

Sustainable Alpaca Farming

Setting Up Your Farm Environmental Management System

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1 INTRODUCTION

As with all agricultural pursuits, alpaca farming has the potential to impact on the environment in a multitude of ways. How we manage the alpaca industry will determine the extent of such impacts and the sustainability of alpaca farming on agricultural land. There are legal, ethical and financial reasons for ensuring our activities do not cause environmental harm.

This paper gives an outline of how individual farmers can set up a simple Environmental Plan for their alpaca farm.

2 ENVIRONMENTAL MANAGEMENT SYSTEMS

2.1 What is an EMS?

An 'environmental management system' (EMS) is a systematic approach to assist any enterprise to identify and manage its impacts on the environment, while providing opportunities for improved business performance. As an integrated business management tool, an EMS can effectively complement and build on other existing activities such as property management planning, best management practices, codes of practice and quality assurance schemes. EMS provides a management framework based on a simple 'plan, do, check, act' cycle that achieves continuous improvement. A manager uses the system to identify environmental impacts and legal responsibilities, then implements and reviews changes and improvements in a structured way

4.2 Why Adopt an EMS?

The reasons for adopting an EMS vary between enterprises, landholders and communities. These may include the need to:

1. improve business efficiencies;
2. become more sustainable;
3. reduce environmental and financial risks;
4. differentiate products in the marketplace;
5. maintain or improve access to markets and natural resources;
6. maintain the natural resource asset base of the farm enterprise;
7. meet catchment and/or regional strategies; and
8. improve management of natural resources and protect the environment.

4.3 Guiding principles

The following principles have been developed for EMS in Australian agriculture:

- voluntary and industry and/or community led;
- link competitiveness and natural resource management;
- able to be combined and integrated with existing business management activities wherever possible;
- simple, cost effective, user-friendly, able to be phased in at any level with clear benefits to the adopting enterprise;

- adaptable and allow for continuous improvement; and
- consistent with internationally recognised systems (such as ISO 14001) and capable of independent audit (NRMMC 2002).

4.4 How to Prepare an EMS

The tasks involved in preparing an EMS are:

1. Prepare an Environment Policy
2. Describe the Farm Environment - opportunities and constraints
3. Review Legal Requirements and other Guidelines
4. Identify Environmental Issues, Impacts and Risks
5. Prepare and Implement Environmental Management Plans to address issues
6. Monitor and measure performance
7. Report and review EMS

This is shown diagrammatically in Figure 2.

These tasks are outlined in more detail below.

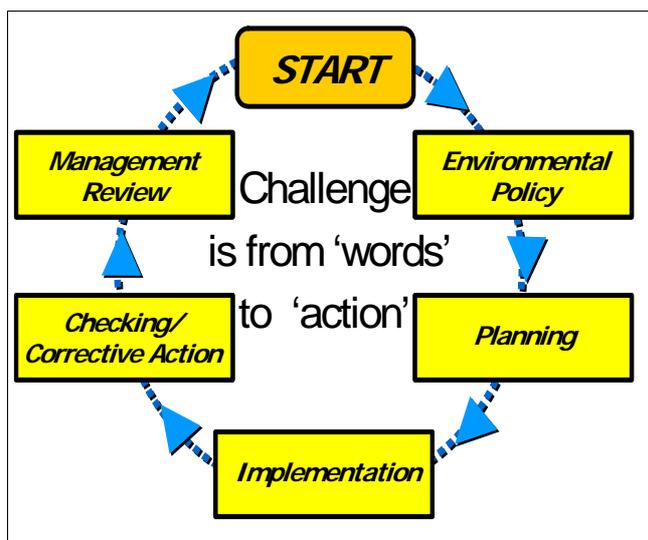


Figure 2. The EMS Approach

Step 1: Environment Policy

An Environment Policy outlines the environmental objectives and targets for the farm and should be appropriate to the nature, scale and environmental impacts of the activities undertaken on the farm. In addition, the policy must:

- acknowledge compliance with legislation as a minimum;
- show commitment to continual improvement of the EMS and prevention of pollution; and
- address environmental sustainability.

The development and implementation of

the Environment Policy requires the following commitments:

- agreement by the owners/managers of the farm to abide by the Environment Policy;
- allocation of time and dollars to implement it; and
- active review and reporting is essential.

Step 2: Describe Farm Environment

Briefly describe the farm environment, including natural resources, soil types, climate and farming history. Outline the major issues confronting your use of the property (eg. urban encroachment, salinity) and the goals or opportunities you see for the future (eg. wildlife conservation, organic farming, tourism).

Step 3: Review Legal Requirements

Identify the environmental legislation that applies to your farm/area. Be familiar with your responsibilities under State Environmental legislation. Also review how your property fits within Regional Catchment Management or Landcare Regions. Approach government and community groups for assistance and input into your farm EMS.

Step 4: Identify Environmental Issues, Impacts and Risks

The activities of the farm or enterprise should be investigated to identify the issues and impacts of each activity. Issues for alpaca farms may include:

Activity	Issue	Impact	Risk
Chemical use and storage <ul style="list-style-type: none"> • Veterinary Chemicals • Pesticide use • Storage facilities 	off-label use of chemicals unnecessary use of drenches spills withholding periods	animal health soil contamination drench resistance pesticide residues occupational health and safety	
Pasture Management	manure disposal animal rotation stocking rates pasture species access to significant vegetation	water contamination erosion invasion of weed species habitat destruction odour/dust soil compaction	
Stock management <ul style="list-style-type: none"> • Feed storage • Drinking water • Shelter • Riparian zones • Rotations 	contaminated feed access to water courses siting and type of shelter siting of fences and gates animal rotation/set stocking	animal health stream bank erosion soil compaction water contamination habitat destruction	

These should be listed and then a risk assessment undertaken to prioritise each issue according to risk (see Table 1 below).

Table 1 Risk Assessment

PRIORITY RATING	LEVEL OF RISK	ACTION REQUIRED
High	Extremely Significant Environmental Risk	Procedures and Programs MUST be put in place
Moderate	Significant Environmental Risk	Procedures and Programs SHOULD be put in place
Significant	Some Environmental Risk present	Procedures and Programs should be considered
Low	Very Minor Environmental Risk	Does not warrant Programs

Step 5: Prepare and Implement Environmental Management Plans

Prepare an Environmental Management Plan (EMP) initially for those issues identified as high priority. Give a commitment and timeframe for preparing EMPs for moderate rated

issues and for deciding on significant issues.

An EMP will include:

- Objective
- Policy
- Performance Targets
- Obligations
- Responsibilities
- Procedures
- Reporting
- Commencement
- Consultation
- References
- Review Date

For effective implementation, you should develop the capabilities and support mechanisms necessary to achieve your environmental policy, objectives and targets. These include:

- documenting what you do and how you do it;
- monitoring the effectiveness of your actions and whether you are meeting your targets;
- undertake training where available;
- ensuring communication with regional and local authorities, community groups and neighbours is maintained - ask them to read and comment on your EMS;
- setting a timetable for meeting targets and reviewing this regularly; and
- obtaining feedback from regional and local authorities, community groups, neighbours and other stakeholders on the effectiveness of your EMS.

Step 6: Monitor and Measure Performance

Once the system is in place, you should measure, monitor and evaluate your environmental performance. Documented procedures to ensure that measurements are accurate and recorded should be put in place. When performance targets are not met, corrective actions should be identified and implemented when required. All such actions should be recorded.

Step 7: Report and review EMS

An landholder should review and continually improve their EMS, with the objective of improving its overall environmental performance.

Landholders should review the Environment Policy, targets, objectives and the EMS effectiveness regularly and in response to external changes such as changes in legislation, land use or market requirements.

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