

## **Hiking trails - Plan before you start**

**Maritz Wahl and Leon Hugo**

**In today's difficult economic times, everyone is looking for an extra income. There is always the temptation for the farmer to use his land more intensively, which leads to over-exploitation of the environment with the inevitable long-term deterioration of his land. One of the most ideal ways to add value to a farm, however, is to open hiking trails, which requires very long low-input costs, has no negative impact on the environment and yields considerable income – it has been proved that a farmer can make a R150 000 profit a year with hiking on 250 ha (that is R600 per ha).**

From the hiker's point of view, hiking is not only the most effective way to see an area but is usually also the cheapest. It therefore is a recreational activity that is becoming more and more popular, especially with families. Many people try out this type of recreation and, depending on their first experience, do it regularly or never again. The success of the industry is thus largely dependent on how well such a hiking trail is planned.

Planning a hiking trail is a lot more complicated than most “planners” of hiking trails realise. An experienced hiker is not necessarily good at planning hiking trails, just as a regular visitor to the farm does not qualify as a good farmer. Various books have been written about the actual building of trails, but almost none that pay attention to planning them beforehand. This article is not intended to serve as a complete manual for the planning, construction and maintenance of hiking trails, but rather to point out a few features that ought to be taken into consideration by prospective planners. The authors have also attempted to make this article readable to those who do not have an extensive ecological background. More information can be obtained from the Department of Geography, University of Pretoria (see contact details at end of article).

Planning a hiking trail involves a lot more than making provision for people who walk along a track. One must realise that a hiker is not looking for a place to get fit in the veld – what is wanted is an overall outdoor and social experience. Apart from the actual trail, consideration should also be given to places for swimming, overnight facilities, firewood, water, rubbish removal, toilet facilities and the maintenance of the path and facilities. The experience is not, however, measured by the scope and quality of the facilities, as would be the case with a hotel. People go hiking to experience nature and the planning of the route from a psychological point of view is therefore of greater importance than the provision of expensive and luxurious facilities at the huts. Proper planning is important, because providing these facilities has an influence on the environment and could be limited by the terrain.

Hiking trails are often not planned to make provision for other recreational activities that may take place at a later stage in the same area. The serious nature lover will not be pleased, for example, if there are motor cycles, bicycles, horses or even too many other people on the hiking trail.

## **Planning approach**

It is thus clear that various factors must be taken into consideration before planning can begin. It is essential to have a comprehensive approach to planning. A hiking trail cannot just be hacked through the veld without prior research.

## **Factors that affect the success of the hiking trail**

### **Environmental consideration**

Any road, even a hiking trail, disturbs the environment. The sensitivity of each area will affect the course of the trail. A number of considerations, which ought to receive attention, follow below:

- ***Type of soil surface***

Knowledge of the various types of soil over which the trail will go and the properties of that soil is required. It is difficult to walk on sand and this affects the degree of difficulty of the trail. Sand is also ecologically sensitive because the plant cover is easily trampled. Clay is very slippery when it is wet. Cracks that develop when it dries could lead to ankle injuries. Organic soil types easily erode because they are easily trampled. Shale is also notorious for erosion.

- ***Vegetation***

Remember that a hiking trail changes the environment and therefore also the vegetation through which it runs. Marshes and spongy areas are typical sensitive environments that must be avoided or provided with a special walking surface. The presence of edible, poisonous and medicinal plants should also be considered since these could be important for environmental education. Landscapes that are overgrown with exotic plants are not good hiking environments.

- ***Gradient***

The gradient of both the route itself and the angle of the slope along which the route runs, are important, particularly with regard to erosion. Depending on the soil type, erosion can be expected if the gradient exceeds  $6^{\circ}$  to  $8^{\circ}$ . It must also be taken into consideration that if the slope of the hillside exceeds  $25^{\circ}$ , a walking surface will have to be cut out even if the path is parallel to the contour. If it exceeds  $35^{\circ}$ , steps are necessary and landslides could occur.

- ***Conduct of hikers***

The possibility of hikers causing problems must be taken into account. Artefacts from sensitive archaeological sites and stalactites from dolomite caves are very popular souvenirs. Hikers are also capable of stripping birds' nests, breaking off branches, littering, leaving gates open, damaging fences, polluting water and "helping" to harvest fruit and vegetables. All these potential problems can, however, be prevented through careful planning. On the other hand, research has proved that the vast majority of hikers are nature lovers and responsible people who hike specifically to enjoy an untouched natural environment.

### **Human consideration**

Hikers have specific needs that must be taken into consideration. Human considerations such as distance from residential areas, climate, degree of difficulty, view, the availability of places to swim, types of vegetation and other interesting features *en route* are all factors that can influence the success of a hiking trail.

## **Psychological principles**

- The hiking experience does not begin when the hiker starts hiking. First impressions are lasting: Could he get hold of you easily on the telephone? Did he have to turn back or share facilities because of double bookings? Was there safe parking for his car?
- A hiker is usually satisfied with a roof over his head, a bed to sleep on, firewood, clean water and of course a primitive pit privy. When hot water is promised, however, it must be there when the hiker arrives at the overnight hut. It is always better to provide minimum standards and keep them in good condition. Never create false expectations!
- Many owners of natural heritage areas have their own brochures to hand out to visitors. A lot of information can be conveyed in this way and the visitor feels more at ease since he will be able to read what he needs to know, for example what to bring, the climate, etc.
- There is usually also a map that indicates the trail route. This all makes the hiker feel much more at ease and also creates a professional impression. Such a map does not, however, have to be an expensive colour map with photographs; a black-and-white map with contour lines drawn according to scale is sufficient.
- Hikers lose their way easily if the route is not clearly marked. Because you are the owner and know the area and can therefore walk the route without directions, it is sometimes difficult to see things from the outsider's point of view. The ideal is for a hiker to be able to see from one pointer to the next at all times, unless there is no possibility that he could get lost. When the hiking trail turns off from another route it must especially be clearly indicated. Remember that the area is strange to most hikers. Remember too that during good seasons grass can grow over stones with markers and that baboons love overturning stones! Instead of dots or arrows, rather use the standard white footprint as a marker.
- If all the interesting places on the trail appear at the beginning of the route, the hiker will later be bored by the trail. The same trail, starting at the other end, might be experienced as more interesting. Planning the route so that a beautiful view follows a difficult climb or so that a waterhole is reached in the late afternoon, for example, are details that make the difference between an enjoyable hike and a boring one.
- Ugly places such as dongas or power lines can be "hidden" by leading the hiker around these behind bushes or by having him approach them by way of a steep incline, where he will tend to look down while he struggles up the slope. On the other hand, people tend to look far ahead when they are walking on an even path or slightly downhill – this is therefore the ideal place to lead them in the direction of a beautiful landscape.

## **Planning method**

### **Comprehensive method of approach**

This method attempts to avoid the problems that are experienced with the other two methods by combining the valuable features of the other methods, while eliminating features that cause problems. This method is divided into eight phases and is aimed at meeting the hiker's needs and at the same time protecting the environment.

### **Phase 1: Gather general information**

Important information includes the availability of existing huts, abandoned farmhouses, access roads, existing roads and hiking trails. The entrance to and exit from the area as well as places of cultural or historical value such as battlefields, forts and blockhouses, must also be determined during this phase. Additional interesting features such as these can contribute to the success of the hiking trail. Places to swim and spots with a nice view can be identified during this phase.

### **Phase 2: Identity limitations**

The ideal hiking trail is situated so that it causes the least possible damage to the environment and also satisfies the hiker. The terrain must thus be evaluated. The main purpose of terrain evaluation is to determine whether the environment is suitable for hiking. The choice must be made firstly with these requirements in mind and secondly on the grounds of the availability of information. It has been found that vegetation and geomorphology (structure of the landscape) are two of the most important limitations as they best reflect the recent history of the environment. Vegetation is an especially good indication of the most recent environmental interactions such as climate, soil, gradient, animal life, etc.

### **Phase 3: Determine ecological areas**

By taking all the limitations into consideration, the planner is able to identify ecological areas. These areas are to a greater or lesser extent suitable for hiking. The value of each area can be determined in terms of how suitable it is. The planner therefore has information about a number of non-adjoining areas that are suitable for hiking, with a few less suitable areas in between.

### **Phase 4: Identify sensitive areas**

Knowledge of the limitations, to which general information can be added, enables the planner to identify areas that are sensitive to hiking. These sensitive areas are, for example, types, habitats of endangered species and sensitive archaeological sites. Areas used for farming should also be identified since they could, from a farming perspective, be sensitive. Hikers will be less interested in this type of area.

### **Phase 5: Determine the route of the hiking trail**

For the hiking trail to be successful, it is important to consider both human needs and the environment. Existing structures (see Phase 1) such as paths and huts that can be used on the trail and archaeological sites, etc. must be indicated on a map of the area. The environment must not be disturbed too much. The limits of ecological areas must therefore be kept in mind when planning the trail. Each ecological area, as determined in Phase 3, has a certain suitability for a hiking trail. These areas, together with the limitations and general information, enable the planner to map alternative possibilities for the trail.

Ecologically sensitive areas must receive special attention, either by avoiding them or by taking special precautions in designing the trail. Sensitive habitats of endangered species should be avoided, but when the trail necessarily passes through such an area,

special construction methods must be used. These methods are expensive, labour-intensive and time-consuming and require expert advice. They must thus be avoided as far as possible. If they can be used correctly, however, they could contribute substantially to the success of the trail. In this regard it is important to remember that the choice of an overnight hut is critically important. It must be accessible for construction work and it must be possible to supply water and wood. Moreover, the hut must be simple, built from locally available materials and fit in with the cultural-historical character of the environment if possible. As little as possible must be spent on finishing touches.

Special attention must be given to the microclimate and the view from the hut. Remember that noise and lights from the roads are more disturbing at night than during the day (when the planning is usually done!).

### **Phase 6: Marking and building the trail**

Marking and then building the route in the veld must also be done with sensitivity: for example, in warm climates rather keep on the south side of trees for maximum shade, use natural rock ledges to achieve height so that it is not necessary to build steps, approach pans and dams from such a direction that game and birds will not be disturbed and so that it will be possible to take good photographs, etc.

### **Phase 7: Marketing**

Marketing and advertising of the trail require expert advice. So does the booking system. Luckily, a good trail “sells” itself. The best advertisement is through word of mouth from satisfied clients.

### **Phase 8: Monitoring and auditing**

It is essential to check the condition of the trail and the facilities on a regular basis and to constantly ask whether the trail still serves its purpose. Do not hesitate to ask the opinion of hikers. They appreciate it and it will ensure quality service.

### **Closing comment**

As hiking goes so well with other ecotourism activities such as mountain biking, horse-riding and hunting, it might be rewarding to have your farm evaluated with a view to a tourism development plan. The local hiking trail business has grown substantially due to a shift from being a government initiative to one driven by private initiative – especially on farms. It is not often realised that hiking does not clash with game farming but, if carefully

**For more information on planning a hiking trail on your farm or game ranch, contact Prof Leon Hugo Cell: 082 578-3023, E-mail: [leonhugo@vodamail.co.za](mailto:leonhugo@vodamail.co.za) Web: [www.trailinfo.co.za](http://www.trailinfo.co.za)**

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