

Evaluation of remediation recommendations: Stakeholder Workshop 3 Crete, Greece

1. Introduction

Crete is subjected to high desertification risk due to various reasons. Pasture land is among the areas at greatest risk. In recent decades, degraded agricultural land has been abandoned and converted to pasture to provide low cost and high quality animal products. Consequently, the livestock population on the island has more than doubled in the last three decades, exceeding recommended stocking rates, and resulting in overgrazing. The resulting degradation of the vegetation has contributed to high erosion rates. Overgrazing is considered to be the main cause of desertification in the island.

For that reason, an experiment was carried out as part of the DESIRE project, near Agia Barbara village, on a steeply sloping area of overgrazed land (23% slope) with shallow soil (35-45 cm deep). Four runoff plots were established to represent two alternative practices (for details see WB4 documents):

- Sustainable grazing (Figure 1); and
- Overgrazing (Figure 2)



Figure 1: Overgrazing



Figure 2: Sustainable grazing



Figure 3: Participants in final DESIRE stakeholder workshop



Figure 4: Workshop presentation – C. Karavitis (facilitator)

The workshop consisted of presentations of findings from previous WBs, followed by a stakeholder workshop where Prof. Karavitis (facilitator) tried to build consensus among participants by asking them to express their opinions about land degradation in the study area and what they think should be done to remediate this degradation. The technique that was followed, was the Nominal Group Technique (Figure 5), where a formed group discusses an issue or a problem (desertification in this case), guided by a facilitator. The ideas expressed, generate individual lists and when a final list of options is compiled, the ideas are discussed to be clarified and a composite list is created.

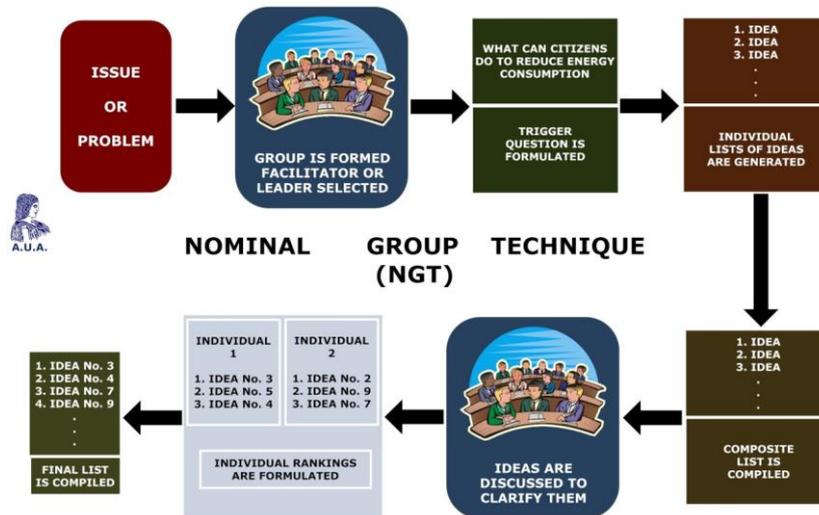


Figure 5: Example of Nominal Group Technique

All the answers were recorded on flip chart sheets, easily readable from across the auditorium (Figure 6). Care was taken to ensure participants were not guided towards certain preferences or preferred actions. After the final option list was completed, the participants were called to vote the best solution for the mitigation of desertification and land degradation in general (Figure 7). From

the 39 persons, only 33 voted, giving the 10 points to their most preferable choices except the Vice Major who replaced the Major of Agia Barbara and voted with 15 points.



Figure 6: Noting the expressed opinions – D. Stamatakos



Figure 7: In front of the option list – from left: V. Fassouli, Vice Major of Agia Barbara, C. Karavitis

2. Priority Remediation Strategies

Evidence from field trials and modelling showed that the proposed remediation strategy increased vegetation cover and hence reduced erosion rates, leading to higher soil organic matter content, reduced soil surface crusting, higher biodiversity and reduced desertification risk in plots where sustainable grazing practices had been followed. In addition to this, sustainable grazing practices were found to be cheaper to implement than current practice (for details, see WB4 findings). For this reason, workshop participants agreed that the proposed remediation strategy could be recommended for further dissemination.

3. How can we enable priority remediation options to be adopted?

The experiment's results were more or less expected since more sustainable grazing practices reduce many of the pressures that are currently leading to land degradation in the study area. Nevertheless, such activities usually present other drawbacks, especially of an economic nature. As such, workshop participants were concerned that the current level of subsidy they receive from the EU is linked to the number of animals they own, and so lower stocking rates could lead to a drop in subsidies.

Thus, the application of sustainable grazing requires additional funds to compensate for subsidy losses due to reduced stocking levels, or to buy additional feed to keep livestock housed inside for certain periods (to allow the land to rest). The funding required was estimated at about 7 Euros per animal. An alternative suggestion that was made during the workshop was to spread livestock out over wider areas, to reduce grazing intensity, however there are land ownership, tenure and financial barriers to this.

Despite the lack of funds, sustainable grazing received a satisfactory score when compared to alternative options that could be considered by decision-makers (Table 3). This score suggests that local farmers are interested in adopting more sustainable grazing practices, as long as this does not compromise their incomes.

Table 3: Sustainable grazing compared to alternative options for reducing land degradation in Crete, ranked according to votes from participants taking part in a DESIRE stakeholder workshop

A/A	OPTIONS	POINTS
1	Construction of small dams	55
2	Overgrazing control	46
3	Underground water recharge	38
4	Wider planning	30
5	Water resources management	27
6	Political decisions	25
7	Law enforcement	23
8	Public awareness	20
9	Natura sites protection	16
10	Erosion control	15
11	Agricultural practices	13
12	Environmental sensitivity	12
13	Legislative framework	10
14	Analytical Hydrological Research	5

4. Feedback from participants

Despite the participants' enthusiasm about the DESIRE approach, a problem occurred concerning the fact that the whole WOCAT system and processes are available only in English. Many of the participants stated that they will need further support in order to use it and benefit from the information that is offered.

One positive issue that occurred is the fact that local authorities and stakeholders are willing to participate in the battle against desertification as long as their profit is not threatened. And in times like the current ones such a reaction is more than understandable and respected.

5. Next steps

It was agreed that AUA will work as closely as possible with local stakeholders and other interested groups that would like to use/apply the DESIRE methodology, and they will support the area with further research.