

**ACTIONS
FOR THE CONSERVATION
OF COASTAL DUNES WITH
JUNIPERUS spp. IN CRETE
AND THE SOUTH AEGEAN
(GREECE)**

LIFE07NAT/GR/000296



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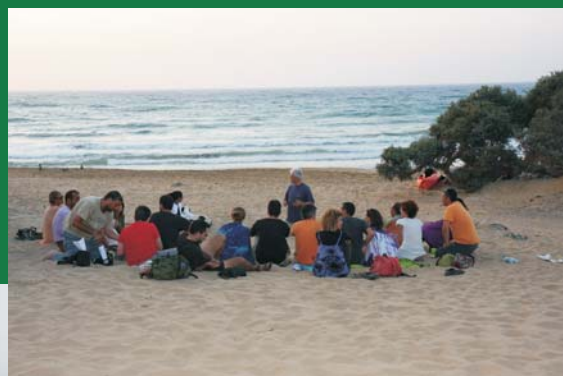
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Forest Directorate of Lasithi

**Action A.6
Deliverable A.6.1.4**

**STAKEHOLDER CONSULTATION
&
COMMUNITY SURVEY
FOR
FALASARNA**

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*"Actions for the conservation of coastal dunes with
Juniperus spp. in Crete and the South Aegean (Greece)"*
- JUNICOAST -

Action A.6: Stakeholder Consultation

Deliverable A.6.1.4: Stakeholder consultation and community survey for
Falasarna

Responsible beneficiary: Mediterranean Agronomic Institute of Chania
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Executive summary (in Greek)

ΠΕΡΙΛΗΨΗ

Τα Φαλάσαρνα βρίσκονται στη δυτική Κρήτη και διοικητικά ανήκουν στο Δήμο Κισσάμου και στη Νομαρχιακή Αυτοδιοίκηση Χανίων. Ανήκουν στην περιοχή ΦΥΣΗ2000 GR4340001 "Ημερη & Άγρια Γραμβούσα - Τηγάνι & Φαλάσαρνα - Ποντικονήσι, όρμος Λιβιάδι - Βίγλια". Ο οικοτόπος προτεραιότητας 2250* (παράκτιες αμμοθίνες με είδη *Juniperus*) καλύπτει έκταση 26 στρεμμάτων και βρίσκεται 200 μέτρα νότια της μεγάλης παραλίας των Φαλασάρνων. Στην πραγματικότητα ο οικοτόπος είναι κατακερματισμένος. Μια μικρότερη επιφάνεια του οικοτόπου υπάρχει βορειότερα, ακριβώς μετά την μεγάλη παραλία. Ο κυρίως οικοτόπος δεν δέχεται επισκέπτες, λόγω του ότι η πρόσβαση στη βραχώδη παραλία είναι δύσκολη. Οι κυριότερες δραστηριότητες στην ευρύτερη περιοχή είναι οι γεωργικές καλλιέργειες (θερμοκήπια και ελιές) και ο τουρισμός.

Η επιτυχία διαφόρων μέτρων προστασίας και διατήρησης ειδών ή οικοτόπων σε περιοχές του δικτύου Natura 2000, όλο και περισσότερο αναγνωρίζεται, ότι απαιτεί πρώτιστα την ενεργό συμμετοχή των ανθρώπων που κατοικούν μέσα ή γύρω από τις περιοχές αυτές ή εξαρτώνται από αυτές.

Για την επιτυχία των δράσεων του προγράμματος "JUNICOAST" και την μακροχρόνια προστασία και διατήρηση του οικοτόπου 2250*, στα πλαίσια της δράσης Α6, υιοθετήθηκε και εφαρμόστηκε μια στρατηγική διαβουλεύσεων με τους εμπλεκόμενους φορείς και την τοπική κοινωνία, τα αποτελέσματα της οποίας παρουσιάζονται στη παρούσα αναφορά.

Με την έναρξη του προγράμματος, παράλληλα με τις προσωπικές επαφές και τις τηλεφωνικές συνεντεύξεις με τους αρμόδιους φορείς, διοργανώθηκε στο ΜΑΙΧ ημερίδα, με όλους τους εμπλεκόμενους φορείς, ενώ για την διερεύνηση του επιπέδου των γνώσεων της τοπικής κοινωνίας σχετικά με το αντικείμενο του προγράμματος αλλά και των απόψεών της, χρησιμοποιήθηκε η μέθοδος των ερωτηματολογίων.

Στην προσπάθεια αναγνώρισης των αξιών του οικοτόπου, τόσο κατά τη διάρκεια της ημερίδας, όσο και κατά τις επαφές με τους αρμόδιους φορείς και τους κατοίκους της περιοχής, υπήρξε δυσκολία εντοπισμού της τοποθεσίας του οικοτόπου. Αν και

οι κάτοικοι δήλωσαν ότι επισκέπτονται την περιοχή πολλές φορές το χρόνο, εντούτοις αγνοούσαν την ύπαρξη του συγκεκριμένου οικοτόπου. Για το λόγο αυτό, αρκετές απαντήσεις αναφέρονται στην ευρύτερη περιοχή και όχι αποκλειστικά στον οικότοπο 2250*. Ως κύριες αξίες αναγνωρίστηκαν η βιοποικιλότητα, η φυσική ομορφιά, η πολιτιστική και αρχαιολογική αξία. Η αξία του οικοτόπου ως τόπος αναψυχής, είναι περιορισμένη εξαιτίας της δυσκολίας πρόσβασης στην ακτή. Όπως αναφέρθηκε από φορείς και κατοίκους της περιοχής, η μεγάλη παραλία των Φαλασάρνων καλύπτονταν στο παρελθόν από κέδρα (*Juniperus phoenicea* - αβόρατος) και το τοπωνύμιο ήταν "Αβορατές". Την δεκαετία του 1960 έγινε εκρίζωση των κέδρων με μηχανικά μέσα.

Για την παρούσα κατάσταση του οικοτόπου 2250* στα Φαλάσαρνα και τις τυχόν αλλαγές που συνέβησαν τα τελευταία 5 χρόνια, από τους 16 ενδιαφερόμενους φορείς που ερωτήθηκαν, μόνο 4 γνώριζαν τον οικότοπο και εξέφρασαν την άποψή τους. Δύο από αυτούς θεωρούν ότι ο οικότοπος είναι σε κακή κατάσταση, λαμβάνοντας υπόψη την καταστροφή που έγινε την δεκαετία του 1960 στη μεγάλη παραλία, ενώ οι άλλοι δύο θεωρούν ότι ο οικότοπος βρίσκεται σε σχεδόν καλή κατάσταση. Όσον αφορά τις τυχόν αλλαγές που συνέβησαν τα τελευταία 5 χρόνια, και οι τέσσερις φορείς που γνώριζαν την περιοχή, θεωρούν ότι δεν έχει επέλθει κάποια σημαντική αλλαγή.

Οι απειλές που αναφέρθηκαν και συζητήθηκαν κατά τη διάρκεια της ημερίδας με τους εμπλεκόμενους φορείς, δεν αναφέρονται αποκλειστικά στον οικότοπο 2250*, αλλά στην ευρύτερη περιοχή. Η διάνοιξη του δρόμου παράλληλα με την ακτή, ο οποίος διέρχεται μέσα από τον οικότοπο, θεωρήθηκε σημαντική διαταραχή για τον οικότοπο. Ως σημαντικές απειλές αναφέρθηκαν: η αμμοληψία που γίνεται στην ευρύτερη περιοχή, η ανεξέλεγκτη ανάπτυξη του τουρισμού και η επέκταση των θερμοκηπίων. Τα θερμοκήπια θεωρήθηκαν ως απειλή λόγω: 1) της καύσης των άχρηστων πλαστικών, 2) της μόλυνσης των υπογείων υδάτων από φυτοφάρμακα και λιπάσματα και 3) της υπεράντλησης των υπογείων νερών και της εισροής θαλάσσιου νερού στον υπόγειο υδροφόρα. Επίσης, η υπερβόσκηση που παρατηρείται κατά θέσεις, χαρακτηρίστηκε ως σημαντικός κίνδυνος για τον οικότοπο. Η έλλειψη ενημέρωσης των κατοίκων καθώς και των φορέων σχετικά με την αξία του οικοτόπου, παρουσιάστηκε ως σημαντικό ζήτημα. Αναφερόμενοι γενικότερα στο φυσικό περιβάλλον στα Φαλάσαρνα, 52% της τοπικής κοινωνίας θεωρεί ότι η έλλειψη περιβαλλοντικής ευαισθητοποίησης αποτελεί απειλή.

Σχετικά με το εάν η μέχρι τώρα διαχείριση στα Φαλάσαρνα είναι αποτελεσματική για την προστασία τους, η τοπική κοινωνία και οι φορείς απάντησαν αρνητικά, χωρίς να αναφέρονται αποκλειστικά στον οικότοπο 2250* αλλά στην ευρύτερη περιοχή του NATURA2000. Οι φορείς επισήμαναν ότι στην περιοχή δεν έχει εφαρμοσθεί κανένα διαχειριστικό μέτρο. Η τοπική κοινωνία μέσω των ερωτηματολογίων κατα 44% θεωρεί ότι η μέχρι τώρα διαχείριση δεν είναι αποτελεσματική, 33% απάντησαν ότι δεν γνωρίζουν, ενώ μόνο 23% θεωρούν ότι είναι αποτελεσματική.

Οι δημόσιοι φορείς ερωτήθηκαν εάν το υπάρχον δυναμικό τους επαρκεί για να εκπληρώσουν τα καθήκοντά τους σε σχέση με την περιοχή. Η πλειοψηφία των ερωτηθέντων θεωρεί ότι έχει δυσκολίες. Εθνικές και περιφερειακές αρχές ανέφεραν ως δυσκολίες, την έλλειψη στοιχείων ή δεδομένων. Οι τοπικές αρχές θεωρούν ότι είναι σε θέση να εκπληρώσουν τα καθήκοντά τους, αλλά επισήμαναν ότι οι υποχρεώσεις τους όσον αφορά τη διαχείριση των περιοχών Natura2000 είναι απροσδιόριστες. Οι κυριότερες δυσκολίες σχετίζονται με θέματα διοίκησης, όπως ασαφής διοίκηση και διαχείριση, έλλειψη γνώσης σχετικά με το δίκτυο NATURA 2000 και τις διαδικασίες για τη διαχείριση μιας προστατευόμενης περιοχής, καθώς και διαδικαστικά εμπόδια σχετικά με την έλλειψη προσωπικού και την ανεπάρκεια πόρων. Επίσης επισημάνθηκε η έλλειψη πολιτικής βούλησης και δέσμευσης για την προστασία του περιβάλλοντος. Η τοπική κοινωνία (35%) θεωρεί ότι οι τοπικές αρχές δεν εκπληρώνουν τις υποχρεώσεις τους αναφορικά με τα Φαλάσαρνα, ενώ 45% απάντησαν ότι δεν γνωρίζουν.

Όλοι οι εμπλεκόμενοι φορείς εκτός από δύο, συμφωνούν ότι η μέχρι τώρα διαβούλευση και συνεργασία μεταξύ τους, δεν είναι επαρκής για την αποτελεσματική περιβαλλοντική διαχείριση και την προστασία των Φαλάσαρνων.

Σχετικά με την εμπλοκή της τοπικής κοινωνίας στη λήψη των αποφάσεων για τη διαχείριση του περιβάλλοντος στα Φαλάσαρνα, μόνο 4 από τους 16 φορείς που ρωτήθηκαν απάντησαν ότι είναι αποτελεσματική. Οι υπόλοιποι 12 εξέφρασαν, είτε έλλειψη περιβαλλοντικής ευαισθησίας για την περιοχή, είτε γενικότερα την ανάγκη αύξησης των προσπαθειών για καλύτερη περιβαλλοντική εκπαίδευση και ευαισθητοποίηση. Στην έρευνα της τοπικής κοινωνίας, 90% των ερωτηθέντων απάντησε ότι δεν έχουν ερωτηθεί ποτέ, σχετικά με την προστασία του περιβάλλοντος στα Φαλάσαρνα.

Σχετικά με τη γνώση που υπάρχει για το καθεστώς προστασίας των Φαλασάρνων, από τις συνεντεύξεις με τους εμπλεκόμενους φορείς προέκυψε ότι ο κάθε φορέας γνωρίζει τον χαρακτηρισμό που υπάρχει ανάλογα με το αντικείμενό του, π.χ. η Αρχαιολογική Υπηρεσία γνωρίζει ποια περιοχή έχει χαρακτηριστεί ως αρχαιολογικός χώρος κλπ. Παρόλο που τα Φαλάσαρνα έχουν ενταχθεί στο δίκτυο NATURA 2000 εδώ και πολλά χρόνια, το 50% των ερωτηθέντων φορέων δεν γνώριζε το καθεστώς αυτό, ή όπως συνέβει και σε άλλες περιοχές, δήλωσε σύγχυση ή έλλειψη κατανόησης για το τι σημαίνει αυτό στην πράξη και τι νομικές συνέπειες έχει. Η γνώση της τοπικής κοινωνίας, σχετικά με το καθεστώς προστασίας στα Φαλάσαρνα, είναι επίσης ελλιπής καθώς 83% των ερωτηθέντων απάντησαν ότι τα Φαλάσαρνα δεν προστατεύονται ή δεν γνώριζαν αν προστατεύονται. Μόνο το 27.4% των κατοίκων γνώριζε ότι τα Φαλάσαρνα είναι περιοχή NATURA 2000. Όσον αφορά τις δραστηριότητες που επιτρέπονται ή απαγορεύονται, οι απόψεις των φορέων είναι αποσπασματικές, δηλαδή ο κάθε φορέας γνωρίζει την αντίστοιχη νομοθεσία ανάλογα με το αντικείμενό του. Η τοπική κοινωνία έχει επίσης εσφαλμένη άποψη, καθώς πιστεύει ότι κάποιες δραστηριότητες απαγορεύονται χωρίς να υπάρχει σχετική απαγόρευση ή το αντίθετο.

Στην ημερίδα με τους εμπλεκόμενους φορείς, στις συνεντεύξεις, στις προσωπικές επαφές και στην έρευνα της τοπικής κοινωνίας διατυπώθηκαν αρκετές προτάσεις, για την προστασία και διαχείριση της περιοχής. Από τους φορείς έγιναν οι παρακάτω προτάσεις:

- Καθορισμός των χρήσεων γης
- Ελαχιστοποίηση της υπερβόσκησης
- Αύξηση της ευαισθητοποίησης των κατοίκων και των επισκεπτών
- Αντισταθμιστικά μέτρα για τους ιδιοκτήτες γης στον οικότοπο
- Εκπόνηση και εφαρμογή σχεδίου διαχείρισης της περιοχής NATURA 2000
- Αποτελεσματική διαχείριση των αρχαιολογικών χώρων και καθιέρωση ζωνών προστασίας
- Τοποθέτηση ενημερωτικών πινακίδων
- Οριοθέτηση ή περίφραξη του οικοτόπου

Η τοπική κοινωνία εξέφρασε το αίτημα για περαιτέρω έρευνα και δράσεις για την οριοθέτηση- περίφραξη του οικοτόπου, ενημέρωση για τα κέδρα, δημιουργία χαρτών χρήσεων γης και οριοθέτηση ζωνών προστασίας. Επίσης η τοπική κοινωνία εξέφρασε την ανάγκη βελτίωσης της διαχείρισης των απορριμμάτων.

Αρκετές από τις προτάσεις που έγιναν, συνδέονται με την ανάγκη εφαρμογής της νομοθεσίας δηλαδή την απαγόρευση της βοσκής, της κατασκήνωσης και της φωτιάς. Επίσης, επισημάνθηκε η ανάγκη φύλαξης της περιοχής και η ανάληψη δράσεων αποκατάστασης του οικοτόπου με φυτεύσεις κέδρων.

Βάσει των αποτελεσμάτων της διαβούλευσης με τους εμπλεκόμενους φορείς και την τοπική κοινωνία:

- Χρειάζεται να διευκρινιστεί το ιδιοκτησιακό καθεστώς και να οριοθετηθεί ο οικότοπος
- Είναι απαραίτητο να εφαρμοστεί η νομοθεσία για την προστασία των δασών στην περιοχή
- Απαιτείται να εξευρεθεί τρόπος που θα εξασφαλίζει τη συναίνεση και τη συνεργασία των ιδιοκτητών γης
- Υπάρχει ανάγκη για μια εκτεταμένη εκστρατεία ευαισθητοποίησης αναφορικά με το δίκτυο NATURA 2000, τις αξίες και την ανάγκη προστασίας της περιοχής
- Υπάρχει ανάγκη χαρτογράφησης του οικοτόπου και ενημέρωσης των αρμοδίων αρχών, σχετικά με τα ακριβή όρια και τα άλλα χαρακτηριστικά του οικοτόπου
- Η ενημέρωση των επισκεπτών θεωρείται υψίστης σημασίας και υπάρχει δυνατότητα τοποθέτησης πινακίδων και διανομής ενημερωτικού υλικού σχετικά με το δίκτυο NATURA 2000 και τον οικότοπο 2250* στην μεγάλη παραλία
- Η διαχείριση των απορριμμάτων είναι αναγκαία και υπάρχει η δυνατότητα συνεργασίας με το Δήμο Κισσάμου

1. Introduction

It is increasingly recognized that successful implementation of conservation measures on the areas designated as Natura 2000 primarily necessitates active involvement of people inhabiting these areas or depending on them (Paavola, 2004). Participation is purported through the Habitats Directive, Aarhus Convention and Public Participation Directive 2003/35/EC. Participation here within is defined as, "*forms of exchange that are organized for the purpose of facilitating communication between stakeholders regarding a specific decision*" (Webler and Renn 1995), thus including both decision making stakeholders as well as the public living within or around the 2250* habitats of this project. Borrini- Feyberabend (1996) demonstrates how the underestimation of the needs, aspirations and perceptions of local populations is one of the main causes of failure in the effective management of protected areas. In fact, according to Harrison *et al*, (1998) and Eben (2006) should the needs of the local population not be considered during the institution/ designation, of a protected area, or during the implementation of measures for biodiversity conservation, these policies and measures will have little chance to achieve their objectives.

Thus, with the aim of ensuring the long term sustainability and success of JUNICOAST'S actions for the conservation of priority habitat 2250*, a consultation strategy was adopted and implemented, the results of which are presented in this report. The purpose of this action was to establish stakeholders' level of awareness, perceived values, threats and recommendations for conservation of the habitat in their localities. Secondary, indirect aims of this action were to raise awareness and support regarding the project and its actions, as well as obtain feedback with regard to the feasibility and long term sustainability of proposed concrete conservation actions.

This approach was based on the presumption, that decision making stakeholders, have an experiential understanding of the issues and practical difficulties within their localities as well as knowledge of procedural, and administrative mechanisms and barriers for the long term maintenance of proposed concrete conservation actions. The rationale for contacting the lay local communities was two-fold. Firstly, to establish their relationships to the specific areas, which in turn affects their attitude towards

protection initiatives (Bonaiuto et al 2002). Secondly, to establish levels of environmental awareness which in turn would help design, a targeted, and effective communication strategy and education campaign.

Based on the above, within this report the results of Action 6, consultation with stakeholders of Falasarna are presented. In Section 2, a brief overview of the site in Falasarna is presented, which helped formulate the research design, methodology and stakeholder analysis presented in Section 3. In Sections 4 to 10, the results of the consultations are summarised with regard stakeholder and community perceptions of Falasarna:

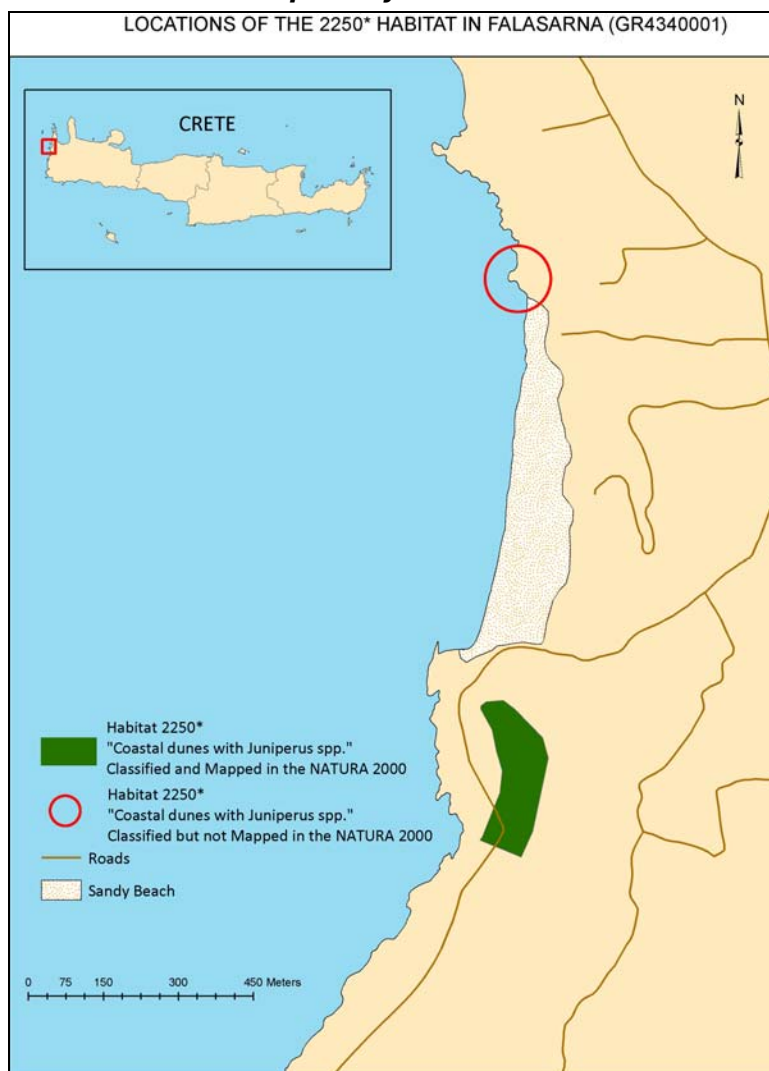
- values and relationship to protected area (Section 4)
- environmental status and trends (Section 5)
- threats (Section 6)
- existing management and protection effectiveness (Section 7)
- Participation and engagement opportunity adequacy (Section 8)
- Existing protection designations, reasons for them and implications regarding prohibited activities. (Section 9)
- Necessary environmental protection measures (Section 10)

This report concludes with a discussion and recommendations for improvement of proposed JUNICOAST actions, both concrete and dissemination, in light of obtained results, to be taken into consideration when developing specifications for concrete conservation actions (A.8) as well as communication strategy (D.1).

2. Falasarna 2250* Site- contextual background.

The smallest of the classified priority habitats 2250* in Crete (2.6 ha), which JUNICOAST is working on, is located in Falasarna west of Crete (Figure 2.1), and administratively belongs to the municipality of Kissamos, Chania Prefecture.

Figure 2.1 Falasarna site and priority habitat



Falasarna is a designated Natura2000 site code GR4340001 (name: Imeri kai Agria Gamvousa- Tigani kai Falasarna- Pontikonisi, Ormos Livadia- Viglia), covering an area of 5781.3ha. It is also subject to other national legal designations, aimed at the

protection of its natural and cultural features. Indicatively, the NATURA2000 site has been declared as¹:

- Special Natural Beauty Landscape (articles 50, 52 of law 5351/32 and art. 1, 5 of law 1469/50, ministerial resolution 31/36852/2942/12.10.73, Government gazette 1242/B/16.10.73)

On embarking with the JUNICOAST project, it was quickly realized that this site is problematic. The mapped 2250* priority habitat included in the JUNICOAST proposal, following site visit, was established to be fragmented and traversed by a tarmac road (Figure 2.2), cutting the habitat in two. Moreover, it is evident that the habitat is occupied by several private land owners. From the consultations, it was noted that this mapped habitat is unknown to the public authorities, stakeholders as well as the local community. Another 2250* classified habitat with sparse *Juniperus* populations, which has not been mapped as such in the NATURA2000 network, was indicated in the vicinity (Figure 2.3), thus resulting in confusion regarding the site of protection.

As the habitat is claimed to be private land, there is no visitor use of the site. Visitors go to the main sandy beach (Figure 2.1) and do not visit the site as access to the sea is difficult. The new site (Figure 2.3) is used for recreational purposes, and no evident land ownership issues are known to exist. The surrounding area is characterized by intensive and expanding agricultural activities, mainly greenhouses, as well as tourism. Kissamos municipality has a population of 7147 consisting of 2509 households, and the site is located within the municipal district of Platanos which has a population of 1262 consisting of 436 households (National Census 2001).

¹ A full analysis of the legal framework is presented in Action 9 report.

Figure 2.2 Mapped 2250* habitat referred to in JUNICOAST proposal



Figure 2.3 *New 2250* habitat indicated by locals, yet not mapped by the Natura 2000 network.*



3. Research Design & Methodology

In this section, the research design and methodology followed is described, including the results of the stakeholder analysis conducted. To begin with a literature review, regarding the state of the art in participation methods for protected area management was conducted.

Participation has different purposes which in turn affect the methods used, stakeholders involved and intensity of involvement. It is therefore important, to define the purpose of the participation and subsequent relevant methods which should be used to achieve that purpose.

A number of different hierarchies illustrating the different levels of participation can be found in the literature (Arnstein, 1969; Dorcey *et al*, 1994; Wilcox, 1994; Pretty and Shah, 1994; UNDP, 1997). Arnstein (1969) describes the different levels of participation using the metaphor of the ‘ladder of participation’. The ladder essentially depicts a hierarchy ranging from non-participation and degrees of tokenism, where participants essentially do not have the power to influence a decision, through to the top level of the ladder of citizen power where participants have total control over the decision making process.

One problem with such hierarchies is that they imply that more participation is necessarily better. However, the appropriate level and methods used should reflect the purpose of the participation (see Figure 3.1) (IEMA, 2002). Sanoff (2000, pg 11) describes the different purposes which participation can serve, as:

- *“to generate ideas;*
- *to identify attitudes;*
- *to disseminate information;*
- *to resolve some identified conflict;*
- *to measure opinion;*
- *to review a proposal;*
- *merely to serve as a safety valve for pent – up emotions.”*

One purpose does not necessarily exclude another, and indeed participation can fulfill more than one role. However, according to the defined purpose of the participation

process the methods used will vary, and it is therefore important to recognize the limitations of any one process. With regard to Action 6 and plurality of purposes (see Section 1) it is evident that there was a need to develop a mixed methods participatory approach. As is apparent from Figure 3.1, extended participant involvement requires high interaction methods which are initiated early within the participation programme and which limit the number of participants who can realistically be involved. Therefore, a stakeholder workshop undertaken at the onset of the project was carried out (Figure 3.2) in parallel with individual personal and telephone semi-structured interviews.

Extended participant involvement can have implications with regard to the extent to which the lay public can be involved. In deciding on the participatory strategy the following points were considered based on IEMA, (2002, p. 30):

- *'The purpose and objectives of the participation exercise;*
- *The degree of interaction required between participants and the extent to which participants are able to influence decisions;*
- *The timing of use, ie the stage in the decision making process and the time available for participation;*
- *Resource availability-time, costs;*
- *The number of participants involved; and*
- *The complexity, controversy and level of interest in issues under consideration*

Tonn *et al* (2000 pg164) state '*public participation should not be seen as an either or proposition*' but rather propose the consideration of the decision making questions and implications when deciding on the extent and methods of public participation. Considering the purpose of public participation was of investigative nature, rather than active engagement in decision making, it was decided to conduct a community survey, using questionnaires (Figure 3.1).

Figure 3.1. Levels of participation, techniques and factors influencing the selection of techniques (Adapted from IEMA, 2002)

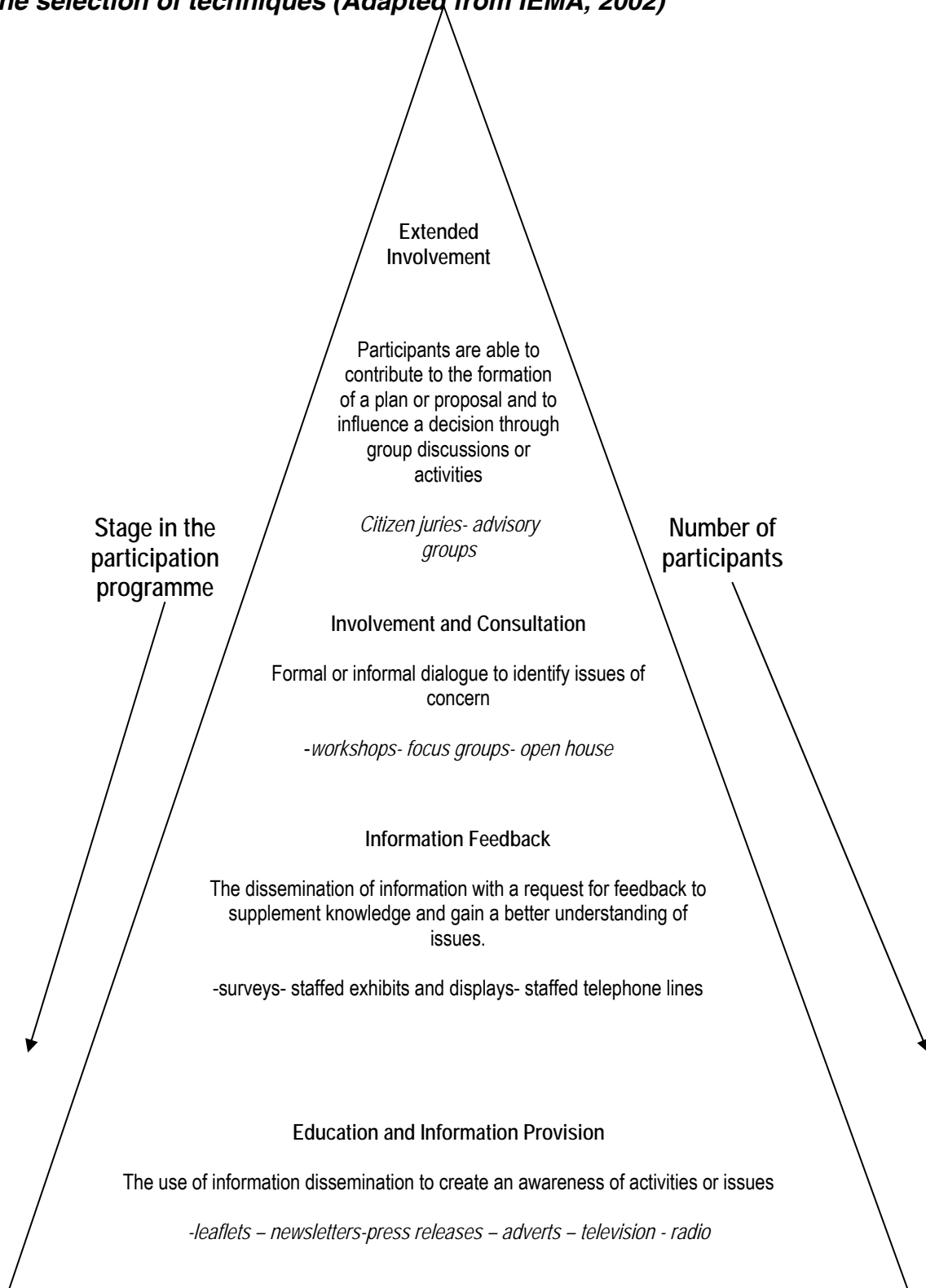


Figure 3.2. Stakeholder workshop at MAICH



3.1 Stakeholder Analysis

The definition of stakeholders given by WWF (2005, pg, 1) is: *Any individual, group, or institution who has a vested interest in the natural resources of the project area and/or who potentially will be effected by project area activities and have something to gain or lose if the conditions change or stay.*

When selecting stakeholders to involve in each stage of the participatory process, their legitimacy will have to be considered. If participants are not content with the composition of the group they may doubt the fairness of the process, and the whole participation process could be disrupted (Sanoff, 2000; Seargent and Steele, 1998). Therefore, the Environment Councils (2002, pg6) guidelines were utilized prior to the selection of stakeholders to assess their legitimacy:

- *Who is directly responsible for the decisions on the issues?*
- *Who holds positions of responsibility in stakeholding organizations?*
- *Who is influential in the area, community, organization?*
- *Who will be affected by any decisions around the issue?*
- *Who will promote a decision-provided they will be involved?*
- *Who will obstruct a decision- if they are not involved?*
- *Who has been involved in the issue in the past?*
- *Who has not been involved up to now -but should have been?*

Borrini-Feyerabend, (1996), regarding protected area management propose the consideration of inclusion in participatory processes stakeholder categories outlined in Box 3.1.

Box 3.1: List of potential Protected Area Stakeholders (modified from Borrini Feyerabend, 1996).

<ul style="list-style-type: none"> • Influential individuals • Land owners • Community representatives • Other representatives (e.g., tourism of farmers representative) • Local Associations • Elected representatives • Relevant PA NGOs • Agency (with legal jurisdiction or function in PA) • Business and commercial enterprise individuals or representatives • University or research organizations working in protected area. • Staff working in PA management or projects • Funding organization representatives • PA user representatives (e.g. hunters or hikers group representatives) • Religious or cultural heritage local representative • PA managers • PA and local community decision makers

Based on the above, and through a process of co-nomination a list of 75 potential stakeholders relevant to the project and specific habitat localities were identified and contacted (Appendix A). The participants which attended the stakeholder workshop are also listed in (Appendix A) where as in Table 3.1 are listed stakeholder capacity involved through this action- methods of involvement specifically for Falasarna.

Table 3.1 Stakeholders relevant to Falasarna contacted and consulted for A.6

Stakeholder capacity	Code	Workshop group attendance	Personal interview	Personal communication
Ministry of environment & public works	PS			
Ministry of Agricultural Development	PS	X	X	X
Region of Crete- Forest Directorate	PS	X	X	X
Region of Crete- Environment Division	PS	X	X	X
Chania Prefecture Antiquities Directorate	PSL		X	X
Paleohora Port Authority	PSL	X	X	X
Chania Prefecture Political Protection (emergency planning authority)	PSL		X	X
Mayor of Kissamos Municipality	PSL		X	X
Chania Prefecture Firebrigade Authority	PSL	X		X
Land owner of Site X 2	Private			X
Chania Ecological Association	NGO-L		X	X
Chania Environmental Education Representative	PSL	X		X
Regional Forest Directorate Inspectorate	PS	X	X	X

Forest Directorate of Chania	PSL	X	X	X
National Greek Tourism Organisation	PSL	X		X
All Primary School Headmasters from Kissamos municipality	PSL			X
Prefecture of Chania- Environment Division	PSL	X	X	X
Cadastre Authority of Chania	PSL			X
Natural History Museum	PSL	X	X	X
ΑΡΧΕΛΩΝ- Society for the protection of the carretta carreta turtle	NGO-N		X	X
Ελλάδα καθαρή	NGO-N		X	X
WWF	NGO-N		X	X
President of Agricultural cooperative of Platanos	NGO-L		X	X

3.2 Methodology

Below an outline of the methods utilised to conduct preparatory action 6 are presented in turn: workshop methodology (3.2.1) stakeholder interviews (3.2.2), personal communications (3.2.3) and community survey (3.2.4). Due to data collection triangulation, and exhaustiveness of stakeholders samples engaged, the robustness of results is strengthened.

3.2.1 Workshop methodology

In order to maximize stakeholder engagement and potential for input, the workshop utilized different participatory methods, taking into consideration Environment Council (2002) facilitation method guidelines: For a detailed analysis of the workshop methods participant and results refer to Appendix A. Indicatively, the workshop procedure is outlined below.

Workshop participants were divided into groups according to capacity and site relevance. Stakeholders participating in Falasarna working group are presented in Table 3.1. Following a brief presentation of the JUNICOAST project aims and objectives as well as the priority habitat and sites which the project will carry out actions in, stakeholders in their groups were instructed to carry out exercise 1. All participants were handed out a workshop manual in Greek (included in appendix A) which included a brief summary of the project, the agenda as well as a description of all the actions, and exercise instructions. Additional material included a draft

educational programme (included in appendix A) for them to review, the draft local community survey (included in appendix A) as well as a workshop feedback form (included in Appendix A) which was completed following the end of the workshop. Facilitators were provided with additional review sheets where stakeholder comments were recorded.

Exercise 1

This exercise utilized a combined carousel metaplan method, whereby participants in their groups were asked to discuss and write on post it's

- the main values (environmental , social, and economic) of the specific sites
- the main threats to the sites
- the recommendations in order to ensure the preservation of these values and minimizations of the threats
- their expectations and views regarding what they would like to see achieved from the JUNICOAST project

Each group had a facilitator assigned by MAICH which took notes of the conversation as well as stuck the post it notes on the relevant posters. Aerial pictures as well as maps of the habitat were provided to participants where they were asked to draw on them, important features or problem areas.

Exercise 2- Review of proposed Actions

Following a brief presentation of each action (preparatory A, concrete C, dissemination D and E actions) participants were asked to consult the manual where the detailed description of each action was presented and with the input of the facilitator, detail feedback on each action was obtained.

For each action the following questions were addressed and conclusions noted by facilitators:

- Relevance / importance of proposed action
- Existence of data
- Potential for collaboration and input/ action

3.2.2. Stakeholder Interviews

Following a stakeholder analysis, (16) stakeholders (Table 3.1) were contacted and interviewed. Snowball purposeful sampling was also utilized and data collection stopped only when no new stakeholders were being proposed by interviewees. Only with one of the 17 stakeholders (Ministry of Environment and public works), an interview was not possible, signifying a very robust sample.

Semi-structured interviews including qualitative and quantitative questions were undertaken. In Appendix C questions asked (interview template) is presented. Interviews were recorded and transcribed and content analysis performed for qualitative responses (Sarantakos, 1993), where as descriptive statistics using excel were performed for quantitative data (De Vaus, 2007). The analysis and discussion of results is presented jointly with workshop and community results in Sections 4 to 10.

3.2.3 Personal Communication- Informal interviews

In many cases formal interviews were not appropriate or essential. However in order to obtain the views of stakeholders relevant to a particular component of the project (e.g. tourism or education) and to establish their collaboration and involvement in the project, personal communication in the form of meetings or telephone conversations was carried out (See table 3.1).

Headmasters of primary schools were visited in order to determine specifications and practical issues regarding the education campaign as well as level of interest and possibility for school engagement.

During the first field visits to the site, the team encountered, an individual, of considerable age, who reproached the team for trespassing, and claimed to be the private owner of part of the habitat. Immediate action was taken by the project manager, who organized a meeting with two of the landowners to try and mediate the situation. The project manager described the project and proposed actions, as well as requested the collaboration of the land owners. The project manager explained to them, that their land ownership would not be jeopardized by this project, which was of major concern to them.

During the project manager's visit, one of the land owners raised the question why the project actions will be carried out only in the site mentioned in the project proposal and not in a nearby locality where sand dunes with *Juniperus* trees are also found. The project manager asked the land owner to show him which site he was referring too, and following the site visit, it was in fact established that this is a 2250* classified habitat, but which has not been mapped as such in the NATURA2000 network, and was thus not included in the proposal. This event not only shows the importance personal communication in generating new information, but also the need to continue consultation activities throughout the duration of the project, to establish long term communication and collaboration channels.

3.2.4 Community survey

In order to obtain information regarding the local populations' perceptions of values threats and required activities for the site as well as levels of environmental awareness, and relationship to the site, a household community survey was conducted.

Random sampling was used, and self completion questionnaires were delivered and collected through schools in Kissamos municipality enabling an even geographical coverage. A total of 253 completed household questionnaires were obtained, from the Kissamos Municipality.

Data was analysed using excel and SPSS, results of which are presented in the following sections. Content analysis was conducted on open ended questions using codes.

3.2.4.1 Limitations

There are important limitations regarding the community survey for the site of Falasarna. From the results, but also from feedback from headmasters which facilitated in the collection of completed questionnaires, it appears that community respondents were not aware of the presence of habitat 2250* or misunderstood which site was referred to. Thus, the results only of generic questions and not those referring specifically to the designated priority habitat in Falasarna are included in this report. From the analysis of the different questions it became apparent that a) either locals did

not know of the presence of any *Juniperus* in the area, signifying their lack of knowledge of the site or b) that they were referring to the large sandy beach which they claimed in the 60's did have junipers or c) that they were referring to the un mapped 2250* habitat (Figure 2.1 and 2.3).

Similar problems were faced also during stakeholder interviews, as most interviewees did not know of the presence of habitat 2250* in the area, nor to that matter what this designation consisted of.

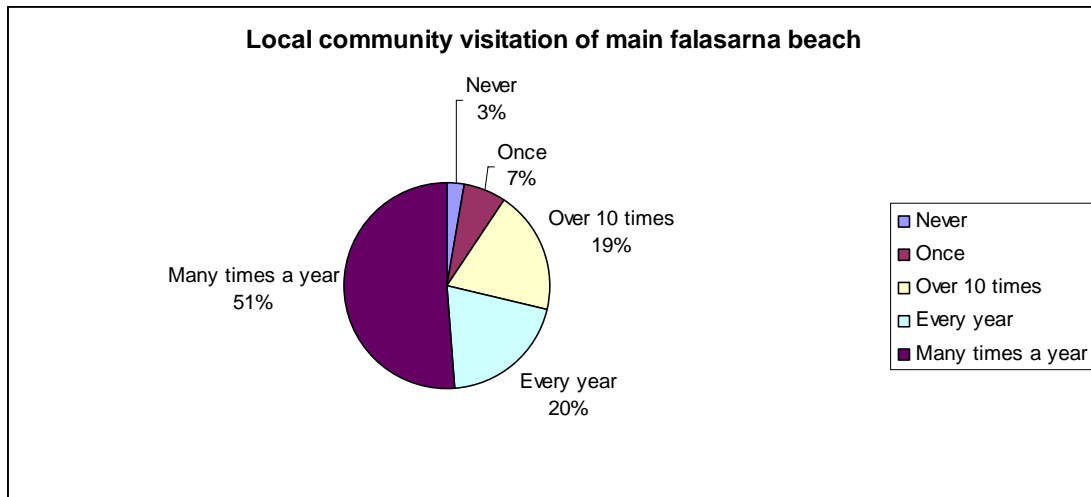
4. Stakeholder and Community perceptions of Falasarna values.

As explained in Section 3 interviewees and local community respondents in their majority did not understand or know of the site, and therefore responses cannot be included. Even during the workshop, it is important to note that not all stakeholders were aware of the priority habitat or its location. It was shown to them on two different maps which enabled them to visualize the habitat. Following this, the main values of the habitat in Falasarna were presented as the inherit biodiversity and natural heritage values. The protection role of the beaches from erosion- reference was made to the original function of sand dunes in limiting flooding and salt spray entering the hinterland. One of the stakeholders mentioned that in the 60s the entire beach of Falasarna looked like what is classified as 2250* nowadays. The specific habitat recreational value was considered to be limited as it is not used for recreational purposes, due to the lack of access to a beach.

The archaeological value of the area in general was mentioned by some of the stakeholders, which mentioned the presence of findings of Minoan artefacts near the boundaries of the habitats. The opportunity of using archaeological legislation to ensure the projection of the habitat was also discussed.

It is interesting however, to note that the local community does appear to visit the near by large beach of Falasarna many times a year, yet did not know of the priority habitats presence. Indicating the potential for local awareness raising and information dissemination regarding the habitat at the main large beach.

Figure 4.1 Local population visitation frequency of main Falasarna



5. Habitat Perceived Status and Trends

Regarding the perceived status and condition of the habitat, from the 16 relevant stakeholders interviewed, only 4 knew of the site, and expressed an opinion. Two of the stakeholders perceived it to be in poor condition, as they viewed the large beach as part of the entire habitat, stating that it was bulldozed in the 60's significantly reducing the size and viability of the remaining habitat. Few local community respondents also made reference to this event. The other two interviewees perceived the condition to be average.

Regarding more recent change in the habitat status (i.e. during the last five years) the four interviewees who knew the site, perceived no significant change to have occurred to the status of the remaining habitat.

6. Stakeholder and local community views regarding main threats to Falasarna environment.

During the workshop extensive dialogue between participants regarding the main threats to the natural environment were carried out and summarized on post it notes. The threats which were discussed were not exclusive to the boundaries of the habitat, but incorporated the wider landscape and issue surrounding the area which could potentially have an impact on the site.

The presence of road cutting the habitat in two was a significant issue (Figure 2.2). The threat of uncontrolled sand removal for construction (cement mix preparation) and for creation of a substrate for greenhouse construction from the area was identified as a potentially very big threat. Tourism and campers to the wider area were considered a threat due to the lack of management. However, visitor impacts to the actual habitat were unknown.

Uncontrolled development in the area for tourism development and increasing pressure for construction was mentioned as a threat.

Greenhouses were considered as a threat for many reasons.

- Plastic waste and air pollution due to the mal practice of burning old nylon sheets
- Contaminated (fertilizer and pesticide) surface and ground water run off which could be entering the habitat.
- Due to over abstraction for cultivation – underground water table is becoming salinated.
- Conflicting land use priorities encroachment and risk of future development of actual habitat

An issue regarding the ownership status of the actual habitat was raised- one stakeholder commented that it may be perceived as private land which may lead to conflict. – an issue which has been expanded upon in Section 3.

Overgrazing in the area was also mentioned as a potential threat to the habitat (Figure 6.1).

Public authorities at the table expressed the difficulty and lack of procedural tools to regulate and protect the site. Issues of lack of implementation of existing local plans were also raised.

Lack of awareness of the local population regarding the value of the site as well as of public stakeholders were presented as an important issue. As a non- site specific issue, of interest is the fact that 52% of local community respondents perceived the lack of public awareness to be a threat to Falasarna’s environment in general, indicating the value of the D actions of JUNICOAST.

Figure 6.1. Evidence of heavily grazed junipers in Falasarna 2250* site.

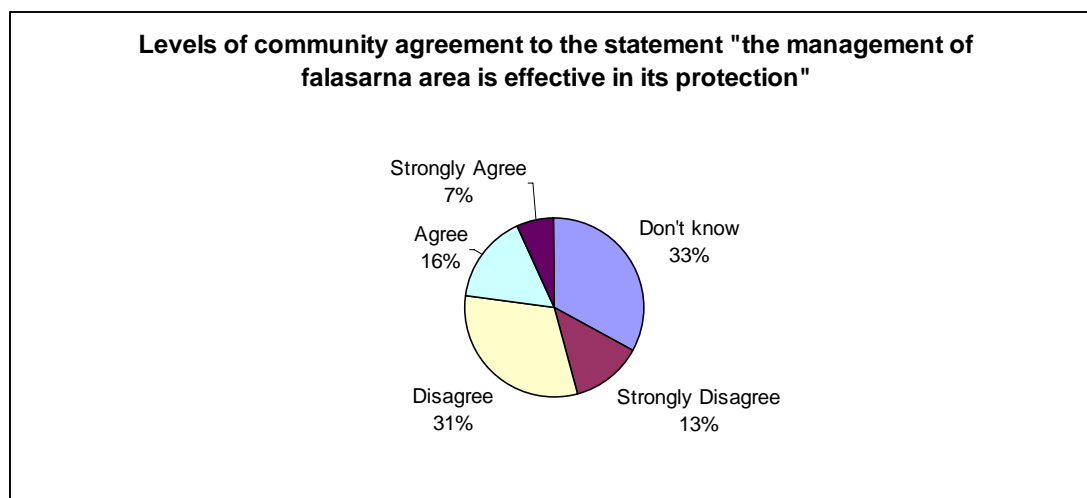


7. Perceived management and conservation effectiveness

Both the local community and decision making stakeholders were questioned with regard to whether they perceived that present management was effective in ensuring the environmental conservation and protection of Falasarna.

As aforementioned, reference was not being made to the specific habitat, rather the larger Natura 2000 area. Stakeholder responses were negative, with justification that no management measures are being taken in the area. The community expressed sentiment through questionnaires was along the same lines with 44% of community stating that is not effective (Figure 7.1) and 33% claiming ignorance.

Figure 7.1 Local community perceptions of existing management effectiveness



Public authority stakeholders (PS and PSL Table 3. 1) were questioned with regard to the existing capacity of their authority to fulfill its duties in relation to the site. National and regional level authorities openly stated not to be able to fulfill their duties, stating barriers such as lack of information, never having visited the areas and lack of ability to do so. Local authorities, tended to be in agreement with regard to being able to fulfill their duties, however, it was pointed out that their duties with regard to Natura2000 site management were undefined. Mentioned barriers related to governance issues such as unclear governance and management structures, lack of

knowledge on NATURA2000 and procedures for protected area management, as well as procedural barriers relating to understaffing and inadequate resources. The majority of issues being subsequently attributed to the lack of political willingness for change and commitment to environmental protection.

The 35% of local community respondents perceived local authorities not to be fulfilling all their duties with regard to Falasarna, and 45% stating that they did not know whether they were or not.

This signifies the importance of Action 9 investigation of governance as well as the need for simultaneous stakeholder and community engagement during the dissemination and education campaign (D actions)

8. Present stakeholder and local community engagement effectiveness

As mentioned earlier a participatory approach to protected area management is purported through the Habitats Directive, and subsequently a key component of the JUNICOAST project. However, there is no information on existing NATURA2000 participatory processes and their effectiveness, and neither for this site.

Thus, stakeholders and the local community were questioned to establish whether stakeholder and community consultation was being carried with regard to protected area management decisions, and the extent to which they felt they were effective or adequate.

All but two public service stakeholders claimed that present consultation and collaboration between stakeholders was inadequate for the effective environmental management and protection of Falasarna. Indicative was a comment by a local NGO which stated:

“we don't know when, this area was made natura2000, who made it, why.. based on what criteria, and what implications that has for the area... No one has taken the time to explain anything there is a general lack of awareness and local people are increasingly becoming negatively predisposed to the idea of protected areas”

With regard to local community consultation for Falasarna environmental management decision making, only 4 out of the 16 stakeholders interviewed perceived Local community consultation to be carried out effectively. The remaining 12 stressed either a great lack of environmental sensitivity and awareness for the specific area, or at a generic level the need for greater environmental education and awareness raising efforts. This problem was confirmed through the community survey whereby an overwhelming 90% stated *never* and 4% *rarely* (See Figures 8.1 & 8.2).

Figure 8.1 Extent of community consultation

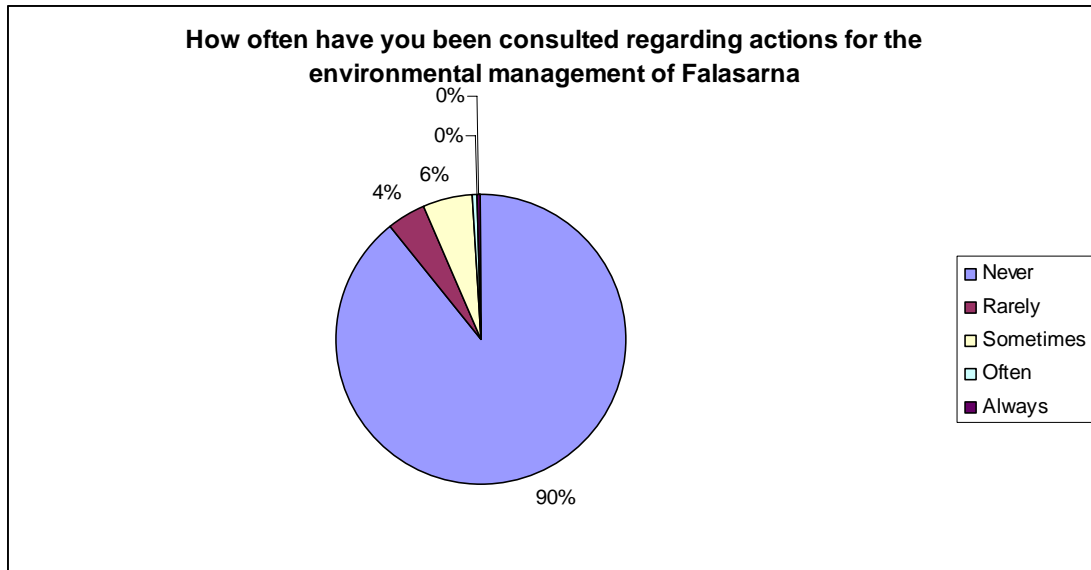
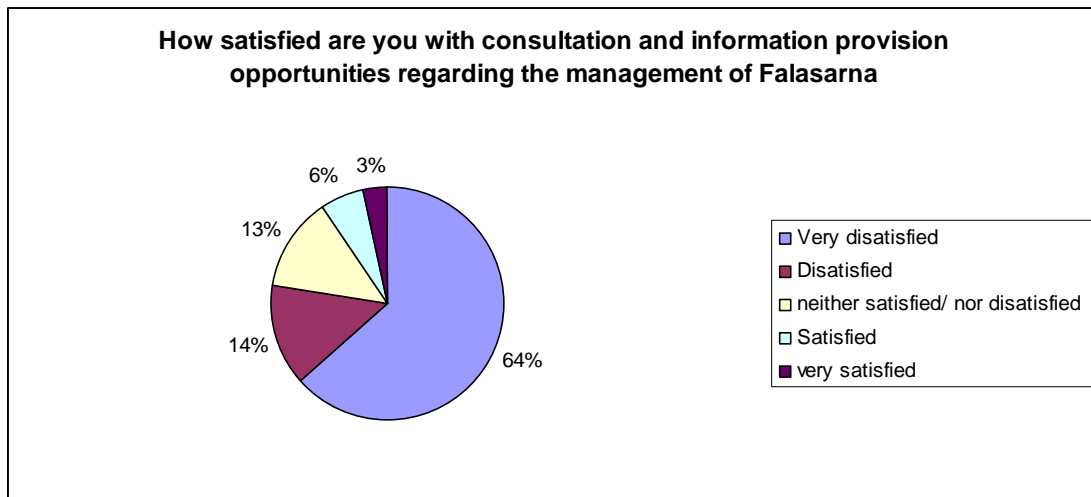


Figure 8.2 Local community satisfaction with existing information provision and consultation opportunities.



The above results indicate the importance of providing opportunities through JUNICOAST to increase information provision as well as the development of a holistic communication strategy and after life communication plan.

9. Levels of awareness and information provision

One of the main objectives of this action was to establish current levels of stakeholder and local community awareness regarding priority habitat 2250* and localities in Crete.

Environmental awareness levels in Falasarna, simply put are **low**. As aforementioned, the majority of stakeholders and community do not even know about the presence of priority habitat 2250*.

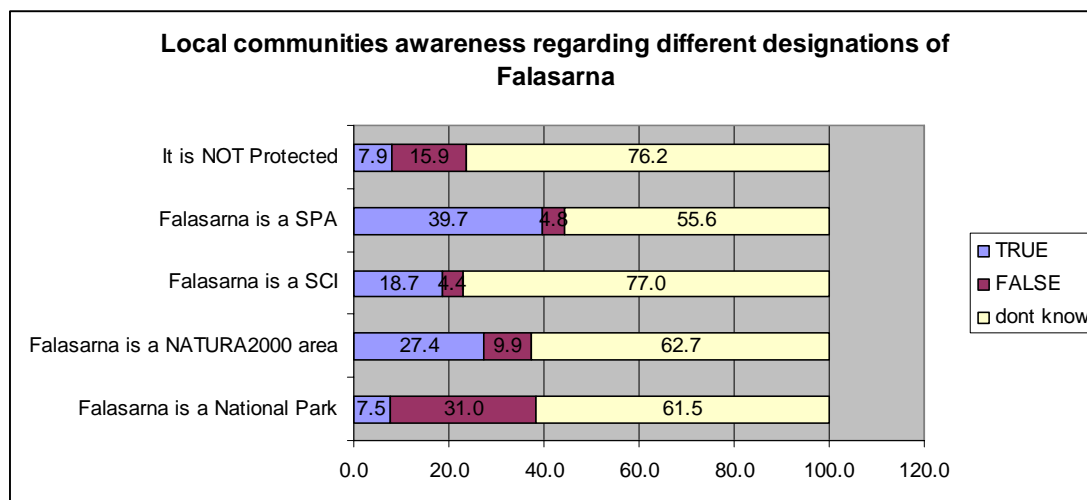
What was established from the interviews was that stakeholders know designations according to capacity, meaning archeologists knew archeological designations, port authorities knew restrictions according to their domains legislation etc. Despite the numerous years which Falasarna has been established as Natura2000 area 50% of interviewees did not know of the designation status of the site, and like in other cases stated confusion or lack of understanding what this meant in practice and what legal implications such a designation had.

Interestingly regarding environmental protection only one stakeholder interviewed either knew what priority habitat 2250* was or had not heard of this classification before.

Awareness regarding the environmental protection status and designations of Falasarna amongst the community also proved to be problematic (Figure 9.1). Indicatively for statement *Falasarna is not protected*, 83% believed that this was the case or were unsure. Only 27.4% of the community recognized that Falasarna was a Natura 2000 area, indicating their limited involvement and information provision during the designation phase of the areas as well as subsequently.

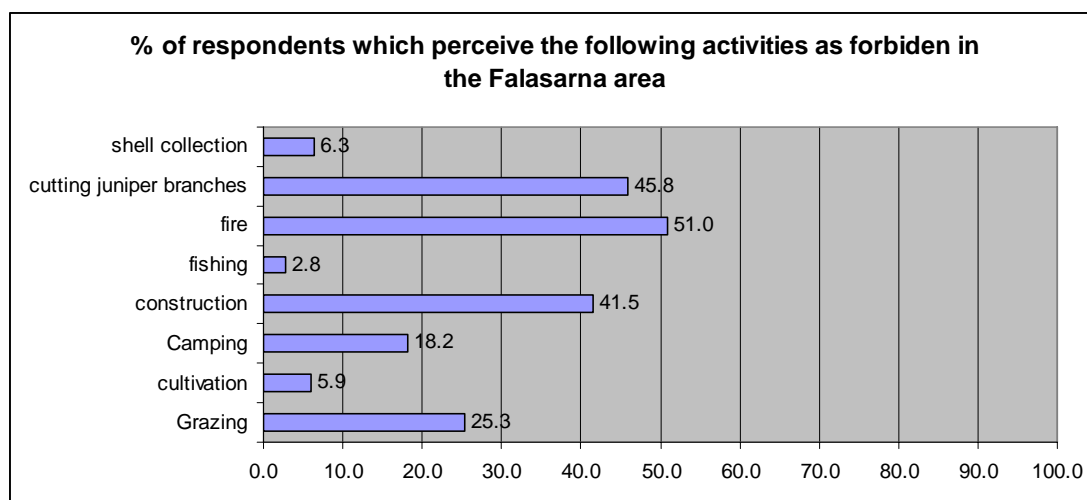
The above results indicate the need for an integrated communication strategy to both decision making stakeholders as well as the local community regarding priority habitat 2250*, Natura2000, and its implications for the environmental management and protection of the site.

Figure 9.1 Local community awareness regarding environmental designations of Falasarna.



Stakeholders and local community were asked to specify which activities were prohibited on the site. Awareness amongst interviewed stakeholders was in many cases fragmented and responses reflecting stakeholder professional background. In the case of the local communities perceptions with regard to what is prohibited or not in Falasarna in general (Figure, 9.3) it is evident that more work is required regarding clarification of allowed and forbidden activities. What can be observed is that the majority of respondents perceive incorrectly many actions as illegal or prohibited even though they are not by law.

Figure 9.3 Local community perceptions of prohibited activities in Falasarna



Based on the Habitats Directive, NATURA2000 sites management and status should be subject to regular monitoring. However, based on interview results it was established that apart from the absence of a formal management and action plan, there is no monitoring strategy for Falasarna. Of concern is the fact that National and Regional Authorities claimed never to have even visited the site as well as to not obtain any information on it.

10. Proposed actions for the environmental protection of Falasarna.

In this section the results of stakeholder workshop, interviews, personal communications and community survey, regarding their views on what actions should be carried out to protect Falasarna are presented collectively and juxtaposed – were relevant to proposed JUNICOAST actions. Information on this point was obtained using open ended questions to which content analysis using coding was conducted.

From the responses obtained different types of recommendations occur all of which are presented. However emphasis and detail is placed with regard to recommendations which inform JUNICOAST Concrete conservation actions as well as D actions. During the workshop participants made a number of recommendations summarized in Box 10.1

Box 10.1: Recommendations made by stakeholders during workshop

Minimization of overgrazing
Local community- visitor and public authority awareness raising
Compensation measures for private land owners in priority habitat
The development and implementation of an action / management plan
Official Determination of land use
Designation and effective management of archaeological sites and establishment of management/ protection zones
Effective management of NATURA 2000
Installation of information signs
Legal protection and on site regulation
Determination of forest status of site
Fencing of site

The local community made a number of recommendations, from which it became apparent, that they were not referring to the designated and mapped 2250* habitat but other juniper populations further north of the site. Following the site visit, it was in fact established that this is a 2250* classified habitat, but which has not been mapped as such in the NATURA2000 network, and was thus not included in the proposal. It is thus proposed, that during the implementation of the JUNICOAST proposed actions for Falasarna, both sites will be considered and actions will be implemented according to context specific suitability of each site.

Of interest was the request of local community respondents for further research and actions in demarcating the habitat boundaries and fencing (14) as well as information on the junipers themselves, and requests for the creating of land use maps and zonation demarcation.

This was also linked to the majority of recommendations which proposed the provision of information to different audiences including the younger generations and visitors. More than in other site, the need to raise awareness of locals was emphasized.

The second most common recommendation proposed from the survey was the need for improved waste management.

A number of requests linked to legislation enforcement were made such as banning of grazing, camping, camp fire lighting and construction, which however, do not refer to the specific habitat. 16 respondents proposed guarding of areas, where as 10 made reference to the need for public authorities to take action or fulfill their responsibilities. Finally, 9 respondents made reference to the need for habitat restoration activities in particular planting of juniper trees.

11. Recommendations and conclusions

Based on the outcomes of Action A.6 “Stakeholder consultation”, a number of issues and recommendations have been drawn.

- Ownership status and boundaries of Habitat 2250* need to be clarified.
- Determination of applicability of forest protection legislation of existing site and implications regarding its management (i.e. is it designated as forest land?).
- Identification of ways of obtaining consensus and collaboration of private land owner.
- There is a need for an extensive awareness raising campaign regarding NATURA2000 in general and the values and need of protection as well as ways of doing so with the local communities as well as authorities.
- Having identified boundaries of 2250*, there is a need to map them and present information to public authorities, together with information on the habitat – as awareness was established being very low.
- There is scope for providing visitor information on NATURA2000 and the habitat on the large beach or non designated juniper beach, where visitors and locals go to, rather than on the private – non used site. By attracting attention to the privately owned yet designated habitat, there is a risk of causing visitor damage to a previously non visited- yet very small and fragmented habitat, which would not be in line with the conservation objectives of the project.
- Visitor information opportunities and necessity of such actions is considered of paramount importance, yet the identification of visitor information sources is a priority.
- Waste management actions are necessary and there is scope to pursue collaboration with the municipality of Kissamos for more effective waste collection.

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Appendices

Appendix A: Report on stakeholder workshop (25/2/2009) and Evaluation of stakeholder engagement methods with the following annexes:

Annex A: List of all potential stakeholders contacted for involvement

Annex B: Greek Summary of Project

Annex C: Agenda of Stakeholder meeting and invitation letter

Annex D: Participant Booklet provided at workshop

Annex E: Draft educational programme for review provided at workshop to stakeholders

Annex F: Example of Draft community survey questionnaire provided to participants

Annex G: Participant Workshop Evaluation Feedback questionnaire

Appendix B: Stakeholder interview template for Falasarna

Appendix C: Community survey questionnaire