of the most required practices from the list of the SIRSD and the technologies selected in workshop 1.

Table 5: Technology options assessed in the 2nd stakeholder workshop compared to those selected in the 1st stakeholder workshop

Study site	Of the technology options agreed upon in WS1 the following number was ...		Number of newly added options	Total number of options assessed in WS2
	retained for assessment in WS2	dropped		
Spain	5	0	3*	5
Portugal	2	0	2	4
Greece – Crete	4	0	1	5
Greece - Nestos	3	4	1	4
Turkey – Karapinar	1	3	5	6
Turkey – Eskisehir	0	4	11	11
Morocco	3	1	4	7
Tunisia	5	3	2	7
Russia – Djanybek	1	2	7	8
Russia – Novy	2	2	2	4
China	2	3	4	6
Botswana	3	3	1	4
Chile	1	4	3	4
Cape Verde	2	3	3	5

* 3 options from the WOCAT database included but later dropped again (before the multi-criteria assessment)

Annex 2 provides an overview on all options selected in the 1st stakeholder workshop, those assessed with the WOCAT questionnaires in WP3.2, and those selected in the 2nd stakeholder workshop.

Presentation to the stakeholders

For explaining the pre-selected options to the stakeholders during the workshop, it was recommended that illustrative posters be produced with the relevant key information in the local language. Such posters were prepared by Chile, Portugal and Spain only. Most study sites used projectors or written summaries to introduce and explain the options. About half of the sites did not indicate how exactly they presented the pre-selected options to the stakeholders.

Fogo Controlado

Portugal

Use do fogo para cumprir um objetivo pré-definido.

Descrição:
Consiste numa ferramenta de gestão de combustíveis florestais através do fogo. O tipo de fogo depende dos objetivos locais. Para fazer fogo controlado é necessário um plano de implementação e a presença de um técnico com formação específica bem como equipas de apoio (bombeiros, sapadores florestais, ...) que constituem equipas que trabalham com água e ferramentas manuais e se encarregam da queima.

Objetivo:
- Melhoria das pastagens
- Redução da carga combustível
- Limitação da progressão de incêndios florestais

Estabelecimento/manutenção:
Frequentemente devem ser analisadas as condições meteorológicas (temperatura, vento e humidade) para avaliar se estas permitem cumprir os objetivos da queima. No dia da queima verificam-se as condições de segurança e definem-se as tarefas para todos os elementos presentes. A ignição do fogo deverá seguir duas regras principais: a de contra vento e de contra relevo. Cumprindo estas condições serão alinhadas as equipas e iniciadas linhas de queima que devem definir a área a queimar. Estas linhas podem estar espaçadas entre si, até 10m, sendo sequenciais em termos de queima. A dimensão da equipa depende da dificuldade da zona a tratar com o fogo.
O programa de fogo controlado é financiado por verbas da AFN, sendo da total responsabilidade da mesma. É implementado na estação de Inverno, sendo que as condições atmosféricas devem ser favoráveis e os combustíveis a queimar devem estar secos ou com um grau de humidade baixo, promovendo-se assim a optimização da queima.

Ambiente natural/humano:
Nos climas mediterrâneos, o fogo é um elemento de regeneração natural da paisagem. A sua introdução controlada pretende minimizar os impactos face a incêndios de grandes dimensões. A sua adopção é bem aceite pelas populações que vêem esta técnica como uma forma de aumento dos seus rendimentos.

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Data: 2009

Representação esquemática para uma intervenção de fogo controlado (adaptado de Pedro Palheiro por Manuela Carreras)

DESIRE

CERO LABRANZA

En el secano interior la cero labranza evita la práctica del barbecho, permite establecer trigo, con un resultado económico aceptable. Asimismo permite establecer praderas, que asegura una buena rotación para el cereal. Contribuye positivamente al control de la erosión.

El SIRSD considera en la cero labranza y cero labranza tiro animal los costos derivados del herbicida y su aplicación, los costos de la maquinaria de siembra y los relativos a las labores de acondicionamiento de rastrojos. Esta práctica es incompatible con la quema de rastrojos.

	Tractor	Tiro animal
Inversión		
Tractor 5	20.865.600 - 23.184.000	
Maquina Vence Tudo 5	4.000.000	1.800.000
Costo operación, \$/ha	23.000	18.000
Bueyes (2), \$		1.200.000
Uso de mano de obra	Bajo	Bajo - Medio
Época labor	Mayo	Mayo
Impacto degradación	Bajo	Bajo
Beneficio económico corto plazo	Medio - alto	Medio - alto

PERDIDAS DE SUELO CON DIFERENTES MANEJOS

Figura 1. Erosión de Erosión (kg/ha) L.T. Labranza Tradicional C.L. Cero Labranza P.N. Pastoreo Natural

Examples of technologies, poster format from Portugal (left) and Chile (right).

Adaptations and final selection of options

In most study sites, the list of options presented by the moderators was used as the point of departure without making any specific adaptations or refinements. It might be that stakeholders simply agreed and didn't see any need for adaptation, or in other cases maybe discussion was not encouraged enough by the moderators. Nevertheless, below are some details from study sites that have provided more specific information on this process.

- In Cape Verde, the stakeholders discussed the selection in two groups and agreed that 'terraces' should not be maintained and that all vegetative barriers should be integrated into one technology (independent of plant species), which finally resulted in a list of 5 options.
- In Chile, the group preferred to integrate single measures into technology groups and add a new option (agroforestry); which required some flexibility of the moderators.
- In Greece-Crete there were no necessary adaptations to fit the local context since four out of five options are already applied in the area.
- In Morocco, the selection of 6 options from the 1st workshop and 3 from the WOCAT database were reduced to total 8, whereas some were adapted to the local context. The 'furrow-enhance runoff water harvesting for olives' from Syria for example was generalized to become 'Olive trees with devices for runoff collection', or grass strips from Tajikistan and the Philippines became 'vegetative strips'.
- In Portugal, the stakeholders proposed to change the 'primary strip network system' into 'strategic management of fuel strips', which is broader. The same was suggested for 'forest fire watch-towers', 'water points' and 'prescribed fire', which were merged into 'infrastructure of forest support'. This resulted in 4 final measures from the original list of 7.

- In Russia – Novy two objectives were selected in step 1. After having explained the options, the stakeholders recognized that the options were the same for both objectives and therefore agreed to merge the two objectives. The options of preselected measures from the WOCAT database have been adjusted to fit the local context.
- In Russia – Djanybek, the two objectives were maintained, but the options were also adapted like in Novy. The workshop report does not contain detailed information on how it was adapted from the WOCAT database.
- In Spain, participants were asked to vote on the 5 most promising measures out of a list of 8 presented options.
- In Turkey – Eskisehir, the stakeholders decided to work with the options as presented by the moderators and only later make necessary adaptations. Finally, 3 similar structural options were merged into one (stone bunds).

Result of Step 2

The expected result was agreeing on 4-7 options to be evaluated in the course of the following steps. This goal was achieved by all study sites. The number of options finally evaluated varies between 4 (Botswana, Portugal, Russia – Novy) and 11 (Turkey – Eskisehir, but for two objectives).

2.3 Step 3: Identification of relevant criteria for evaluation

Identification process

Information on the process of criteria identification is only partially available. Most study sites have probably done it in a kind of brainstorming session. Following some details from study sites:

- Chile: Participants were asked to write the most relevant criteria on cards, which were then grouped and ranked in a plenary.
- China: The moderator distributed a checklist of possible criteria and explained the meaning of each. It is not obvious whether the list from the guidelines was distributed (which in fact was not meant to be distributed...), or their own list. Then, participants were asked to select 4-6 key economic and ecological criteria and 2-4 socio-cultural criteria. These were ranked and the top 13 selected and agreed upon.
- Portugal: Participants were divided into two village groups and were asked to propose a set of 12 criteria, which were then discussed in plenary and reduced to 3-4 per category.
- Spain: The brainstorming took place in two subgroups (farmers and others). Afterwards, the suggested criteria were discussed and a selection made by individual voting (3 votes per criteria).
- Turkey – Karapinar: From comments in the workshop report it must be concluded that they gave the list of possible criteria (from the guidelines) to the stakeholders and asked them to select a number of appropriate criteria from that list. As mentioned above (see China), this is not how the list in the guidelines is supposed to be used. The stakeholders preferably should select their criteria and describe these in their own words. We don't have detailed information but have to assume that the same also applies for Eskisehir, as moderators were partly the same.

The recommendation on the number of criteria to be selected per category (economic/production, ecological, socio-cultural) is 3-4, i.e. a total of max. 12. This recommendation was mostly followed. Only 4 study sites exceeded the total number of suggested criteria: China (13), Cape Verde (18) and both Turkish sites (14-16 per objective).



Voting of the criteria by participants in Spain (Photo: Joris de Vente)

Most cited criteria

On the 16 criteria lists from different sites (usually one per study site plus two lists from Russia – Djanybek, Turkey – Karapinar and Turkey – Eskisehir, as they had two objectives), some criteria are found repeatedly. In the following, the most often cited lists criteria per category are listed, as well as those, which one might expect to appear on more lists.

Economic / production

- Crop yield increase: 11 x (sometimes as one criteria together with farm income increase)
- Increase farm income: 8 x
- Costs of implementation / expenses of inputs: 8 x
- Product / activities diversification: 6 x
- Fodder / animal production increase: 6 x

Ecological

- Soil erosion decrease / prevention: 14 x
- Plant diversity / biodiversity increase: 6 x
- Increase organic matter content of soil: 6 x
- Increase water availability / quantity: 6 x plus 2 x under off-site
- Other water related (groundwater, river and pond rehabilitation, etc.): 5 x
- Decrease salinity / reduce risk of soil salinization: 5 x
- Soil cover increase: only 3 x!
- Reduce evaporation: only 2 x
- Drought resistance: only 1 x!

Socio-cultural:

- promotion of association, neighbourhood solidarity, community institutional strengthening: 7 x

- food security increase: 6 x
- capacity building / increase knowledge of conservation / erosion: 6 x
- Increase employment opportunities: 4 x under socio-cultural, plus 3 x under economic
- Migration reduction / fixing population and stop farming exodus: 5 x

Off-site:

- Various mentioned by 4 sites (Russia and Turkey), like

Result of Step 3

The first expected result was to identify relevant criteria for the evaluation of different options. It has been achieved at all study sites. The second expected result was to achieve a common understanding of the selected criteria among the participants. As most workshop reports do not specifically describe stakeholder discussions, this achievement can not be verified.

2.4 Step 4: Scoring the options

Scoring range

The default range from rank 1 (very bad) to rank 7 (very good) was used by only 4 study sites (Chile, China, Greece – Crete and Spain); many used 1-5 (Botswana, Morocco, both Russian and both Turkish sites) and others 1-10 (Cape Verde, Portugal and Tunisia). The rank 0, which indicates a killer criterion, was actually applied by the stakeholders in Botswana, Spain and Tunisia.

Scoring methodology

Most study sites made the scoring in the recommended stakeholder groups

Table 6: Number and type of stakeholder groups formed for the scoring step

Study site	# of groups	Type of participants
Spain	2	Farmers, others
Portugal	2	Gois, Macao (the two subsites)
Greece – Crete	-	Individual scoring discussed in plenary (?)
Turkey – Karapinar	3	2 farmers groups, 1 experts group
Turkey – Eskisehir	4	2 farmers groups, 2 experts group
Morocco	-	Discussion in plenary with predominant role of farmers
Tunisia	3	Transect groups
Russia – Djanybek	4	Administration, practitioners, farmers, external experts
Russia – Novy	4	Administration, practitioners, farmers, external experts
China	2	Local, external
Botswana	2	Village leaders, other land users
Chile	2	mixed
Cape Verde	2	Scientific and political stakeholders, local (land users organized in associations)

To conduct the scoring exercise in a practical and easy way, the use of a ‘scoring ladder’ was recommended, on which small cards representing the different options (each with a photograph) can be placed on the score range for one criteria at a time (see guidelines p. 39). Telling from what information the workshop reports provide, only Portugal has used this visual ‘scoring ladder’ tool (see figure below). Spain has worked with cards of options, but on a big scoring matrix on the wall (which is the same as a separate ladder for each criterion). Most other sites have directly worked with a matrix table, either on small sheets or on a board.



Valuing the options concerning the criteria 'maintenance costs' with the help of the scoring tool in Portugal (Photo: Gudrun Schwilch)

Group scoring outcome and consensus finding

After finishing the scoring process in groups, the result and its variation was assessed by the moderators. A way had to be found to determine a single value, either through consensus or average. The two sites of Russia and Tunisia kept the groups separate till the end of the decision process, only comparing the results after the final analysis. Table 7 shows differences found in the assessments made by different groups, and how they were dealt with.

Table 7: Differences in scoring between the stakeholder groups

Study site	Differences in scoring
Spain	Averages made, graphs were provided illustrating different scoring by farmers and non-farmers.
Portugal	Scoring results were presented in detail, highlighting the most divergent assessments in order to discuss and find consensus among the stakeholders. It was observed that in some cases different interpretations of the criteria occurred.
Greece – Crete	Differences found in scoring, depending on the participants' age, field experience, and disciplinary background. Final score defined by making a compromise among all participants.
Turkey – Karapinar	No significant differences between the groups observed, averages made.
Turkey – Eskisehir	Farmer groups scored very close to each other, while the experts groups significantly diverged from each other (due to differences in their professional background) and from the farmers groups. Finally, averages were made.
Morocco	The phase of scoring allowed discussions about the validity of every option with regard to the various criteria. Multiple cases of differences of scores were recorded, which sometimes required a long discussion. Every score was only maintained if it was justified and accepted by all participants. The farmers got a predominant role. Differences mainly concerned the economic dimension.
Tunisia	Several criteria assessed similarly. No merging of scores, 3 separate matrix tables kept for further analysis.
Russia – Djanybek	The preferences given through voting were quite similar. Specialists explained advantages and disadvantages from their point of view, while practitioners and farmers brought in their visions and implementation realities. No merging of scores, 4 separate matrix tables kept for further analysis.
Russia – Novy	Same as in Djanybek
China	No info on differences. Averages of scores made.
Botswana	There were major differences, but the tables and the scoring were discussed to come up with negotiated and agreed scores.
Chile	Similar scoring, except one criterion, which was understood differently by the two groups.
Cape Verde	There were some differences between local and external stakeholders, which were discussed in plenary. To find a consensus, they took either the average score, or accepted the score of one group, or agreed on a new value.

Result of step 4

The expected result of exercise 4 was:

1. all options are assessed for the different criteria;
2. major differences in the assessment made by different stakeholder groups are made transparent.

From the workshop reports it can be concluded, that result 1 was achieved at all sites, and result 2 probably at most of the sites. However, regarding the achievement of the second expected result no conclusive answer can be given, as available information is not detailed enough. Negotiating the various perceptions and understanding regarding the criteria different stakeholders may have, and the scoring of options is an important step in the process, which can only be made if differences are made transparent. Those sites which have continued working with separate matrices have probably skipped these discussions (Russia, Tunisia).

2.5 Step 5: Criteria ranking

Ranking methodology

The guidelines recommend ranking the criteria after scoring, as a more detailed understanding of the criteria can be reached by that time. However, some sites performed this step while selecting criteria, mainly to gain time. Actually, it does not really matter so much when the ranking of criteria is done, i.e. both ways are acceptable. (We might think of changing the methodology guidelines accordingly.)

Only little information on the process of ranking was found in the workshop reports; mostly just the result was displayed. So, it cannot be said if a discussion among participants took place or not. Some sites decided to let the stakeholders vote for their favourite 3 criteria in each category, such as in Chile and Spain. In Spain, the number of votes for each criterion was then used for ranking. Others indicate that there was a group discussion (Turkey, Russia). The ranking step was not done at the study sites of Cape Verde, although they did include a ranking in the Facilitator software, and Morocco, as they did not use the Facilitator software during the workshop.

Result of Step 5

The expected result of step 5 is, that the weight / importance of each criterion is identified and agreed upon. It must be assumed, that this was not achieved by all study sites. The importance the ranking has for the result of the application of the Facilitator software was probably underestimated by most sites. The ranking actually applies a weight to each criterion. Portugal is the only site which also ranked the main categories (economic, ecological and socio-cultural) besides ranking the single items belonging to these categories. By equalizing the main categories in the ranking procedure, they made sure that in the overall result, no category was ranked above another, e.g. that economic criteria were not ranked above ecological criteria. This point needs more attention and has to be better explained and stressed in the workshop guidelines.

2.6 Step 6: Analysis and interpretation

Use of the Facilitator software

To run the analysis according to the suggestions in the workshop guidelines, the Facilitator software is needed. In reality, not all study sites used the software. In Morocco, it was only used by the researchers and some technicians during a preparatory workshop, but not during the stakeholder workshop due to lack of time (1 day only). Also in Chile it was not used due to the one-day workshop. In Greece – Nestos the software was not used as they applied a completely different approach (training seminar). All other study sites did use the Facilitator software.

The Facilitator software produces graphs that visually display the relative merits of each option. Each option is represented by a bar, showing the range of overall scores for that option, specific for the socio-cultural, economic and ecological categories. The width of the bar and its location relative to the other options need to be interpreted and discussed with the stakeholders to understand the overall performance of each option.



Analysis graphs as presented and adapted from the DESIRE Facilitator software in Spain (Joris de Vente).

In Spain, the moderators adapted the resulting graphs with qualitative range names (from very low to acceptable to very high), which is better understood by the stakeholders than figures. If the options would be ranked alphabetically rather than according to their maximum, it would be even easier to compare the three categories socio-cultural, economic and ecological. However, this sorting was only applied by Botswana and Portugal.

Some study sites struggled with the software, but finally, all applied it successfully. Below some interesting statements from the workshop reports:

It took several attempts to finally realise success, and display results for participants to review. It needs to be stated however, that once we got the tool right, it came across as powerful and fascinating for the participants, as for the most part it confirmed their scoring. (Botswana)

The DESIRE Facilitator software was used to objectively present the combined result of all opinions and for all criteria. It should be emphasized, that the moderators always tried to be totally independent and did not participate at any time in the scoring process. So, all graphs obtained here reproduce exclusively the decisions, opinions and desires expressed by the participants in a consensual way. After the presentation of these results, a passionate discussion took place regarding the hierarchy of water and soil measures as presented. The moderators explained that, the opinion of each individual does not necessarily correspond to the overall results which consider the opinion of all participants and all criteria used in the evaluation process. At the end of the clarifications and debate, the majority of the participants understood and agreed with the results. (Cape Verde)

After the presentation of these results an intense debate was started on the presented hierarchy of conservation measures. At first sight, several of the participants did not believe the results as presented in the graphs. Some participants even suspected that the data were manipulated by the workshop organisers. Therefore, the methodology behind the whole selection process and especially the Facilitator software was explained again step by step. At

the end of the explanation and discussion, the vast majority of the participants understood and agreed with the results as presented. (Spain)

The DESIRE Facilitator software package was actively used for demonstration of voting results by screening to the blackboard by multi-media projector. This procedure was useful for stakeholders by letting them be informed during the meeting time. A discussion following this analysis made the interpretation of the result becoming clear. (Russia – Novy)

In both Russian sites, the stakeholder group results were analysed separately for the 4 groups.

The Tunisian team found it difficult to explain the results from the analysis.

Interpretation

The graphs produced by the Facilitator software need to be interpreted carefully. From the workshop reports, only little information is available on how they were interpreted. Mostly just the resulting graphs were displayed, without further comments.

In Crete (Greece), the analysis and interpretation was first only done for each criterion separately, which is actually just repeating the scoring discussion. After comments on their report, the analysis per category was included, but it was probably not done during the workshop. Interpretation of the graphs remained incomplete, focusing mainly on the ecological and economic criteria. It is not clear why at the end 'no tillage' was interpreted as the preferred option, as it only ranked high in the socio-cultural category (having only 1 criterion compared to many more criteria in the two other categories!).

In Morocco, where the Facilitator software was not used, the interpretation of the scoring phase was still possible due to the extended preparation phase with detailed analysis of each option. It was stated, that this permitted all participants to estimate the advantages and the negative points of each SLM technology. It might be concluded that this incomplete process caused the rather unclear final decision and selection.

In Portugal, interpretation was challenged due to the fact that in each category, a different technology scored best. In the overall analysis this was levelled out, resulting in all options scored more or less equally well. The workshop report proves that the interpretation was done well and correctly.

In Tunisia, the team made a good analysis and interpretation of the resulting graphs (for each transect group). They were also challenged by no option showing high ranks in all three categories, but it was still possible to see which the best option is. The second best option was re-prioritized without giving clear reasons for this. It is unclear, whether e.g. the criteria were wrong and not supported anymore by the stakeholders? *'These results were calibrated and then validated in large part by the farmers. Taking into account the different concerns for the three economic, environmental and social dimensions by farmers, a re-prioritisation was made with farmers.'* (Tunisia report).

A profound analysis and interpretation is also presented by the Turkey – Karapinar site.

Result of step 6

The expected results of step 6 are

- that relative merits of different options become clear, and participants are aware of the pros and cons depending on the view of different stakeholders.
- Participants understand which options are most promising in the local context.

We can hardly judge whether these results were really achieved by all sites. It is a core step within the whole methodology, but information is insufficient to analyse the outcome for each site. However, it can be assumed that, where enough time was available, a discussion took place before a final choice was made (see next step). In Spain a long discussion continued following the presentation of the Facilitator output graphs. These were used as a starting point for further informed negotiation.

2.7 Step 7: Prioritisation of options – negotiation and decision making

Sometimes, the graphs produced by the Facilitator software clearly show, which of the options scores best. In other cases this is not obvious and discussion and negotiation among the stakeholders is required. It has to be clarified whether in the specific context it is most important that an option scores better economically, socio-culturally or ecologically. It is a great opportunity to discuss such basic principles with stakeholders, though at the same time a challenging task.

As with the other steps, some study sites did report on these negotiations, others didn't and just presented the final result. This final result (the decision) is in most cases reasonably based on the precedent steps, but not always. Details can be found in table 8, which at the same time gives an overview of the methodology application for each site.

Sometimes, participants would have liked all measures to be implemented, such as in Spain: *“all the participants agreed that in fact all six conservation measures are viable and worth implementing in the field. A combination of these measures would be ideal”*.

In certain study sites, financial constraints did not allow to actually decide on the preferred option for implementation, such as in Botswana or Turkey - Eskisehir. This also applied to China, where check dams were given up for level bench terrace and reforestation. In the case of China, the selection of check dams was anyway not based on proper analysis, as it scored very low socio-culturally. These cases proof that it is very important that relevant criteria are carefully selected and included in the scoring and analysis, especially also budget limitations. This criterion for example was not considered in Botswana.

Decision-making process and overall impression on WP 3.3 workshop process (steps 2 to 7)

Table 8: Decision making process at each study site

Study site	Process observations	Decision (compared to analysis)	Overall impression
Spain	<ul style="list-style-type: none"> - Well structured process - Initially open to new options from WOCAT, later focus on own options - Scoring done with visual option cards - Stakeholders mistrust Facilitator software 	Reasonable, although stakeholders would prefer all options. Reorganisation of best options according to 2 main land use types.	Methodology well used with some minor changes within the scope of flexibility of the methodology. Surprising is the high mistrust of stakeholders in Facilitator software.
Portugal	<ul style="list-style-type: none"> - well structured process - work with option posters and visual cards - work with scoring ladder - proper scoring negotiation and ranking 	Reasonable decision, although discussion was difficult as there was no clear winner from the analysis	Very good application of methodology, almost perfect
Greece – Crete	<ul style="list-style-type: none"> - unclear scoring process (in groups or individually?) - unclear analysis during WS 	Drip irrigation scored above no tillage due to only one socio-cultural criterion. Decision for no tillage therefore remains unclear and not based on evidence.	Methodology probably not conducted carefully enough and in a rather mechanical style.
Turkey – Karapinar	<ul style="list-style-type: none"> - 2 objectives maintained throughout - Restricted criteria selection 	Decision reasonable, based on good analysis	Major effort to apply methodology and use Facilitator software, although probably rather mechanically
Turkey – Eskisehir	<ul style="list-style-type: none"> - 2 objectives maintained throughout - Mistrust of stakeholders towards WOCAT db 	Analysis correct, but final decision on merging the first two options remains doubtful	Major effort to apply methodology, although probably rather mechanically
Morocco	<ul style="list-style-type: none"> - High focus on presentation and discussion of assessed options - Lower focus on selection and decision process 	Decision mainly left to study site team to suggest and select the most feasible option(s) for test implementation	Engaged process, but not fully following the suggested methodology
Tunisia	<ul style="list-style-type: none"> - Well conducted analysis of 3 transect group results - Extensive scoring matrices 	First option reasonable, but second option re-prioritized without clear reason. A second workshop held for final re-prioritization and decision, although not fully clear why.	Quite well conduction of method, although scoring not fully taken into account for decision. Many options planned for implementation
Russia – Djanybek	<ul style="list-style-type: none"> - Extensive scoring matrices 	Decision mostly reasonable, although different prioritization for two villages	Quite well conducted following the guidelines. Almost identical process in both Russian study sites.
Russia – Novy	<ul style="list-style-type: none"> - Maintaining two objectives throughout - Extensive scoring matrices - Unequal group size 	Reasonable decision	Quite well conducted following the guidelines. Almost identical process in both Russian study sites.

China	- Variable criteria selections	More or less reasonable, although preferred option scores very low socio-culturally. Due to financial constraints, the second and third options were selected.	More or less well applied methodology, but the analysis and selection was not done carefully enough. It would have required some more negotiation.
Botswana	- Major differences in scoring between groups, but well negotiated	Reasonable, although preferred option left out due to financial constraints. Ecological criteria put over economic / socio-cultural.	Well done, correctly applied methodology. Possible improvement through better use of visual tools (e.g. posters, cards).
Chile	- Selection of options from government list - Regrouping of options by participants - Simple ranking of options based on averages	Reasonable, as zero tillage ranked best in almost all categories and both groups	Although Facilitator was not used, the process was conducted quite well. The selected option has already been decided upon earlier, as test implementation had already started.
Cape Verde	- Fair sub-selection of options through stakeholders - Passionate discussions	Quite reasonable, although afforestation did not score well economically. Vegetative barriers are second best option in all 3 categories.	Well done, correctly applied methodology. Possible improvement through better use of visual tools (e.g. posters, cards).

2.8 Step 8: Embedding into the overall strategy and seeking a commitment

At 8 out of 14 study sites commitments were made by different stakeholders regarding supporting test-implementation of selected measures. At some study sites (e.g. Botswana, Cape Verde, Tunisia) very detailed lists of who is going to do what were elaborated, while at most other sites the commitment was made in a more general mode. In Spain, they expanded the commitment to defining how communication with stakeholders and information on the implementation process and results will be safeguarded. In Turkey, it was found that it is difficult for governmental stakeholders who are willing to support the process but are not in a position to commit themselves / their institution and even more so to promise any financial support. Regarding the latter point, it has to be assumed that this applies to many sites and is not typical for the Turkish context only.

Regarding the refining of the draft of an overall strategy developed in workshop 1, it has to be mentioned that 5 out of 14 study sites did not have such a draft to be used as a basis for refinement. This applies to Spain, Greece-Crete, Greece-Nestos, Tunisia and Morocco. In Portugal, the draft strategy was further developed and defined in more detail. In Botswana, emphasis was given to a single element of the draft strategy which was elaborated in much detail. In most other study sites however, no real refinement or further development of the draft strategy was found, and in some sites it is even difficult to capture a broader strategy.

From the results presented in the reports it has to be concluded, that this embedding of concrete measures into a broader political, socio-cultural and economic context is a huge challenge for study site teams and for the stakeholders. Of course it was never expected that it would be possible to develop a coherent strategy in 2 exercises in a workshop with some representatives of different stakeholder groups. The aim was to sensitise study site teams and workshop participants on the importance of considering the broader context when selecting and especially while implementing concrete measures.

Results of step 8

The main objectives of this step were 1) to refine the overall strategy which was drafted at the end of the 1st stakeholder workshop and to ensure that the option selected for test-implementation fits into the overall strategy while adequately considering framework conditions; and 2) to reach some kind of commitment of participants to support test-implementation.

Only few study sites really emphasised the development and refinement of an overall strategy for sustainable land management. This issue is and remains a challenge for the project. Workblock 1 and the NGO's involved in the project are taking this point up and are working on it.

At more than half of the study sites it was possible to get a certain commitment of stakeholders regarding the test-implementation process. This is very valuable in order to create ownership and interest of stakeholders in the project and its results.

3. Workshop evaluation

Workshop evaluation is an integral part of the workshop methodology. What follows is a compilation of comments and hints found in the reports on different aspects of the workshop.

3.1 Workshop atmosphere and stakeholder participation

From most workshops it was reported that participants were interested and liked the methodology, that participation was active and good, and that the working atmosphere was relaxed.

3.2 Workshop methodology

In general, the feedback on the workshop methodology is positive. However, in Karapinar and to a certain extent also in Tunisia, the difficulty was working with participants with a low educational level.

3.3 The WOCAT database

Regarding the use of the WOCAT database the following comments have been made:

- Two study sites, Crete and Turkey - Karapinar, found that the current WOCAT database does not contain any or too few case studies which are relevant for their study site. Crete did therefore only include local options, whereas Karapinar maintained the external WOCAT technologies during the workshop. It is not clear why they did not work with the options identified in WS1 (see also table in annex).
- In both Russian study sites as well as in Turkey - Eskisehir the usefulness of the WOCAT database was doubted as participants consider the options found in the database to be from very underdeveloped countries and therefore not relevant for their context. Again, for the Turkish site it is surprising that the options identified in WS1 were not considered in WS2, although it is mentioned that these were applicable at limited scale only.

3.4 The Facilitator Software

- Not all study sites did use the Facilitator Software during their stakeholder workshop. The Botswana team explicitly stated having had technical problems using it, in Chile and Morocco it was not used due to time constraints as the workshop was conducted in 1 day. The Moroccan team however, did use the software in an internal team workshop which was conducted as a preparation to the stakeholder workshop.
- The Spanish team reports that participants had difficulties understanding what the Facilitator software was doing and therefore mistrust it and suspected it to do things behind their backs. However, this could be resolved by explaining and clarifying again.
- The Cape Verdean team considers the use of Facilitator useful to reach consensus.
- The Turkish team found the Facilitator useful to a) explain evaluations to stakeholders, and b) to make people think in a structured way.

3.5 Recommendations from study sites

- The Portuguese study site team suggests planning a third stakeholder workshop in order to evaluate the implementation of the selected remediation strategy. → In fact, WB 4 and 5 are currently working on a concrete suggestion to all study sites for such an evaluation workshop with stakeholders.
- In the Portuguese workshop participants got aware of how important teamwork and collaboration among different stakeholders is, in resolving problems. They therefore suggest organising more events and collaboration. → This is fully in line with the un-

derlying understanding of stakeholder dialogue and collaboration promoted by this specific WB3 approach.

- The Moroccan study site team suggests that decision-making processes as conducted in stakeholder workshop 2 would have more influence on land users and technicians if it were conducted under a government programme. → In regard to future similar research programmes it would be worthwhile considering a stronger involvement of governmental institutions.
- The Spanish team suggests providing participants with a user friendly version (easy to use version) of the Facilitator software to play around and see the effects different decisions have. → The authors of the software are currently developing a new and user-friendly on-line version of Facilitator. This revision will include the suggestions provided by WB3 on the basis of the experience from the application in the Desire programme.

4. Strengths, weaknesses and challenges

In the following, we would like to address some strengths and weaknesses we perceive the methodology has, based on the experience of its use in the context of the DESIRE project. Additionally we will focus on challenges found in its application.

4.1 Strengths

1. **Well structured process / procedure:** Breaking down the decision-making process into a series of steps helps to conduct a clearly structured process with the stakeholders. Application at the study sites has shown that the steps are mostly clear and manageable.
2. **Build understanding / awareness of other stakeholders' views:** Different stakeholder groups having equal votes in scoring, and the possibility to negotiate the scoring in order to reach consensus, require that various points of view and opinions are being discussed. This forces all participants to listen to the arguments of other stakeholders, encourages a change in perspectives and mind sets, and therefore enhances respecting and understanding different stakeholders' perceptions.
3. **Easy calculation and visualization of results:** Using the Facilitator software helps to make calculations of the weighted criteria combined with the scores, which would be difficult to do manually. The result presented in bars allows a visual comparison of the assessed options.
4. **Seeking commitment as part of the process:** during the last step of the methodology some kind of commitment is sought from the stakeholders regarding the thereafter implementation phase. Of course, nobody should be urged to commit him- or herself to something he or she doesn't want. However, stakeholders willing to commit themselves in one way or another are a perfect basis for creating a sense of ownership and interest in the further steps of the project. We have the strong feeling that this commitment would hardly be possible if exchange of ideas and experience, as well as interaction and collaboration among different stakeholder groups had not started already in the first stakeholder workshop, and continued during the second.

4.2 Weaknesses

1. **Less flexibility:** The structured procedure, praised as an advantage above (see strength 1) is at the same time a weakness, as the workshop methodology is less flexible than the one designed for stakeholder workshop 1. Steps cannot just be skipped without hampering the result in case of time pressure, for example.
2. **Bugs in the Facilitator software:** The Facilitator software in its current version is not as easy-to-use as was expected; it still had some software bugs. (Communication with the US-American authors of the software revealed that they are most probably going to re-program the Facilitator).
3. **Hardly possible to define a broader SLM strategy:** The short duration of the 2nd stakeholder workshop does not allow an in-depth discussion as would be needed to define/improve a broader SLM strategy. However, such a strategy is required to properly embed the selected technologies in a broader context and perspective, taking into account the relevant socio-economic, institutional and policy issues.
4. **Options coming from the WOCAT DB** (enter the process in the 2nd workshop only): being new in the process, these options might be 'overlooked' and therefore kicked out in the course of the process as the local options have already been discussed a lot during the 1st workshop and participants are more identified with them (as happened in Spain).

Similar difficulties regarding the exchange between study sites (or other sites, i.e. options from the WOCAT DB) have been reported from Tunisia, saying that people are conservative and sometimes skeptical regarding technologies they don't know themselves.

4.3 Challenges

1. **Options from other contexts require careful consideration regarding adaptation:** The external options taken from the WOCAT database in step 2 require a good understanding of SLM principles, appropriate knowledge of the local situation and experience to be properly adapted to the local context.
2. **Proper use of decision support software:** There is always a risk that the use of the Facilitator software raises false expectations among stakeholders on what it can and can not do regarding the evaluation of different options. Moderators need to be clear about the potential and limitations of the software, its purpose and reasonable use, and they must be capable of properly interpreting and explaining the resulting graphs.
3. **Challenging for moderators and stakeholders:** The methodology of the 2nd stakeholder workshop is more complex and abstract than the one of WP 3.1, and therefore its implementation even more challenging for all involved partners.
4. **Scoring ladder:** With the 'scoring ladder' - a simple to use visual tool - we thought to provide an effective tool for facilitating the scoring step. However, this tool was hardly used by workshop moderators. We will still try to find out why it was not used: was it too challenging or considered too simple, and therefore unnecessary?
5. **Correct interpretation and careful application:** The graphs produced by the Facilitator software need to be analyzed and interpreted carefully. This step is decisive and at the same time challenging for the moderators. However, a serious and careful use of the methodology is required throughout the process, as the consecutive steps build on each other.
6. **Proper integration of the three components of the WB3 methodology:** To ensure that parts I and II of the WB3 methodology (identification, documentation and sharing of options) are at the basis of the methodology for the 2nd stakeholder workshop (part III). This refers to
 - a. The composition of stakeholders (participants) in workshop 1 and 2 (not necessarily the same person, but at least informed colleagues of the same institutes or societal groups). In the whole process, enough attention must be given to stakeholder analysis (before WS1) which should result in a better understanding of how stakeholders can be motivated to participate and how they can be shown what is in it for them.
 - b. The conformity or at least complementarity of objectives of SLM as defined in workshop 1 and 2,
 - c. Using options identified during workshop 1 in workshop 2;
 - d. Embedding options selected in workshop 2 into an overall (regional) SLM strategy. First reflections towards such a strategy have already been made during workshop 1.

5. Annex 1: List of stakeholder workshop reports

All reports from the second study site stakeholder workshops are available on the DESIRE website and HIS.

- Report No 39: WP3.3 Stakeholder Workshop 2 report - held in the Boteti study site, Botswana, October 3-4, 2008. Authors: Dr. L. Magole; Dr. J.R. Atlhopheng; Prof. Chanda
- Report No 40: WP3.3 Stakeholder Workshop 2 report - held in Yanhe River Basin, China, June 2-5, 2008. Authors: Wang Fei, Yang Shangbin, Li Jinpeng, Zhangjia
- Report No 42: WP3.3 Stakeholder Workshop 2 report - held in the Guadalentin drainage basin (Spain), June 26-27, 2008. Authors: Jorge López, Joris de Vente, Albert Solé.
- Report No 43: WP3.3 Stakeholder Workshop 2 report - held in Béni Khédache, Tunisia, June 17-18, 2008. Authors: Sghaier M., Mahdhi N. Ouessar M., Ben Zaied M., Abdelli F., Ouled Belgacem A. and Taamallah H.
- Report No 44: WP3.3 Stakeholder Workshop 2 report - held in Eskişehir, Turkey, June 11-12, 2008. Authors: İnci Tolay, Faruk Ocakoğlu, Sanem Açıklın.
- Report No 45: WP3.3 Stakeholder Workshop 2 report - held in Karapınar, Turkey, June 24-25, 2008. Authors: Mehmet Zengin, Faruk Ocakoğlu, Sanem Açıklın
- Report No 56: WP3.3 Stakeholder Workshop 2 report - held in Santiago Island, Ribeira Seca Watershed, Cape Verde, March 18-20, 2009. Authors: Jacques de Pina Tavares, Isaurinda Baptista.
- Report No 57: WP3.3 Stakeholder Workshop 2 report - held in Quilamapu, Chillán, Chile. November 12, 2008. Authors: Carlos Ruiz, Alejandra Engler.
- Report No 58: WP3.3 Stakeholder Workshop 2 report - held in the Góis municipality, Portugal, February 19-20, 2008. Authors: Celeste Coelho, João Soares, Jorge Moreira, Manuela Carreiras, Sandra Valente.
- Report No 59: WP3.3 Stakeholder Workshop 2 report - held in Pallasovka District, Volgograd Oblast, Russia, August 6-7, 2008. Authors: Anatoly Zeiliger, Vyacheslav Semenov, Olga Ermolaeva
- Report No 60: WP3.3 Stakeholder Workshop 2 report - held in Marks District, Saratov, Russia, August 8-9, 2008. Author: Anatoly Zeiliger, Vyacheslav Semenov, Olga Ermolaeva
- Report No 61, WP3.3 Stakeholder Workshop 2 report - held in Greece, Crete, Chania, January 27-28th, 2009. Authors: K. Kosmas, Or. Kairis
- Report No 62: WP3.3 Stakeholder Workshop 2 report - held in Greece, East Nestos Delta Basin, October 15th, 2008. Authors: V. Diamantis, I. Gkiougkis, A. Pechtelidis
- Report No 64: WP3.3 Stakeholder Workshop 2 report - held in Morocco, Sehoul region, Arjat, December 16th, 2008. Authors: A. Laouina and colleagues
- Report No 65: DESIRE Cointzio watershed activities with stakeholders. Authors: C. Prat, E. Rios.

6. Annex 2: Table showing technologies selected in the course of WB3

Overview on selected technologies from 1st workshop, to 2nd workshop, and final decision

Table 9: Technologies selected during WS1, for the WOCAT documentation and during WS2

Study site	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment
Spain	applied	Minimum and/or correct tillage	Reduced contour tillage in semi-arid environments	Minimum and/or correct tillage. <i>Reduced tillage</i>	
	potential	Integration of agricultural and ecological systems		--	
	potential	Terraces and vegetation strips	Vegetated earthen-terraces	<i>Vegetated earthen-terraces</i>	Not implemented in WB4! ¹ But will be evaluated (hopefully) with PESERA model.
	applied	Shift to ecological agriculture/high quality products	Ecological production of Almonds and Olives	<i>Ecological agriculture</i>	Implemented with reduced tillage and green manure
	potential	Liquid manure -> biogas -> fertilizer		<i>Use of liquid manure as fertilizer</i>	Not implemented in WB4!
	<i>potential</i>	Organic mulch	Organic mulch under almond trees	<i>Organic mulch</i>	
	applied	Selection of species economically and agronomically adapted to the region.		--	
	applied	Water harvesting structures	Water harvesting from concentrated runoff for irrigation purposes	<i>Traditional water harvesting structures (Boqueras)</i>	
	applied	Naturally formed graded terraces		--	
	potential	Rationalize crop rotations with livestock		--	
Portugal	applied	Implementation of a Forest Intervention Area (ZIF)		--	→ approach!
	applied	Prescribed burning	Prescribed fire	<i>Prescribed fire</i>	
	applied	Primary Tracks	Primary strip network system for fuel management	Strategic management of fuel strips	
	--	--		Infrastructure of forest support	
	--	--		<i>Preventive forestry</i>	

¹ The stakeholders considered all selected technologies worthwhile implementing; which is not feasible in the scope of Desire though.

	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment
Greece – Crete	applied	No tillage land management practice	Olive groves under no tillage operations	No tillage	
	applied	Drip irrigation	Application of water by drip irrigation	Application of water by drip irrigation	
	applied	Nets spread on the soil surface in combination with no tillage	No tillage operations, plastic nets permanently on the soil surface	No-tillage operations, plastic nets	
	applied	Land terracing	Land terracing in olive groves	Land terracing	
	--	--		Vegetative erosion control and conservation crop system	
Greece – Nestos	applied	Use of freshwater	Transport of freshwater from local streams	Transport of freshwater from local streams	Own methodology for selection
	applied	Soil internal drainage		Deep ploughing	
	applied	Drainage improvement		--	
	applied	Use of gypsum		Gypsum application	
	applied	Use of pressmud		--	
	applied	Use of winter rainfall		--	
	potential	Seeding placement		--	
Turkey – Karapinar	potential	Strip cropping	Strip farming	--	Is now trialed in WB4
	potential	Grazing control	Rotational grazing	Rotational grazing	
	applied	Reforestation		--	
	applied	Drip irrigation	Drip Irrigation	--	
	potential	--		Caragana korschinskii planting	
	potential	--		Resoiling (pits with manure)	
	applied	--		Pressurized irrigation	
	potential	--		No-till technology	Is now trialed in WB4
potential	--		Drought-resistant crop production		

Study site	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment	
Turkey – Eskisehir	applied	Tree planting		Stakeholders did not include any locally applied or potential SWC measure from WS1 (applied locally such as in garden)		
	applied	Crop rotation				
	applied	Fodder crops production	Fodder crop production			
	potential	Drip irrigation				
	potential	--		Water harvesting	2 objectives and a combination of measures selected for each: protection of dry-farmer areas (-> bunds with contour planting)	
	<i>potential</i>	--		<i>Fanya juu terraces</i>		
	potential	--		Farm pond		
	potential	--		Contour trench		
	potential	--		Planting pits and stone		
	<i>potential</i>	--		<i>Stone bund of Tigray</i>		
	potential	--		No till technology		
	<i>potential</i>	--		<i>Contour planting</i>		
	<i>potential</i>	--		<i>Caragana Korshinskii planting</i>	pastureland rehabilitation (-> C.K. planting)	
potential	--		Stone bund of Tigray			
			Gabions			
Morocco	applied	Assisted cork oak plantation	Régénération assisté de chêne liège	--		
	applied	Rotational fodder cultivation	Rotation culturale : cereals / légumineuses fourragères (lupin)	Rotational system with strips of fodder		
	applied	Rotation of annual cultivations	Rotation culturale cereals / légumineuses alimentaires	Rotation of annual cultivations (+ option with beans)		
	applied	Fruit tree plantation along the contour separated by strips of crops	Plantations d'olivier avec cultures intercalaires	Strips of olive trees		
	applied	--		The traditional cereal system		
				Olive trees with devices for runoff collection		
		<i>potential</i>	--		<i>Vegetative strips</i>	
		<i>potential</i>	--		<i>Treatment of gullies</i>	
						Additionally <i>mulch/minimum tillage</i> for implementation in WB4!

Study site	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment
Tunisia	applied	Jessour and tabias	Jessour, Tabia	<i>Tabia and jessour</i>	
	applied	Spillway Massraf	Gabion check dam	--	
	applied	Rangeland resting	Rangelands resting	Enclosure	
	applied	Recharge units and flood spreading	Recharge well	<i>Flood spreading & recharge units</i>	
	applied	Cisterns	Cistern	<i>Cisterns</i>	
	potential	Buried stone pockets		--	
	applied	Plantations		--	
	applied	Contour stone ridges		Stone ridges	
	--	--		Medicinal and aromatic plants	
--	--		Supplement irrigation		
Russia – Djanybek	<i>potential</i>	Drip irrigation	Drip irrigation	<i>Drip irrigation with supplied water</i>	1 st objective 'fresh water conservation and effective use'
	potential	Water-proofing		--	
	potential	Land phyto reclamation (sudan grass)		--	
	--	--		Snow melt water harvesting	
	--	--		Drip irrigation with snow melt water	
	--	--		Drip irrigation with pocket of fresh ground water	2 nd objective 'soil conservation against water erosion'
	--	--		Infiltration losses decreasing of fresh water at ponds	
	--	--		Grazing land management by rotation introducing	
	--	--		Contour planting and gully control	
--	--		Forest, apple tree plantation or shrub belt planting		
Russia – Novy	applied	Green manure		--	
	applied	Drainage		subsoil drainage	
	<i>potential</i>	Drip irrigation	Drip irrigation	<i>Drip irrigation</i>	
	potential	Licorice (Glycyrrhiza) cultivation		--	
	--	--		Sprinkler irrigation	
	--	--		Reducing infiltration losses from water supply channels	

Study site	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment
China	applied	Planting trees			
	applied	Building dam	Check dam for land	Check dam land	
	applied	Building terraced field	Terrace	Level bench terrace	SWCs tested in WB4 include contour plowing and residue mulching for cropland, and a contour infiltration ditch for the sparse forest (SIP version 2)
	applied	Closure against grazing			
	applied	Interplanting			
	applied	Building terraced field	Year-after-year terraced land	--	
	applied	--		mulching	These 4 types are already applied in the whole region
	applied	--		Level groove on the slope	
	applied	--		Reforestation	
applied	--		Fish-scale pits		
Botswana	applied	Rainwater harvesting	Roof Rainwater harvesting system	Rainwater harvesting	Biogas assessed as highly potential already in WS1
	potential	Using bio-gas instead of fire-wood	Biogas	Biogas	
	potential	Ranch Farming	Game Ranching	Game ranching	
	potential	Commercial farming (cropping)		--	
	applied	Feedlot		--	
	applied	Building dams		--	
		--	Solar Cooker	Solar cooker	
Chile	potential	Subsoiling			
	potential	No tillage	No tillage	Zero tillage approach	
	potential	Contour ploughing		--	
	potential	Ley Farming systems		--	
	potential	Irrigation technologies		--	
	--	--		Incorporation of organic matter	
	--	--		Infrastructure: structural measures	
--	--		Water harvesting		

Study site	Applied / potential	Selection WS1	Documented with QT	Selection WS2 <i>Bold italics = final decision</i>	comment
Cape Verde	applied	Slopes and riverbed protection		Check dams	
	applied	Training & sensitization		--	
	potential	Longueira Dam Construction	Dams	Small barrage / Dam	
	potential	Improvement of animal production		--	
	applied	Institutional and Legal Capacity Strengthening			
	--	--	Arborização	<i>Afforestation</i>	
	--	--	Terraços reforçados por muros de pedra, Muret	Contour stone walls	
	--	--	Barreiras Vivas de Leucaena, Live barriers	<i>Vegetative barriers</i>	