

# Landscape design methodology

## Giving a breath of life to mother earth

The 'Landscape Planning System' was started in 1965, as a solution to minimize the damage to the environment and forests due to various factors, including development and population growth. Gradually developed, it is a successful technique used in over a hundred countries today. Among them are developed countries such as the USA, Netherland, China, Japan, and Korea, as well as developing countries. This methodology is successfully being utilized in several countries in Asia and Africa also. At a conference on forests held in Colombo in 2017, all thirty-six participating countries agreed to adopt this landscape planning strategy in the management of their forests.

In general, the objectives of environmental protection and economic development are sometimes competitive and conflicting. But this particular landscape design process is now widely accepted as a strategic and scientific approach that serves conflicting purposes.

A landscape comprises of the whole area of land

scientific methodology. This process involves identifying areas that are suitable for the different needs of the area. For example, areas to be conserved, restored, ecologically sensitive areas and areas that can be used for other purposes are identified. It also ascertains opportunities and barriers to the conservation of existing reserve areas and makes necessary plans to manage them. This makes it easier to implement conservation objectives. Areas that need to be rehabilitated for the survival of the environment will also be identified and appropriate restoration programmes will be implemented accordingly. These include development of forests, soil erosion control, flood control and watershed conservation.

Conservation measures centered on one area sometimes fail because of certain activities being conducted in the vicinity which may be harmful to the environment. However, such external actions can be controlled in a broad-based approach based on an overall landscape area.

planning process which is already underway. In preparing this landscape plan, committees are appointed, consisting of officials nominated by the major stakeholders in the various sectors. Preliminary plans prepared with the contributions of these committees at the national, district/zonal and regional levels are shared with all parties and forwarded for government approval. Once approved, they can be carried out on a long-term basis.

Two particular areas have been chosen for the pilot project, one of which is in the dry zone while the other is in the wet zone. These areas are the Hurulu-Kawudulla-Kantale landscape and the Sinharaja landscape. A number of factors were considered when choosing these areas.

The area covered by the pilot project in the dry zone – the Hurulu-Kawudulla-Kantale landscape is about 528,826.85 hectares. Of this around 272,557.03 hectares are protected areas while the other area of 256,269.82 hectares consists of villages, agricultural lands, and private lands.

Several Dry Zone forests are covered in this landscape area. This includes forest reservations such as Hurulu, Konwewa, Rathmale, Moragaswewa, Kantale, Kalegama, Padaviya, Andiyaga-hahinna, Kumbukewahinna, Chundankadu, Thanaparichchan, Pamburugashinna, Borawewa, Ralapanawa and the Anavilundawa proposed forest reservation.

Apart from these, National Forest Reserves such as Kawudulla, SomawathandMinneriya, the Trincomalee Navy Headquarters Nature Preserve and the Great Sober Landscape Nature Reserve and several mangrove areas also belong to this landscape. Six major rivers flow through this area while nine watersheds and five large tanks are also located in this landscape. This area contains a large number of houses, agricultural lands and several areas of archaeological importance. The relevant landscape plan for this landscape comprising 14 Divisional Secretarial Divisions in Anuradhapura, Polonnaruwa and Trincomalee Districts has now been completed.

The other landscape area for which landscape management plans are being made is the Sinharaja Forest Reserve complex which consists of 242,695.17 hectares. Of this, 150,473.07 hectares are forests including protected areas while the balance 92,222.10 hectares are being used for other purposes. The Sinharaja World Heritage Site as well as forest reserves such as Morapitiya-Rana Kanda, Dambuluwana, Muwagankanda, Magurugoda, Iriyagahahena, Warthalgoda, Kithuluthara, NahitiMookalana, Handawal Kanda, Mudali Kanda, Yakkanda, Nawkanda, Kabaragala, Walankanda, Kalugala, Sooriyakanda, Kalubowitiyana and Diyadawa come under this landscape.

This landscape plan comprises sixteen Divisional Secretarial Divisions of Ratnapura, Galle, Matara and Kaluthara Districts and is currently under preparation. It is hoped that this landscape-based management plan will introduce a suitable system for the conservation of the natural resources of the area, as well as for sustainable use.

These tasks are being carried out tirelessly and at great expense to ensure the upliftment of Sri Lanka's forests and the next generation's right to breathe freely. What is of paramount importance is that every citizen of this country considers it his duty and responsibility to support these tasks and ensure that they are not interrupted or disrupted by the abuse of power.

- Inoka Perera Bandara

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where living things and their interactions take place. It includes living things and inanimate factors as well as natural resources. Its boundaries can be demarcated as a catchment area, a mountainous area, a river boundary or an area marked by administrative boundaries such as Provinces, Districts etc. A combination of all these criteria can also be used to demarcate a landscape area. Since the basis of this planning system is the landscape, the area demarcated may exceed existing administrative boundaries.

Two basic features of this landscape design process can be identified. The first is that it covers the entire area of the selected landscape. The plan includes all types of land use areas within the landscape, such as forests, forest lanes, agricultural lands, plantations, river basins, tank reserves, villages, urban areas as well as coastal areas. Accordingly, a plan is prepared with both conservation and development objectives covering the entire demarcated landscape. Secondly, it is an integrated plan prepared with the participation of all stakeholders in the conservation and development activities in the area.

It is clear that a more qualitative and successful outcome can be achieved by implementing such a plan. Also, through this joint implementation process, the relevant programme can be easily and successfully implemented without any delay since it is based on a

In this planning process, villages with human activities, home gardens, cities, agricultural lands, as well as other government lands are identified and methods are introduced to use these areas sustainably. It also identifies which land areas can be used for different land uses and what resources are needed. Areas that can be used for urban development, settlement as well as agriculture are classified separately, so that they can be utilized methodically.

On the other hand, it is important to identify groups of people with low-income who depend on nature reserves for their livelihood and develop alternative employment and sources of income for them. Introducing a system that protects the environment and natural resources and uses them in a sustainable manner such as eco-tourism, eco-friendly product development etc., is vital.

In a nutshell, this landscape-based planning methodology focuses on natural resources and human activities and manages multiple land use patterns under a combined plan. To this end, pilot programmes are currently being implemented in various parts of Sri Lanka.

Accordingly, one of the components of the Ecosystem Conservation and Management Project currently being implemented in Sri Lanka with the assistance of the World Bank, is the pilot landscape management



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