GUIDELINES ON

PLANNING AND MANAGING THE ERADICATION OPERATION

PURPOSE

- These Guidelines are to be used by Project Managers conducting eradication projects based on the PII Resource Kit for Rodent and Cat Eradication.
- The Guidelines provide advice and help on planning for and conducting an eradication operation

1. THE OPERATIONAL PLAN

- The Operational Plan is a living document. As the project progresses you will need to make changes to the plan. The important changes will need to be reflected in the Operational Plan so that it always reflects the up to date plan.
- The changes can be for a number of reasons, for example:
    - consent to use a particular bait is granted but the consent includes constraints on where (or when) the bait can be used;
    - community consultation establishes that a planned technique will need to be adapted if it is to receive the support of the community;
    - trials during the Operational Planning Stage establish that greater work than originally planned will be required to manage the risks to non-target species.
- As the Operational Plan changes you need to revisit the question of technical feasibility and sustainability (first assessed in the Feasibility Study Stage). It is important, after any significant change to the plan, to ask:
    - Is the project still technically feasible?
    - Are the outcomes sustainable?
    - Do the benefits still outweigh the costs?
- If a change makes the project no longer feasible or the benefits no longer outweigh the costs then you need to act: either stop the project or address the issues by a change of plan.
- The independent technical review of the Operational Plan is a key step in ensuring you are well prepared for the Implementation Stage. When significant changes do occur, have the independent technical advisor review the changes.

2. PLANNING THE ERADICATION TECHNIQUE

- When planning it is useful to break the eradication operation down into the 3 phases:
    - Pre-operational. Preparation for the operational phase.
    - Operational. Applying the bait, laying the traps or hunting, depending on the species and technique
    - Post-operational. Tidying up and leaving the island
- Be realistic about target dates. For example know how long it will take to make the bait at the factory in New Zealand and transport it to you. Consider contingencies as operations do not always go according to planned day or time. Factors such as weather, wind conditions (can delay boats, helicopters) can cause hold ups.
- Trials/tasks required to resolve any outstanding technical issues need to be commenced early in the Operational Planning Stage to give maximum time to complete the work
- Consider best timing to undertake operations (linked to weather conditions). Weather is a particular issue when doing baiting operations and particularly aerial baiting. Use a local weather expert to assist you
- If you do set up work prior to the eradication consider how long it will be till you return - will what you have done still be effective? For example on Mabualau Island in Fiji, gridlines were marked out five months prior to the operation. When they returned to do the eradication there were no signs of the marked transects. The team had to remark the whole island again. This was time consuming and tiring.
- For ground-based operations consider practicalities and ground conditions. For example on Mabualau 60% of the island is covered by sharp rocks with deep channels and rock crevices – this made it very challenging for people carrying buckets of bait when hand spreading. Workers had to watch their step while spreading bait and bait often fell into the crevices
- For ground-based operations consider also vegetation and any wildlife that may pose risks. On Mabualau dense vegetation restricted access in some areas and snakes were present.
- How many people and what gear and equipment do you need for each technique?
- Small teams are easier to manage, organize logistically and cost effective. Training prior to eradication is essential to save time and effort trying to explain to team members what they should be doing.

3. MANAGING THE HEALTH AND SAFETY

3.1 COMMON HEALTH AND SAFETY ISSUES

Task	Dangers	Examples of safety measures
Use of baits	Low risk of poisoning for some people from handling bait, e.g. from dust.	• Follow all manufacturer's instructions • Training of users in safe handling and use • Safety gear – gloves essential • Dust masks, overalls when dust is an issue (e.g. emptying bags, loading helicopter bucket) • Wash hands after use/before eating • Do not use empty buckets to store food • Have a system for collection & disposal of bait bags and buckets • Have stocks of Vitamin K on island (antidote to brodifacoum)
Use of traps	Easy to get hands caught in them! Can be a health issue when removing dead animals	• Training of users • Maintain traps to high standard • Wear gloves when clearing • Wash hands after use/before eating
Aerial baiting	Multiple risks, e.g. helicopter blades, dust, noise *Note: A measure of a good helicopter company is one that develops its own site safety plans with the client*	• Training of users • Appoint an experienced aerial operations manager • Safety briefing of all people prior to operation • Maintain closed area around helicopter landing area
Boats	Loading and unloading boats and using boats can be hazardous especially if weather changes, or in locations where there are reefs, difficult access	• Use only experienced boat handlers (includes experience with local conditions) • Loading & use to be supervised by experienced person • Do not overload boats • Evenly distribute loads • Life jackets must be worn • Only use boats in good weather & sea conditions.
Terrain/working in the field	Many islands are heavily vegetated, may have large areas that are untracked and can contain hazards such as steep cliffs, sharp rocks, ravines, gullies etc	• Local knowledge essential – ensure your team is familiar with the territory • Work in groups of at least two people wherever possible • Wear suitable clothing and footwear • Carry radios or have some form of system for emergency contact • Always know where your team members are e.g. – Field personnel are expected to work in pairs and to notify the Operation Manager of their departure times, destination, purpose and expected time to return to base.

Heavy lifting	Often a lot of gear & equipment comes ashore and it needs to be moved quickly, especially where access is hard or restricted by tide or weather	• Do not expect/or pressure people to take loads heavier than they can handle • Identify/mark with a waterproof pen all loads that are especially heavy or need to be moved a certain way, e.g. hazardous materials • Wherever possible pack loads to easily movable weights • Make sure sharp objects are well padded
Use of hand tools e.g. machetes	Manual handling. Heavy objects. Flying objects. Extended use (loss of control). Sharp blades/objects. Impacts, entanglement. Public access	• Training of users • Maintain tools in optimum working condition. • A minimum working distance of 5m between staff. Wear appropriate leg protection when using grubber. Take regular breaks • Place covers on sharp edged tools. Carry tools with cutting edge turned down and out, or covered -not over shoulder. • Ensure physically fit and sufficient quantities of water are available and taken

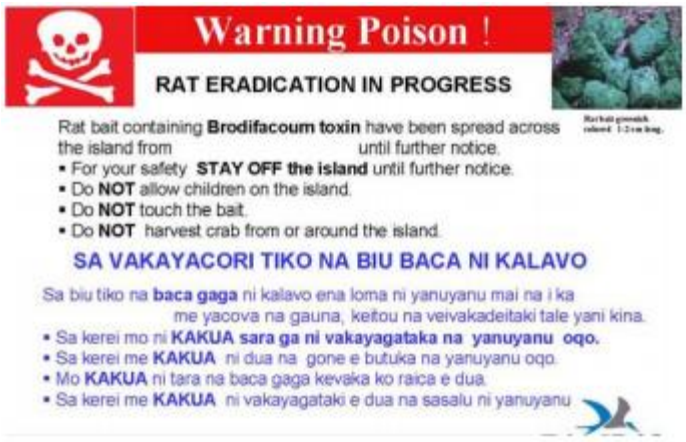
3.2 FIRST AID AND EMERGENCIES

- At least one member of your team should be trained in first aid. Ideally you should provide first aid training or refresher training for all your project team. First aid kits are essential – consider all of the likely risks you will encounter on the island and ensure contents of first aid kits will allow you to deal with most accidents that may occur.
- Identify any health issues within the team of people helping you, e.g. allergies, asthma that could become issues when you are on the island. Have procedures to deal with them, e.g. ensuring the individual brings and uses their medication, having back-up supplies in the first aid kit
- Have a procedure for dealing with serious (life threatening) accidents before you leave. This may be a radio or phone link with the mainland that will set in train an evacuation system or a link to a doctor to provide you with advice. Ensure everyone on the team knows what this procedure is.

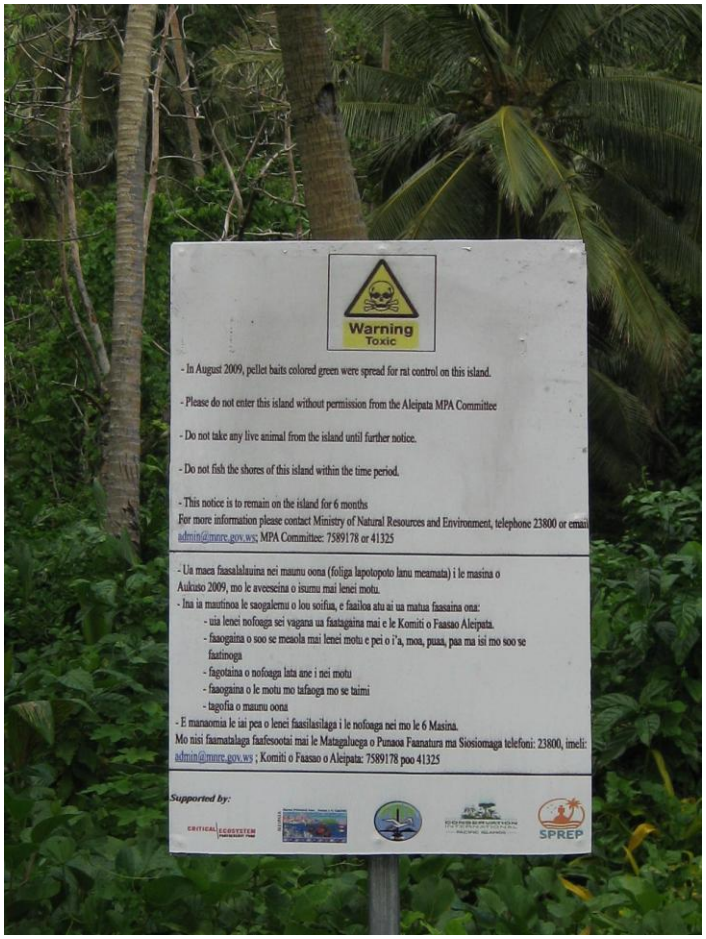
1.1 WARNING SIGNS

- When using toxic bait, warning signs must be erected to alert visitors to the island to the presence and danger of the poison.
- Warning signs must include:
    - Information on the poison used.
    - How to recognise it – including a photograph of the bait is recommended

- What visitors should do and NOT do.
- The instructions in the local language
- Contact details so that the public can contact the project team



Example warning sign



Example warning sign from Aleipata Islands.

- Place warning signs where most people will see them: wharfs or landing places are excellent locations.

4. THE OPERATIONAL BRIEFING

4.1 GENERAL

- The operational briefing is held just before starting the eradication operation and is led by the project manager.
- It is important to gather the whole team at the meeting to ensure everyone is clear about the job ahead and who is responsible for each task. This is the time to remind everyone of your health and safety rules and explain how to manage any emergency situations.
- Each operation will have different requirements depending on the location, topography, number of islands, invasive species being targeted and what techniques you are using. This checklist is intended as a guide, you may need to adapt it to your own situation.

- If your eradication operation extends over more than 1 day it's useful to have a debrief at the end of the each day. Often issues arise as a result of doing work on the ground that may require some changes to improve effectiveness, reduce safety concerns etc. Use this checklist as a guide when you undertake a debrief.

4.2 INTRODUCE THE TEAM

- Make sure everyone knows each other. Introduce each team member by name to the group yourself, or have them introduce themselves to the group.
- Name and introduce the project manager
- Name and introduce the team leaders

4.3 IDENTIFY HEALTH AND SAFETY ISSUES

- Identify key hazards (uneven or steep terrain, cliffs, toxic baits)
- If this is an aerial operation, ask the pilot to give a specific safety briefing
- Ask team leaders to briefly summarise health and safety issues related to any specialist tasks e.g. safe handling of toxic bait)
- Summarise how any hazards will be managed and who is responsible
- Be clear what safety gear needs to be worn (gloves, boots, dust mask)
- Explain how the team will communicate with each other (radios, cell phone, meeting at a chosen location and time)
- Consider any other safety precautions required for the job, such as the need to work in pairs or only place bait stations under houses.
- Explain where first aid kits are located
- Explain what should be done in the case of a serious medical emergency and identify who will take charge.

4.4 OPERATIONAL TASKS

- Review each task that is to be undertaken – what needs to be done, what gear is needed, who is responsible for which task
- Ensure team members are familiar with any recording systems (e.g. bait use and take, trap catch)
- Ensure any monitoring required is undertaken (e.g. random bait grids for aerial baiting)
- Are there any biosecurity tasks that need to be undertaken – if so when, how and by whom?

4.5 COMMUNITY LIAISON

- Have the local community and any other stakeholders been informed of the commencement of the operation?
- Are there any protocols that need to be followed? If so when and what and where?
- If there are people in the community involved in the operation ensure they are clear about what they need to do.

5. THE POST-OPERATION DEBRIEFING

- The Operational Review records the outcomes from the post-operation debriefing.
- Organise the review as soon as possible after the eradication operation, while knowledge, ideas and experiences are still fresh in people's minds.
- Include everyone who was involved, including:
    - Project manager
    - Key stakeholders/members of the local community
    - Project team
    - Subject Matter experts
    - Contractors (e.g. helicopter pilot and crew, skipper of transport boat, external advisers)
- The review is an important part of implementing agency capacity building. Those involved with the project can see you are genuinely interested in learning from the experience. Gaining feedback is an important part of this process. It allows you to review your project planning and implementation systems, identifying improvements for the future.
- Let everyone know in advance. Alert everyone to the date of the review meeting in advance, so they can consider points they may want to raise. It may be useful to provide a list of questions or subject areas you wish to cover.
- Involve all the project team. Ensure everyone who was involved has an opportunity to contribute opinions and ideas. People need to feel comfortable identifying problems or issues of concern as well as giving positive feedback.
- Get advice on the best way to undertake the review. Consider how best to get information out of people. People in a local village may be reluctant to talk openly in front of government officials or other people they do not know or who are not from their island. You may need to have more than one debrief meeting and tailor each meeting to get the best out of all the people who were involved.
- The debriefings should consider any problems the project encountered and discuss how they could be avoided in later projects. When considering anything that went wrong with the project, ensure that the focus is on what to better next time rather than people blaming others for the problems.

- To get the most from the debriefing meetings the project manager needs to plan them well and decide on an agenda beforehand.