British Ecological Society

Environmental Responsibility for Expeditions

A guide to good practice

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edited by

Mark Smith

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YOUNG EXPLORERS' TRUST
The Association of Youth Exploration Societies

Preface to the First Edition

This guide to Environmental Responsibility for Expeditions was written in response to discussions within the Education and Careers Committee of the British Ecological Society and at a conference on Expeditions and the Environment organised by the Young Explorers' Trust in Warwick, March 1995.

Applications for grant aid or ecological advice to expeditions leaving the UK appear to be increasing. Many of these expeditions go to environmentally sensitive regions of the world to collect data to support conservation measures. Without these expeditions the status of many of the worlds remote regions would be less well known and understood. However, when these groups visit the selected area, they must be aware of the intrinsic effect that their presence, field techniques and other methods will have on the habitats under consideration, or even just passing through.

Other groups may be visiting an area for reasons other than conservation or ecological investigations and they also must justify their presence in the current light of environmental conservation.

In supporting an ever increasing number of expeditions, the consequent damage to the environment is, by inference, being condoned by the two Societies. It is hoped that by producing these guidelines, the expeditions and the international scientific community will become more aware of the effects they have on the environment and change their behaviour pattern to minimise the impact.

Ian Newton President, British Ecological Society

Clive Jermy Chairman, Young Explorers' Trust

Preface to the Second Edition

Since the first edition of this guide was published, concerns surrounding the environmental impact of expeditions have grown. The number of expeditions leaving the UK each year, especially in the youth sector, has increased. In the light of this and the increasing environmental awareness of the average expedition member, the British Ecological Society and the Young Explorers' Trust consider the updating of this series of checklists to be both timely and necessary. For the expedition movement to retain its environmental credibility, it is now more important than ever that all those planning and executing expeditions take account of the inevitable impact of their activities on their natural and human surroundings. It is the hope of both Societies that these checklists will continue to promote appropriate environmental sensitivity on the part of the expedition groups that they endorse by their support.

John Grace President, British Ecological Society

Jon Fleming Chairman, Young Explorers' Trust

INTRODUCTION

The British Ecological Society and the Young Explorers' Trust have been supporting expeditions for many years. Within their spheres of influence each organisation has been concerned with the success and safety of the expeditions they support. This begins with the successful planning and the organisation of the expedition. An important part of this planning and organisation should involve consideration of the likely damage an expedition might do to the environment and the steps that should be taken to minimise such damage.

This publication is not a comprehensive handbook on reducing environmental impacts. Much has been written on the techniques of minimal impact camping, using vehicles on expeditions, working with local communities, and on specific fieldwork techniques. Expedition leaders must seek further information if they require additional practical detail. Instead, this guide is designed to prompt thinking during the initial planning of an expedition. Expedition leaders are expected to consider each of the points made in this guide and bear them in mind when deciding where to locate campsites, identifying access routes, choosing fieldwork projects and so on. The checklists at the end are for photocopying for the benefit of leaders during planning, and for use as an audit during screening by the two organisations.

Before an expedition will be considered for grants or approval by either organisation, it must be able to show that the group have an adequate plan to limit their environmental impact and that they will be able to implement that plan in the field. They must be able to demonstrate the steps they intend to take in order to keep the impact of their activities on the local environment to a minimum. It is important that a group ethos is developed so that all members of a group take responsibility for the consequences of their actions, not just the leaders.

REDUCING THE IMPACT OF MOVEMENT AND ACCESS

Travelling to an expedition area and moving around during the expedition potentially have very significant environmental impacts. Most overseas expeditions use air travel and this arguably results in the biggest environmental impact of all, but this must be offset against the value of the expedition in terms of what it achieves. It does make it important however, that that the expedition is sufficiently well planned and executed so that the benefits gained justify the environmental cost of long distance travel. The frequency and type of movement to project sites or centres of activity during the expedition must be considered carefully at the planning stage.

on foot or with pack animals

- *keep the number of movements to a minimum*
- *stick to existing paths or tracks wherever possible – do not take short cuts or leave the path to avoid difficult sections since this widens the track*
- *move quietly and carefully, observing the surroundings and be aware of your impact on animals and plants in your path*
- *be aware that damp vegetation and wet ground is more susceptible to damage than in dry conditions, and that some types of surface or vegetation (such as arctic, tundra, swamp or marshland, desert, salt pans) are far more sensitive than others and may take much longer to recover*
- *where there is no existing track, consider the size of the group, the fragility of the surface or vegetation, and the frequency of use before deciding to spread the group out or form a new track*
- *in tundra or desert, the use of dry streambeds or rocky areas as pathways will limit damage*
- *in tundra or marshland, areas covered in grasses or sedges are likely to be more resistant to damage and faster to recover than other vegetation*
- *build temporary walkways over sensitive areas if the route will be used frequently during the expedition*
- *avoid going directly up or down steep slopes; take more gradual zig-zag routes*
- *on snow, use skis or sledges where possible, and be aware that compacted snow takes longer to melt and can damage underlying vegetation*
- *avoid cutting trails through forests or tall vegetation; if absolutely necessary, use good quality, sharp tools to cause the least damage, and cut vegetation in such a way as to promote regeneration, which will be much faster in tropical regions*
- *avoid marking routes with waymarks; if unavoidable, use removable marks e.g. chalk)*

vehicles

- *drive slowly and carefully and plan to minimise the number of journeys made*
- *follow existing tracks – do not take short cuts or leave the track to avoid difficult sections since this leads to track braiding*
- *use the smallest and lightest vehicles appropriate for the task and terrain*
- *where there is no track, try to avoid unstable surfaces such as mud, soft sand and crusty surfaces that are more susceptible to tyre damage*
- *avoid steep terrain and damaging vegetation – take the long way round if necessary*
- *avoid fuel spillage when re-fuelling*

boats

- *plan to limit the number of journeys, and avoid the use of power boats for purely recreational purposes*
- *do not use an engine unless you have to; use rafts or canoes instead*
- *if engines are used, try to limit the noise and backwash by moving slowly and using the engine at low revs*
- *on reefs or other sensitive coastal areas, be aware of possible anchor damage*

REDUCING THE IMPACT OF CAMPSITES

The overriding aim is to leave as little trace of the campsite as possible. Campsites on small expeditions will differ in their impact from those where there are perhaps fifty or more people in the same place at the same time, whilst permanent base camps will present a different range of problems to transient overnight camps. A good deal has been written on the practical techniques of minimum impact camping, and expedition leaders should be familiar with such principles before starting to plan the expedition. Although some of the points below can be considered during the planning phase, some decisions and action can only be taken when local conditions at the time are known.

location

- *avoid sensitive environments or vegetation types*
- *consider the impact of the camp on surrounding land use*
- *find out about land ownership – is any permission required?*
- *be aware of extent of use by local inhabitants (such as local footpaths or grazing areas)*

site

- *ideally campsites should be found rather than constructed (avoid clearing vegetation, building stone windbreaks, constructing shelters or digging drainage ditches wherever possible)*
- *in heavily used areas, concentrate impact on sites with obvious signs of prior use to avoid extending any damage; in pristine areas, disperse the impact as far as possible*
- *choose resilient sites such as rock, gravel, sand or grassy areas in existing clearings rather than wet or fragile surfaces that are easily eroded or dense vegetation under trees that will be trampled*
- *avoid disturbance to animal feeding / nesting / watering sites and routes to / from these sites (which often include water holes in deserts and beaches on coasts or river banks)*
- *maintain a reasonable distance, ideally at least 75m, away from any water course to avoid contamination (as well as any risk of flooding or large animals coming to drink)*
- *heavily used communal areas such as fires and cooking sites should be located on surfaces or vegetation most resistant to trampling*
- *siting of such communal areas, sleeping areas and latrines should take account of the pathways that will inevitably be trampled between them*
- *consider the impact of tents on vegetation – on permanent sites, move tents regularly*
- *keep noise level low and be sensitive to the visual impact of tents and bright lights (in some areas, this may be useful for security as well as for environmental reasons)*

fires

- *consider if open fires should be used at all – in areas of fuel-wood shortage alternative fuels should be used*
- *be aware that in some protected areas, collection of fuel-wood is prohibited*
- *be sensitive to the risk of fire spreading in dry vegetation*
- *re-use existing fire rings if they are already present*
- *minimise heat damage to the soil microfauna by using a metal fire tray, building an insulating mound, or by removing a layer of topsoil and replacing it afterwards*
- *do not deplete supplies of fuel-wood for local people – where fuel-wood is scarce, this may mean considering an alternative means of cooking*
- *keep any open fires small*

- *avoid burning large logs – they are often important animal habitats and they are difficult to burn completely to ash leaving persistent charcoal in the environment*

fuel

- *store carefully, remembering that liquid fuel may expand when the temperature rises, causing leaks*
- *avoid contaminating soil or water courses with fuel spillages*

waste

- *for large standing camps, a complete waste management plan is required*
- *take account of any local policies regarding waste disposal, but do not simply adopt less rigorous local policies for your own convenience*
- *minimise disposal problems by reducing packaging, especially plastics, brought into the site in the first place*
- *use biodegradable materials and products as far as possible*
- *avoid windblown litter by keeping the site tidy*
- *ideally, bring out all waste and dispose of appropriately*
- *alternatively, burn as much organic waste as possible, including food waste and paper packaging, bringing out problem materials such as tins and plastics (burning plastics releases toxins into the environment)*
- *burning is preferable to burying; if remaining waste must be buried, it must be deep enough to avoid attracting animals or local people and well away from water courses and sites subject to frost heave*
- *an appropriate method of dealing with human waste must be adopted; there are a number of options ranging from group pits to individual burying depending on the number of people, the duration of the camp, and the nature of the location*
- *all toilet paper and sanatory products should be brought out or burnt, depending on any local codes of practice*
- *latrines should be located at least 75m away from water courses to avoid contamination of the water supply with coliform bacteria*
- *washing of bodies or clothes should not be carried out in any water course*
- *any washing using soaps should be at least 50m from any water course to avoid nitrate and phosphate enrichment*
- *suitable soakaway areas should be constructed to dispose of soapy water*

departure

- *allow adequate time for clearing the site*
- *ensure any fires are completely extinguished, scatter ash widely, and replace topsoil or level the fire mound*
- *check that any buried waste is completely and adequately covered*
- *repair tracks and paths as far as possible*

PROMOTING GOOD COMMUNITY RELATIONS

Most expeditions interact in some way with local inhabitants, and all expeditions, regardless of their objectives, must consider their relationship with their host country. It should be recognised that to a certain extent expeditions will change the communities they aim to experience; cultural exchange is not possible without some erosion of cultural differences. Expeditions should be sensitive to their impact on local communities, acknowledge that they are privileged visitors to a host country, and recognise that cultural sensitivities may impose constraints on their activities.

social relationships

- *ensure that expedition members are aware of the economic and cultural background of the host country and community*
- *establish early contact with the host community, and, where an expedition will have close contact with a community, try to ensure that the expedition has the support of the majority of the community rather than just one individual, however, important or influential*
- *minimise intrusion into the lives of community members - only visit settlements when invited and be discrete, quiet and respectful*
- *if possible involve leaders and members from the host country in the expedition*
- *ensure that local participants are equipped and subject to the same safety standards as the rest of the group*
- *try to avoid one-off visits; consider a rolling programme of re-visits, establishing more permanent links with the local community, and following up on any projects (this can often produce more worthwhile and productive results)*
- *where possible, aim to build on previous work by expeditions to the area rather than simply repeating such work*

cultural differences

- *be aware of conventions for dress, religion, drugs (including alcohol), and observe them*
- *observe national customs such as respect for flags, national anthems, tipping*
- *avoid insensitive or public discussion of political or religious issues*
- *avoid exploiting the hospitality of local people and over-indulgence with food or alcohol*
- *avoid excessive display of wealth and ensure that expedition members avoid insensitive comment about local conditions or customs*

medical treatment

- *be aware that requests may be made for medical treatment*
- *ensure that all such requests are dealt with by an appointed and appropriately qualified member of the expedition so that appropriate treatment is provided*
- *do not give local people substitutes for medicines (e.g. sweets)*
- *consider the long term effect of short term treatment using western medicines – if the individual remains ill or dies, the credibility of medical treatment in the local community may be damaged*
- *consider leaving medical supplies at the end of the expedition (but ensure that they are left with an appropriately qualified person and be aware that shelf life may be limited)*

photography

- *ask before taking photographs of people (for photographs of children, ask parents if present), domestic animals, houses, or other property*
- *be sensitive to the fact that sometimes taking a photograph is simply not appropriate – a memory may have to be sufficient*

- *be aware that gifts or money may be demanded for photographs, and that polaroid cameras provide instant pictures for such gifts (this is often preferable to giving sweets or money to children)*
- *realise that giving gifts to children can cause fights and can have upsetting consequences*

economic relationships

- *expeditions should not rely on scant local resources; do not entice local people to sell food that they may need later in the year*
- *try to ensure that the expedition spends money in the host country, and better still, the local community for equipment, goods, and local services such as guides*
- *have a policy on appropriate responses to begging and take account of local attitudes to beggars (they may be tolerated, but equally they may be thoroughly disapproved of)*
- *be sensitive to the dignity of local people; refrain from requesting to buy traditional artefacts for souvenirs – such artefacts may be basic requirements for everyday life, and money given in exchange may be of no immediate value*
- *be aware of the possible consequences of exchanging items such as clothing for souvenirs– it may change the attitudes and expectations of local people, and will have implications for subsequent visitors*
- *consider leaving equipment or tools for the use of the local community but try to ensure that these are in good condition, and that they will be fairly distributed, preferably to a community organisation rather than an individual, to avoid resentment*
- *ensure that any equipment can be maintained by the community once the expedition has departed*
- *be aware that local people involved in the expedition may not be able to afford expensive personal equipment; plan to avoid two tier participation*
- *ensure that the expedition is as self-sufficient as possible in terms of evacuation or rescue*

community projects

- *projects must be suggested by the local community to ensure that they are socially and politically acceptable*
- *use intermediate technology*
- *ensure that the project will be sustainable by the local community after the expedition has left*
- *design projects to use local labour and perhaps to create employment*
- *use local materials but be mindful of the associated environmental consequences*

RESPONSIBLE FIELDWORK

Many expeditions carry out some form of fieldwork. The intention is often to find out more about a particular area so that it can be managed more effectively. There is little point in carrying out such work if it results in damage to the site, however unintentional. Some habitats are increasingly rare and threatened and others are especially vulnerable to damage. Expeditions to such places must be planned and executed particularly carefully. The likely benefit of the expedition and its research must fully justify any adverse impact on the environment. The possible impact of any subsequent expeditions must also be taken into account.

location

- *if the expedition is primarily educational (eg a youth expedition) rather than a research expedition, it will be difficult to justify the use of any particularly sensitive habitat for the fieldwork*
- *if the chosen location is environmentally sensitive, consider whether the same work could be carried out in a different, less environmentally sensitive, location*
- *try to avoid working in vulnerable sites or sensitive conditions such as steep slopes, areas of slow growth rate, still water or habitats containing rare species (unless that species is the focus of study), nesting seasons, dry seasons, or heavy rain*

local liaison

- *try to ensure that the work will benefit the host country (might the work contribute to national or local management plans or to biodiversity strategies?) and the local community*
- *obtain approval for the fieldwork from the host government or other relevant local agencies*
- *involve the host country or local scientists in the expedition fieldwork*
- *try to ensure that the local community understands the purpose of the work (local people may misunderstand the motives of the expedition and the reason for the research, leading to resentment and a lack of co-operation)*

permits

- *ensure that all appropriate national and local permits to carry out the fieldwork are obtained; if the study site is within a protected area, seek relevant permission and obtain any necessary species or work-specific permits (such as for trapping or ringing)*
- *if samples or material is to be collected or transported, obtain appropriate permissions, and ensure that CITES or other local restrictions are observed*
- *if necessary, obtain a permit to import material into the UK*

project

- *research the project thoroughly to ensure that you are not duplicating previous work to no additional gain*
- *do not collect biological, geographical or social samples unless fully justified; photographic verification of identification can be preferable for biological material*
- *take account of the conservation status of any species before collecting biological samples*
- *avoid damage to sensitive habitats by varying access routes into study sites and working in small groups*
- *ensure that adequate expertise exists, or suitable training is provided, in the use of specialist techniques such as mist-netting or trapping*
- *be aware of the importance of species or sites to local people in terms of taboos, worship, or other forms of use*
- *avoid permanent marking of sample sites or quadrats unless it is part of an approved long term study*

reporting

- *for the work to have any value, the results must be written up and disseminated*
- *ensure that copies of the results are provided to local contacts and host country institutions*
- *respect the intellectual property rights of local communities that have contributed to any data, and ensure that their interests are protected*

Checklists

1 Access and movement

1.1 Are you keeping to established routes/tracks? If not, how are you establishing your own routes?

1.2 Have you chosen the least damaging routes to and from campsites or sites of activity? Will these routes be varied to reduce impact?

1.3 Are all the expedition members aware of techniques for minimising movement impact? What training will be provided?

1.4 Are you making the minimum number of journeys during the expedition?

1.5 Have you the resources and expertise to minimise damage to sensitive areas e.g. walkway construction?

1.6 Will you be using vehicles or power-boats? How will you limit noise and damage?

1.7 What arrangements will you have for re-fuelling, and how will you avoid leakage and spillage?

1.8 Will you be using pack animals? What will their impact be on the surroundings?

1.9 Will you have a designated movements/transport officer?

2 Campsites

2.1 Do you have adequate information about the environmental sensitivity of campsite locations?

2.2 What will the conditions be like during the season you are visiting, and will they require any special care?

2.3 Who owns the land and how will you obtain permission to camp, if required?

2.4 How much interaction can you expect with any local inhabitants around the campsite?

2.5 Can you justify the location of your campsites in terms of minimum impact?

2.6 On reaching potential campsites, what is your procedure for checking for sensitive areas, nesting sites, animal drinking access, etc?

2.7 Who will manage the campsite and monitor environmental impact?

2.8 How will you minimise trampling and/or tent damage around the campsite?

2.9 How will you cook? If you are intending using open fires, do you know how much fuel-wood is available, and can you justify using it?

2.10 How will you minimise the damage caused by using open fires?

2.11 What is your waste management plan?

2.12 What steps will you take to reduce the expedition's waste?

2.13 How do you intend to deal with human waste, and is this the most appropriate method for the situation?

3 Local communities

3.1 Is the local community aware of the expedition and its aims, and what evidence do you have that it is supportive?

3.2 Do you have all appropriate permissions for working in the area?

3.3 Who will liaise with the local community and who is your contact in the community?

3.4 If you intend carrying out a community project, how have you ensured that it is supported by the community, and that it is appropriate and sustainable?

3.5 How will expedition members be briefed about maintaining good community relations?

3.6 Have you considered all local options for supply of goods and services? If you are not using local sources, can you justify this?

3.7 Are you certain that you are not using crucial local resources?

3.8 What is your policy regarding requests for medical treatment?

3.9 How will you avoid compromising the safety of any local participants?

3.10 Will the expedition be self-sufficient in terms of evacuation and/or rescue?

3.11 Do you plan to leave any equipment or materials with the local community? How will you ensure that this will be distributed fairly and utilised appropriately?

3.12 Will there be any follow-up with the local community after the expedition?

4 Fieldwork

4.1 What permissions or permits do you require to carry out your fieldwork?

4.2 What liaison have you had with host country scientists or institutions, and who is your point of contact?

4.3 Do you have adequate information about the environmental sensitivity of fieldwork sites?

4.4 What will the conditions be like during the season you are visiting, and will they require any special care?

4.5 How sensitive is the site to trampling, use of vehicles, collecting samples etc?

4.6 Are there any cultural sensitivities you need to be aware of in relation to your fieldwork?

4.7 Has any work of a similar nature already been carried out in the area and if so, can you justify any further similar work?

4.8 What are your sampling techniques, and will they result in any adverse environmental impact?

4.9 If necessary, how will you minimise the impact of repeated visits to the same site during the expedition?

4.10 Will you be collecting any material and if so, why is this necessary?

4.11 What fieldwork expertise exists in your team, and / or what training will expedition members have in the necessary fieldwork techniques?

4.12 Who will monitor your impact on the environment during the expedition?

4.13 How will your results be disseminated, and what arrangements do you have for ensuring that the results are communicated to the host country?

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Further information on all aspects of planning expeditions can be obtained from the Expedition Advisory Centre

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