



Review of Sustainable Land Management Related Policies-

Special Reference to Management of Lands in Village Tank Cascade Systems

*Ministry of Environment &
Healthy Landscapes Project*

2024



**Reviewing of Sustainable Land Management Related Policies
with special reference to management of lands in the
Village Tank Cascades**



Healthy Landscape Project

Ministry of Environment

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1. INTRODUCTION

Land resource in Sri Lanka is limited mainly due to increasing population pressure on lands. Agricultural land fragmentation into economically nonviable units is a common phenomenon in the country resulting land degradation and increased land use conflicts between agriculture and other uses. New development activities also put pressure on land and other resources including water, forest and wildlife which also mainly rely on the land. Therefore, sustainable Land Management (SLM) is crucial to maintain land productivity at an optimum level and conserve the resource base for future generations. Under this background, the lands belonging to small tank cascade systems in the dry and intermediate zones of country should also be managed sustainably. In the case of cascade systems, SLM is comparatively more significant since any failures in the land management affect the entire system since the lands are interconnected within the system.

Further, SLM is an utmost importance aspect of environmental conservation and resource management. It involves the responsible use of land resources in a way that ensures their long-term viability and productivity. SLM encompasses established approaches such as soil and water conservation, natural resource management and integrated landscape management (ILM). It involves a holistic approach to achieving productive and healthy ecosystems by integrating social, economic, physical and biological needs and values, and it contributes to sustainable and rural development.

Since the SLM is multi-disciplinary in nature, it needs broader policy coverage for successful implementation. There is no any policy in Sri Lanka directly aiming the SLM. However, there are a number of SLM related policies available and the degree of contribution of them towards the SLM varies depending on their visions, missions, policy objectives and policy statements. Therefore, reviewing SLM related policies is crucial to analyze any policy gaps and identify policy implementation barriers to make tangible recommendations for the implementation of SLM strategies. Identifying policy gaps in terms of SLM allows us to develop more comprehensive and integrated approaches to address the various issues in land management.

Further, review of SLM related policies was proposed in the National Environmental Action Plan (NEAP, 2022 - 2030) and to fulfill the task given under the action plan of the Healthy Landscape Project implemented by the Ministry of Environment. Thus, it is important to review the existing SLM related policies to make recommendations to bridge any policy gaps, overcome barriers for implementation and formulate a framework for actions. Therefore, a process was carried out to review the available SLM related policies in Sri Lanka. The output of the review process is presented in this report.

2. BACKGROUND

In general, SLM practices are not much adapted in Sri Lanka by the farming community due to various direct and indirect reasons including low income, lack of awareness, land ownership and tenure issues, marketing issues, both unavailability and cost of labor, high cost of other inputs etc. However, there are several SLM related policies and legislations available to promote SLM practices in the country. But the ground level implementation of these policies and legislations is not satisfactory as expected, mainly due to divided responsibilities, lack of funds and poor coordination among various institutions. Therefore, it is crucial to review the available policies and identify the barriers for successful implementation of SLM practices.

The need for review of SLM related policies was clearly identified in the National Environmental Action Plan (NEAP 2022-2030). In the Action Plan, there are two main actions for policy review were given. They are (1) “Review and identify gaps in sustainable land resources management related policies” and (2) Revise policies or introduce new policies/ regulations to address gaps in SLM related policies.

Based on the NEAP, policy review process was initiated few years back to provide policy recommendations for Sustainable Land Management (SLM) in Sri Lanka. A team was appointed and formulated recommendations (draft) on policy and regulatory related changes and amendments in terms of SLM. These recommendations were validated by stakeholders at the national level workshop held in November 2019. In this review process, institutional coordination, implementation barriers, land use planning, soil fertility management, soil conservation, property rights etc. were critically discussed. Based on this review, policy recommendations were given which mainly covered agriculture, land use, water, soil, land ownership issues, fertilizer use etc. However, according to the definitions for SLM, it covers some more areas such as natural disasters, environmental services, biodiversity, demography and other social factors, economy and related areas, subsidies, credits for land improvement, extension services, climate change impacts etc. Therefore, it is important to extend the previous review process further to cover the areas which had not been covered adequately.

The previous work was a significant starting point for the review and provided very useful output. Reviewing of all SLM related policies covering the entire scope is crucial to identify the policy gaps and barriers for implementation. Therefore, SLM related policy review process has been started again based on the previous work, considering all related subject areas of SLM.

3. SCOPE OF THE WORK

There are more than thirty SLM related policies are available in Sri Lanka. Among them a few policies are at the draft stage, and they have not been approved yet. They are not considered in this process. Since the approved policies have different aims and objectives other than SLM the degree of relevance to SLM varies. Therefore, in this process all the relevant policies are generally reviewed and the most relevant ten policies are reviewed in a detailed manner. The review was

mainly focused on policy gaps identification, identification of implementation barriers and formulating the framework for action.

4. NEED FOR A POLICY REVIEW

There are several main land use and land cover categories that can be identified in the country. Based on the existing data there are about 32% of agricultural lands including paddy cultivation available. Rest of the area covered/used by forest, water bodies, built up lands, home gardens etc. According to the Global Assessment, about 46% of land area in the country has been subjected to soil erosion at different levels. There are about 30% of cultivated lands are subjected to land degradation. Therefore, SLM is very important where agricultural lands are concerned. However, other land areas also need SLM to conserve the land resource.

Since SLM is crucial for all type of land areas, it is necessary to promote SLM strategies and actions among the land users. However, implementation of such activities is apparently weakened due to various reasons including policy issues. Therefore, appropriate policies and legislation are needed for the successful implementation of SLM. Although there is no direct policy to address the SLM, there are several SLM related policies available in the country. But SLM is not much adapted by the land users, maybe due to the poor implementation of relevant policies. This was clearly identified several years ago by the NEAP and recommended to review the SLM related policies. Therefore, a national need is identified to review all available SLM related policies and make recommendations to overcome the barriers in policy implementation.

5. OBJECTIVES

The main objectives of the process are.

- (a) To identify policy gaps and issues of SLM related policies in implementing SLM practices in Sri Lanka.
- (b) To identify main barriers for implementation of SLM related policies.
- (c) Formulate recommendations to bridge the identified policy gaps and address the implementation barriers in SLM.
- (d) To formulate the Framework for Action to promote SLM in the country.

6. METHODOLOGY

The methodology adopted in this process is consisted with several sub steps and is presented below.

Step -01 Identification of SLM Related Policies and Stakeholder Mapping.

Initially, all SLM related policies were listed out and relevant stakeholders have been identified to obtain necessary information. In this regard all related policies which was approved have been selected. (Annex-01)

Step -02 Initial Reviewing of Policies.

This was done as a deskwork to determine the degree of relevancy of selected policies and to identify their significance in terms of Policy Goal, Objectives and Policy Statements with SLM.

Step -03 Filtering most relevant policies for in-depth analysis.

Based on the results generated under the initial review list of main policies selected for in-depth assessment. (Annex-02)

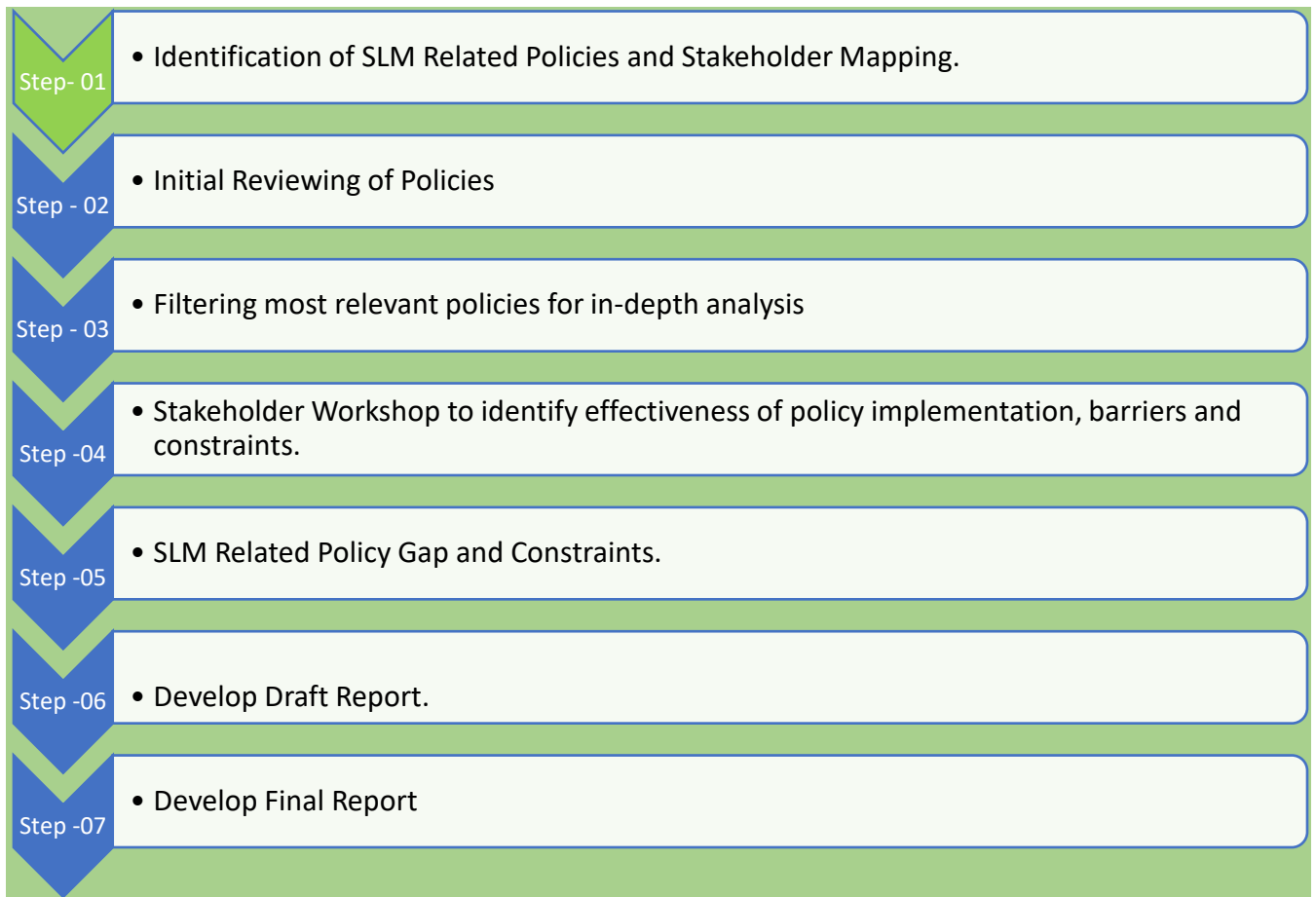
Step -04 Stakeholder Workshop to identify effectiveness of policy implementation, barriers and constraints.

Step -05 SLM Related Policy Gap and Constraints.

Step -06 Develop Draft Report.

Step -06 Validation.

Step -07 Compilation of Final Report



Schematic Representation of Methodology Adopted for the Policy Review

As an initial step, SLM was clearly defined based on the UN definition given for SLM. The policies that mainly covered the following subject areas were considered as SLM related and according to that a list of policies was made. (The definition adopted given in Box -01 below).

- Policies for the improvement of Land and land use
- Policies for minimizing Soil erosion and land degradation.
- Policies to prevent Landslides and other natural disasters which affect the lands.
- Policies to enhance Soil fertility.
- Policies to improve Farming practices and enhance Agricultural production.
- Policies to protect Environment and environmental services (land related)
- Policies to conserve/protect Biodiversity and related areas (including flora, fauna and other biotic factors)
- Policies to protect Water and related areas.
- Policies related to land management bound population and other social factors.
- Policies to land management related Economy and related areas.
- Policies for farming related Subsidies, credits, and other assistance for land management
- Policies regarding Extension services to improve land management.
- Policies regarding Agricultural inputs to improve land management.
- Policies related to Climate change and minimizing its impact on land.

Box1. UN Definition for SLM

“The use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions”.

These policies were compiled by using the available soft copies. Most of them are approved in different time and however, there are few policies at the draft stage too. These policies were thoroughly studied by using a analytical matrixes. The degree of relevance of considered policies to SLM was assessed by giving numerical weights to select relevant policies out of the entire policy list. Statements of all selected policies were tabulated to identify the status of their implementation and policy gaps as the views of the stakeholders belong to different institutions (See Annex I for the list of institutions). About 50 participants contributed by giving their views and recommendations at the workshop. At the technical session, all participants were grouped into four groups under themes of (1) environment, (2) land, (3) agriculture and (4) water. They were provided tabulated statements (both hard and soft copies) under above themes to identify the present status of

the implementation as “fully implemented”, “partly implemented”, and “not implemented” with the identified barriers/limitations. Further, the directions were given to the groups to suggest possible recommendations to overcome these implementation barriers. The groups were also instructed to identify any policy gaps as their knowledge. However, policy gaps analysis is a lengthy process that needs more deskwork considering the present status of policies and the anticipated targets. Hence, policy gap analysis will be continued further, and the output will be presented in the final report of the policy review process.

The output of the groups was presented at the end of the workshop to facilitate intervening and sharing the views of other groups. After presenting the output of each group, a fruitful discussion was conducted to enrich the findings further. All findings were documented and compiled.

7. LIST OF SLM RELATED POLICIES REVIEWD.

The following policies were initially considered for the reviewing process. The visions, missions, goals & objectives, and policy statements were reviewed to assess the degree of relevance to SLM.

(A) Environment related policies

1. National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing Climate Change.
2. National Policy on Environmentally Sensitive Areas in Sri Lanka 2022
3. National Policy on Mineral Resources (Draft)
4. National Environmental Policy 2022
5. National Forestry Policy 1995
6. National Policy on Sand as a resource for the construction industry
7. Policy on sitting of high polluting industries 2009.
8. National Policy on Waste Management 2020
9. National Wetland Policy and Strategy 2006
10. National Policy on conservation and management of wild elephants in Sri Lanka
11. National Policy on conservation and sustainable utilization of mangrove ecosystems in Sri Lanka 2020
12. National Policy and strategies on Traditional knowledge and practices related to biodiversity 2020.
13. National Policy on Sustainable Consumption & Production for Sri Lanka 2019
14. National Policy on Biosafety 2011
15. National Energy Policy and Strategies of Sri Lanka 2019
16. National Policy on Disaster Management 2010
17. National policy and strategy on cleaner production for Health sector 2007
18. The National Policy on Invasive Alien Species (IAS) in Sri Lanka, Strategies and Action Plan 2016

19. National biotechnology Policy 2009
20. The National Climate Change Policy of Sri Lanka
21. National wildlife policy
22. National Science, Technology and Innovation Policy 2018

(B) Agriculture related policies

1. National Agricultural policy - 2021
2. National policy and strategy on cleaner production for agriculture sector
3. Overarching Agricultural Policy 2019
4. National Plantation Industry Policy framework 2006

(C) Land related policies

1. National Land use policy for Sri Lanka 2007
2. National Physical Planning Policy and the Plan 2017
3. National Housing Policy 2017
4. Integrated landscape management policy (Draft)

(D) Water related policies

1. National Drinking water policy
2. National water resource policy and institutional arrangements 2000
3. National Policy for Rural Water Supply & Sanitation Sector 2001
4. National Rainwater Harvesting Policy 2005
5. National Watershed Management Policy 2004
6. The national fisheries and aquaculture policy 2018
7. National policy framework for fisheries sector development
8. Ten-year development policy framework of the fisheries and aquatic resources sector 2007-2016
9. National Policy on Protection and Conservation of Water Sources, their Catchments and Reservations in Sri Lanka 2014

Table 1 gives several examples for the assessment to determine the degree of relevance to SLM, based on the definition and the subject areas given in the above methodology.

8. INITIAL REVIEW OF THE SLM RELATED POLICIES

All relevant policies were considered for the reviewing process and presented relevant policy statements to the stakeholders to assess the present status of implementation and identify the limitations or barriers prevailing at present. The findings of the workshop are given in section 5 of this report.

Table 1. Initial assessment of policies to determine the degree of relevance to SLM.

	Policy Name	Degree of relevance 0-5 (0 =No relevant, 5= highly relevant)
1	The National Climate Change Policy of Sri Lanka	4
2	National Policy on conservation and sustainable utilization of Mangrove ecosystems in Sri Lanka - 2020	4
3	National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing	1
4	National Policy On Mineral Resources	2
5	Sri Lanka National Agricultural Policy 2012	3
6	National Policy on conservation and management of wild elephants in Sri Lanka	1
7	National Environment Policy 2022	4
8	National Policy & strategy on cleaner production for health sector 2007	1
9	National Policy & strategy on cleaner production for fisheries sector 2008	0
10	National Policy & strategy on cleaner production for Agricultural sector	3
11	National Forestry Policy 1995	3
12	Policy on siting of high polluting industries 2009	1
13	National Policy on Waste Management 2020	1
14	National Wetland Policy and Strategy 2006	4
15	National Wildlife Policy	4
16	National Education Policy Framework	0
17	National Physical Planning Policy and Plan (2010 - 2030)	3
18	Revised National Physical Planning Policy and Plan (Draft) (2050)	2
19	National Policy on Disaster Management	1
20	National Land Use Policy 2007	5

8.1 Status of implementation of relevant policy statements of different policies.

Based on the workshop output, status of the implementation of relevant policy statements of considered policies are shown in table 2. It provides a picture about the implementation of SLM related policy statements. Most of the statements are partly implemented and comparatively few statements are fully implemented. So far, no action has been taken to implement some of the policy statements. However, no response was given to some of the statements mainly due to unawareness of the situation.

The policies and strategies were intended to deal with issues relating to Sustainable Land Management, some directly and others indirectly. However, one common weakness in

many of these initiatives was the delay in implementing them. By the time they were implemented the envisaged results were only partly effective. Furthermore, some of these policies were only partly effective. In addition, some of these policies were not implemented at all due to various reasons, such as the nonavailability of legal instruments, resources etc. Most of these policies lacked some essential elements specifically required for Sustainable Land Management. Some economic policies have also had negative effects. For example, the incentives for conservation of private lands are insufficient but there are prevalent subsidy programs. For instance, fertilizer subsidies that promote land exploitation and pollution in some time back can be given.

However, it was clear from the policy analysis that most of the policies were not adequately implemented. Accordingly, the table 2 below reflects the present status of effectiveness of the policies reviewed.

Table 2. Status of the implementation of SLM related policy statements.

Policy name	Implementation status (based on the number of relevant policy statements considered)			Implementation statuses were not given for the statements*
	Relevant statements are being successfully implemented	Relevant statements are Partly implemented	No action taken for implementation of relevant statements.	
National Agricultural Policy - 2021		100%		
National policy and strategy on cleaner production for agriculture sector		100%		
Overarching Agricultural Policy 2019		63%	37%	
National Plantation Industry Policy framework 2006		56%		46%
The National Policy on Invasive Alien Species (IAS) in Sri Lanka, Strategies and Action Plan 2016		33%		67%
National Policy on Biosafety 2011			50%	50%
National Energy Policy and Strategies of Sri Lanka 2019	12%	88%		
National biotechnology Policy 2009		100%		
National Science, Technology and Innovation Policy 2018		100%		
National wildlife policy (2000)	11%			89%
National Policy & strategy on cleaner production for health sector 2007		100%		
The National Climate Change Policy of Sri Lanka		100%		
National Policy on Disaster Management		50%		50%
National Policy on Environmentally Sensitive Areas in Sri Lanka 2022		100%		
National Forestry Policy 1995	8%			92%
Integrated Landscape Management Policy (Draft)				100%
National Land Use Policy for Sri Lanka 2007		96%	4%	
National Physical Planning Policy and the Plan		100%		
National Housing Policy 2017		100%		
National Policy on conservation and sustainable utilization of mangrove ecosystems in Sri Lanka 2020		10%		90%
National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing			100%	
National Environmental Policy for Sri Lanka.	6%	44%	12%	38%
Policy on siting of high polluting industries 2009		100%		
National Policy on Access to Biological Material and Fair and Equitable Benefit Sharing			100%	

National water resource policy and institutional arrangements 2000		100%		
National Policy for Rural Water Supply & Sanitation Sector 2001	100%			
National Policy on Protection and Conservation of Water Sources, their Catchments and Reservations in Sri Lanka 2014		50%		50%
National Policy on conservation and management of wild elephants in Sri Lanka		100%		

9. POLICY GAPS, CONSTRAINTS AND ISSUES

There are nearly 25 national policies relevant to sustainable land management taken for review. According to the weightage given for the relevancy of policy statements of the national policies to sustainable land management, the following policies were selected for further review.

1. National Land Use Policy 2007
2. National Environment Policy 2022
3. National Policy on conservation and sustainable utilization of Mangrove ecosystems in Sri Lanka – 2020
4. National Wetland Policy and Strategy 2006
5. Wildlife Policy
6. The National Climate Change Policy of Sri Lanka
7. National Policy & strategy on cleaner production for the Agricultural sector
8. National Physical Planning Policy and Plan (2010 - 2030)

1. National Land Use Policy 2007

The National Land Use Policy of Sri Lanka (NLUP) is a comprehensive framework that aims to ensure the sustainable management of land resources in the country. Through a comprehensive review of the policy, it is evident that several positive steps have been taken towards achieving sustainable land management in the country.

The NLUP goal is the rational utilization of lands as a resource, in the national interest, in order to ensure food security, high quality of life, equity and ecological sustainability. One important aspect of this policy goal is sustainable land management. The policy emphasizes the importance of integrating land use planning with environmental conservation efforts to protect and preserve the country's natural resources, including forests, wetlands, rivers, and biodiversity. It also calls for promoting sustainable agricultural practices that enhance productivity, conserve soil fertility, and minimize the use of chemical inputs that can harm the environment. Furthermore, the policy aims

to address issues of land degradation, deforestation, soil erosion, and loss of biodiversity through the implementation of appropriate land management practices. To achieve the goals of the National Land Use Policy, it is essential to strengthen institutional capacities, develop effective regulatory mechanisms, enhance public awareness and participation, and provide support for research and training in sustainable land management practices.

Sustainable land management is a crucial component of the NLUP as it is essential for the long-term well-being of both the environment and the people. Sustainable land management involves the responsible use of land resources to meet current needs without compromising the ability of future generations to meet their own needs.

One of the key reasons why sustainable land management is important is because land resources are finite. As the population continues to grow, there is increasing pressure on land for agricultural, residential, and industrial purposes. Without sustainable land management practices in place, there is a risk of overexploitation of land resources, leading to degradation of the soil, loss of biodiversity, and reduced productivity.

By promoting sustainable land management practices, the NLUP aims to protect and enhance the natural resources of the country. This includes measures such as soil conservation, forest protection, and promoting sustainable agricultural practices. These measures not only help to preserve the environment but also contribute to the long-term food security and livelihoods of the people.

Furthermore, sustainable land management is also essential for promoting equity and social justice. By ensuring that land resources are used in a fair and responsible manner, the policy helps to prevent land grabbing and promote the rights of marginalized communities. This is particularly important in a country like Sri Lanka where land ownership and access to resources can be a source of conflict.

The key aspects include preparing land use plans at various administrative levels, involving local communities in decision-making processes, strengthening institutions providing land use services, and introducing a new legal framework for land use planning. The policy also emphasizes the utilization of underutilized or unutilized land for development, optimizing resource use and promoting sustainable practices. It also protects areas of cultural, archaeological, historical, and aesthetic value, ensuring their preservation for future generations.

The NLUP aims to ensure food security and income generation through sustainable agricultural practices. It encourages diversification of land use only when land productivity can be increased, ensuring the resilience of the food system. The policy also emphasizes the importance of conservation measures to protect land and ensure long-term sustainability. It also focuses on developing marginal and uncultivated lands, identifying and developing underutilized lands for food security and income generation. The policy also identifies agricultural lands suitable for

paddy, coconut, rubber, tea, and minor export crops, but discourages conversion to other uses to protect productivity and sustainability.

The NLUP focused on the conservation of natural forests, biodiversity, landslide-prone areas, and water resources. It emphasizes the importance of regulating multiple uses of forests, balancing conservation and resource utilization. The policy also emphasizes the need for biodiversity conservation principles in all forestlands and protected areas. It also identifies landslide-prone areas and prioritizes the demarcation and protection of natural and man-made watercourses and sources. This policy demonstrates Sri Lanka's commitment to responsible environmental stewardship, ensuring the country's natural heritage is protected for future generations and promotes sustainable development.

By incorporating wetland conservation into land use planning, the policy seeks to ensure the sustainable use of these valuable resources while also protecting biodiversity and ecosystem services. By zoning coastal areas based on their vulnerability to natural disasters, the policy aims to reduce the impact of disasters on human populations and infrastructure while also safeguarding important coastal ecosystems. The policy also recognizes the importance of training, awareness, and educational programs in promoting the protection, conservation, and improvement of the quality of natural resources associated with the land. Overall, the National Land Use Policy provides a strong foundation for sustainable land management in the country. By emphasizing the importance of integrated planning, wetland conservation, coastal zone zoning, and public education, the policy seeks to ensure the wise use of land resources while also safeguarding the environment and promoting the well-being of future generations.

Gaps in the NLUP

The NLUP plays a critical role in guiding the sustainable management of land resources within the country. However, there are significant gaps in the policy that need to be addressed to ensure the long-term sustainability of land use practices.

- Sustainable land management involves the responsible use of land resources to meet the needs of the present without compromising the ability of future generations to meet their own needs. This requires a holistic approach that considers environmental, social, and economic factors in decision-making processes related to land use. Unfortunately, the current National Land Use Policy lacks clear mechanisms for promoting sustainable land management practices.
- One of the key issues related to sustainable land management is the rapid urbanization and industrialization that has led to the conversion of agricultural land, deforestation, and degradation of natural habitats. This has resulted in the loss of biodiversity, soil erosion, water scarcity, and other environmental problems that threaten the long-term sustainability of the country's land

resources. The NLUP needs to address these challenges by promoting sustainable land use practices, conserving natural resources, and protecting important ecological areas.

- Another gap in the NLUP is the lack of mechanisms for incorporating the views and interests of local communities, indigenous peoples, and other stakeholders in land use decision-making processes. Sustainable land management requires active participation and engagement of all stakeholders to ensure that their needs and concerns are taken into account. The current policy framework does not provide adequate opportunities for meaningful stakeholder engagement, which can lead to conflicts, resistance, and lack of compliance with land use regulations.

To address these gaps in the NLUP related to sustainable land management, several measures can be taken. First, there is a need to strengthen the policy framework by incorporating clear guidance, targets, and indicators for sustainable land management. This can help to promote sustainable land use practices, reduce environmental degradation, and enhance the resilience of ecosystems to climate change and other threats.

Second, there is a need to enhance stakeholder engagement and participation in land use decision-making processes. This can be achieved through the establishment of mechanisms for consultation, collaboration, and dialogue with local communities, civil society organizations, and other stakeholders. By involving all relevant actors in land use planning and management, it is possible to ensure that their voices are heard, their needs are addressed, and their rights are respected.

Barriers/ Challenges to implementing the NLUP

Lack of legal Authority

In recent decades, rapid urbanization, industrialization, and infrastructure development have led to increased pressure on land resources, resulting in environmental degradation, loss of biodiversity, and conflicts over land use. In response to these challenges, the Sri Lankan government introduced the National Land Use Policy in 2007. The policy aimed to promote sustainable land management practices, protect natural ecosystems, ensure fair distribution of land resources, and promote integrated land use planning at the national and regional levels. However, despite its good intentions, the lack of legal authority has been a major barrier to implementing the policy effectively.

The absence of clear legal frameworks, institutional mechanisms, and enforcement mechanisms has created confusion, ambiguity, and conflicts over land use decisions. As a result, many development projects have continued to prioritize short-term economic gains over long-term environmental sustainability, leading to negative impacts on ecosystems, communities, and future generations.

Lack of funds for implementation.

Without adequate financial resources, investing in infrastructure, human resources, and other necessary elements for implementation becomes challenging. This lack of funding can lead to delays, compromised quality of services, and non-compliance with the intended objectives of the policy.

Divided responsibilities among various agencies.

When different agencies are responsible for different policy aspects, there can be confusion and lack of accountability. This can lead to gaps in implementation and ultimately, failure to achieve the desired outcomes. Implementation efforts are likely to be fragmented and ineffective without a clear delineation of responsibilities and effective coordination among agencies

2. National Environment Policy of Sri Lanka 2022

The National Environment Policy (NEP) of Sri Lanka is a comprehensive document that outlines the country's commitment to sustainable land management. The policy was first introduced in 1998 and has since been revised to reflect changing environmental priorities and challenges in 2022. The NEP aims to promote the conservation and sustainable use of natural resources while ensuring the well-being of current and future generations.

Sri Lanka has a rich history of environmental conservation dating back to ancient times. The country's long agriculture and land management tradition reflects a deep respect for the environment. However, rapid industrialization and urbanization in recent years have put increasing pressure on the country's natural resources, leading to deforestation, soil degradation, and biodiversity loss.

The NEP addresses these challenges by promoting sustainable land management practices. The policy emphasizes the importance of protecting ecosystems, conserving biodiversity, and promoting sustainable agriculture. By integrating environmental considerations into land use planning and development, the NEP seeks to ensure that the country's natural resources are used responsibly and equitably.

Some organizations and institutions play a key role in promoting sustainable land management. The Department of Wildlife Conservation, the Forest Department, and the Ministry of Environment are all involved in implementing the NEP and monitoring its impact. These agencies work closely with local communities, researchers, and other stakeholders to ensure that environmental policies are effectively implemented and enforced.

While the NEP has made significant progress in promoting sustainable land management, some challenges and limitations need to be addressed. One of the main challenges is the lack of sufficient resources and funding for environmental conservation efforts. Limited funding and political will

have hindered the implementation of the NEP in some areas, leading to continued deforestation and degradation of natural habitats.

Another challenge is the lack of awareness and education about sustainable land management practices among the general population. Many farmers and landowners are unaware of the benefits of sustainable agriculture and may continue to use harmful practices that degrade the environment. More efforts are needed to raise awareness and provide training and support to help communities transition to sustainable land management practices.

In conclusion, the NEP plays a crucial role in promoting sustainable land management and environmental conservation. While significant progress has been made, there are still challenges that need to be addressed to ensure the effective implementation of the policy. By working together and building on the efforts of organizations, Sri Lanka can continue to make strides towards a more sustainable and resilient future.

Gaps in the NEP

Sri Lanka is a country with a rich biodiversity and natural beauty, but it is also facing challenges when it comes to sustainable land management. The NEP has made important strides in protecting the environment and promoting sustainable practices, but there are still gaps that need to be filled to ensure the long-term health of the country's land and resources.

- One of the major gaps in the NEP related to sustainable land management is the lack of comprehensive regulations and enforcement mechanisms. While there are laws and policies in place to protect the environment, these are often not effectively implemented or enforced. This means that activities such as deforestation, illegal land clearing, and overgrazing continue to take place, resulting in the degradation of land and loss of biodiversity.
- Another gap in the NEP is the lack of emphasis on sustainable land use planning. The country has limited land resources, and it is important to plan and manage these resources in a way that is sustainable and ensures the long-term health of the environment. However, there is a lack of comprehensive land use planning at the national level, which leads to haphazard development and encroachment on sensitive ecosystems.
- Additionally, there is a lack of coordination and collaboration between different government agencies and stakeholders when it comes to sustainable land management. This fragmentation hinders effective decision-making and implementation of policies related to land use and environmental protection. There is a need for greater coordination and collaboration between government agencies, local communities, and other stakeholders to promote sustainable land management practices.

To address these gaps in NEP related to sustainable land management, several steps can be taken. First, there needs to be greater investment in enforcement mechanisms and capacity-building to

ensure that environmental laws and policies are effectively implemented. This may require training and resources for government agencies responsible for enforcing environmental regulations.

Second, there needs to be a greater focus on sustainable land use planning at the national level. This could include the development of comprehensive land use plans that take into account the different needs and stakeholders involved in land management, as well as the promotion of sustainable practices.

Finally, there needs to be greater coordination and collaboration between government agencies, local communities, and other stakeholders to promote sustainable land management practices. This could involve the establishment of multi-stakeholder partnerships and committees to oversee land management activities and ensure that they are carried out sustainably and responsibly.

3. National Policy on conservation and sustainable utilization of Mangrove ecosystems in Sri Lanka

Mangrove ecosystems play a crucial role in the sustainability of coastal areas. The importance of mangroves has been recognized for their role in protecting coastlines from erosion, providing habitat for a diverse range of species, supporting the livelihoods of local communities, and acting as a carbon sink to combat climate change.

Mangroves have long been recognized for their ecological importance. However, rapid development activities in the coastal areas have led to the degradation of these ecosystems. The National Policy on Conservation and Sustainable Utilization of Mangrove Ecosystems was established to address these threats and promote sustainable management practices. The policy outlines strategies for the conservation of mangroves, including the designation of protected areas, restoration efforts, and community-based conservation initiatives.

The impact of reviewing the National Policy on Conservation and Sustainable Utilization of Mangrove Ecosystems with the relevancy of Sustainable land management is evident in the positive outcomes for both the environment and local communities. By promoting sustainable management practices, the policy has helped to improve the health of mangrove ecosystems, increase biodiversity, and enhance the resilience of coastal areas to climate change. In addition, sustainable land management practices have contributed to the sustainable livelihoods of communities dependent on mangrove resources.

The policy directives outlined in the National Policy on Conservation and Sustainable Utilization of Mangrove Ecosystems are crucial for addressing the current challenges facing mangrove ecosystems. By establishing mangrove ecosystems as state properties, regardless of land ownership, legal protection and habitat management can be ensured. This directive aims to prevent further land encroachment and illegal settlements, which are major threats to the sustainability of mangrove ecosystems.

Encouraging institutional linkages for the conservation and sustainable utilization of mangroves is essential for sharing information and resources to improve management practices. Public and private partnerships can also play a vital role in managing mangrove ecosystems efficiently and promoting mutually beneficial systems. By maintaining natural water flow and water quality in mangrove systems, the policy aims to protect the unique biodiversity and natural functions of these ecosystems.

While the Policy has many positive aspects, there are also challenges and limitations to consider. One of the key challenges is the enforcement of the policy directives, especially in cases where illegal settlements and encroachments have already occurred. Additionally, ensuring effective collaboration between different stakeholders and institutions can be complex and may require ongoing support and resources.

The policy emphasizes the importance of preventing the entry of pollutants, waste, and toxic gases into the mangrove systems to maintain their ecological balance and integrity.

In sustainable land management, the policy recognizes the right to sustainable development with environmental protection as an integral part of the development of mangrove ecosystems. This approach ensures that all development projects undergo environmental impact assessments to mitigate potential environmental harm, regardless of their size or nature. By integrating environmental considerations into decision-making processes, the policy promotes a balanced approach to land use that prioritizes conservation and sustainability.

One of the key aspects of the National Policy is to provide financial support for research on developing tools, methods, and technologies to conserve and restore mangrove ecosystems. This is essential for ensuring the effectiveness of conservation efforts and for promoting sustainable land management practices. Research can help identify the most suitable conservation strategies, assess the status of ecosystems, and inform decision-making processes based on scientific evidence.

The policy also emphasizes the importance of providing timely and logistical support for research and conservation activities. This includes ensuring that researchers have access to the necessary resources, equipment, and facilities to carry out their work effectively. Timely support is essential for addressing urgent conservation needs and responding to emerging threats to mangrove ecosystems.

Barriers / Challenges to implementing the policy

- Lack of awareness and understanding of the importance of mangrove ecosystems among stakeholders, local communities, and resource users. Many people view mangroves as wastelands or obstacles to development, rather than as valuable and fragile ecosystems that need to be conserved.
- The conflicting objectives of different government agencies and development projects. While the National Policy aims to protect and sustainably manage these ecosystems, other

government initiatives may prioritize economic development or infrastructure projects that lead to the destruction of mangrove forests. This lack of coordination and conflicting priorities make it difficult to effectively implement the policy.

- Inadequate funding and resources for mangrove conservation efforts pose a significant barrier to implementation. Many government agencies responsible for managing mangrove ecosystems lack the necessary resources, staff, and technical expertise to effectively carry out their mandates. As a result, enforcement of regulations, monitoring of mangrove areas, and community engagement efforts are often weak or inconsistent.
- Lack of community involvement and stakeholder participation in decision-making processes related to mangrove management is another barrier to the effective implementation of the policy. Local communities who depend on mangrove ecosystems for their livelihoods are often not consulted or included in decision-making processes, leading to conflicts and resentment towards conservation efforts.

Gaps in the Policy

- The policy emphasizes the importance of conserving mangrove ecosystems, but it fails to provide specific strategies for addressing threats such as illegal logging, land conversion, and pollution that can negatively impact these ecosystems.
- The policy does not fully account for the impacts of climate change on mangrove ecosystems, including sea level rise, salinity intrusion, and extreme weather events.
- The policy does not adequately address the socio-economic aspects of sustainable land management within mangrove areas. The policy fails to consider the needs and concerns of local communities who depend on mangrove ecosystems for their livelihoods, such as fisherfolk and farmers. Without incorporating the perspectives of these stakeholders into the policy framework, there is a risk of implementing conservation measures that may have negative impacts on local communities.

4. National Wetland Policy and Strategy 2006

National Wetlands Policy and Strategy plays a critical role in ensuring sustainable land management and conservation of this valuable natural resource. Wetlands are vital ecosystems that provide a wide array of ecological, economic, and social benefits, including flood control, water

purification, fish habitat, and recreational opportunities. However, wetlands in Sri Lanka are facing increasing threats from human activities such as drainage, agriculture, urbanization, and pollution.

The policy outlines a comprehensive approach to wetlands management, emphasizing the need for zoning and classification based on ecological, utilitarian, international, national, and local significance. This helps in identifying the most important wetlands for conservation and ensuring that they receive the necessary protection and management measures. By inventorizing wetlands and clearly defining ownership through legal reforms, the policy seeks to establish clear guidelines for the sustainable management of these ecosystems.

One of the key components of the policy is the integration of wetland management into land use plans at all levels. This ensures that wetlands are considered in the planning process and that their conservation and sustainable use are incorporated into broader development strategies. By bringing privately owned wetlands under appropriate management systems, the policy aims to address issues of overexploitation and degradation that could threaten these valuable ecosystems.

The restoration of degraded wetlands is also given priority in the policy, recognizing the importance of rehabilitation efforts in ensuring the long-term health and productivity of these ecosystems. By focusing on restoration, the policy aims to reverse the damage caused by past activities and promote the recovery of wetland habitats and functions.

One of the key principles of the policy is the sustainable use of wetlands and equitable benefit sharing. This involves managing wetlands in a way that allows for their continued use while ensuring that benefits are distributed fairly among all stakeholders. This approach promotes the long-term preservation of wetlands and the resources they provide, while also addressing issues of social justice and equity.

Another important aspect of the policy is habitat conservation and integrated management. This involves protecting the fragile ecosystems of wetlands and managing them in a holistic manner that considers all aspects of their functioning. Integrated management strategies take into account the interconnectedness of ecological processes and human activities, ensuring that both are sustainable in the long run.

The policy also emphasizes the importance of participatory and collaborative processes in wetland management. Active and informed participation of civil society is encouraged, as it is essential for the success of conservation efforts. By involving local communities, NGOs, and other stakeholders in decision-making processes, the policy aims to increase awareness and support for wetland conservation.

Sustainable financing mechanisms are another key component of the policy. Developing funding sources from both local and foreign sources ensures that resources are available for the management and wise use of wetlands. This financial support is critical for implementing

conservation activities, conducting research, and enforcing regulations to protect wetland ecosystems.

To facilitate the implementation of the policy, local Wetland Management Committees are established under the National Environment Act. These committees work closely with government agencies responsible for wetlands, as well as divisional, district, and provincial-level committees. By creating a network of committees at different levels, the policy ensures that wetland management is coordinated and effective across the country.

Another component of the policy is the establishment of a National Wetland Steering Committee, which will be comprised of representatives from various stakeholder groups, including government agencies, non-governmental organizations, and local communities. This multi-stakeholder approach ensures that diverse perspectives are taken into account when making decisions related to wetland management.

Additionally, the policy mandates the establishment of National Wetland Management Units within the Ministry responsible for the environment. These units will be responsible for overseeing and facilitating the implementation of the policy at the national level. This coordination mechanism is crucial for ensuring effective policy implementation across different sectors and levels of government.

Another important aspect of the policy is the integration of principles of sound wetland ecosystem management into sectoral plans at all levels. This ensures that development activities in wetland areas are consistent with the overall goal of sustainable land management. By taking a holistic approach to planning and decision-making, the policy aims to protect and restore wetland ecosystems while also supporting sustainable development.

Research and monitoring are also key components of the policy, with a focus on promoting research programmes that facilitate conservation, sustainable use, restoration, and adaptive management of wetlands. By integrating the results of such research into the management process, policymakers can make informed decisions that are based on scientific evidence and best practices.

Furthermore, the policy emphasizes the importance of training, education, and awareness-raising on wetland conservation at various levels. By capacity building and raising awareness among stakeholders, the policy aims to foster a culture of responsible stewardship and engagement in wetland conservation efforts.

Challenges/ Barriers to Implementing the National Wetland Policy and Strategy

There are challenges in implementing the policy and strategy that need to be addressed to ensure effective protection and sustainable management of these vital ecosystems.

- Lack of effective enforcement mechanisms. This has led to the continued degradation of wetland ecosystems due to illegal activities such as land reclamation, deforestation, and pollution.
- Limited financial and human resources allocated to wetland conservation and management. Despite the ecological and economic importance of wetlands, funding for conservation efforts remains inadequate. This has hampered the implementation of key initiatives, such as wetland restoration, monitoring, and community engagement.
- Lack of coordination and collaboration among relevant stakeholders is another challenge in the National Wetland Policy and Strategy. Effective wetland management requires collaboration among government agencies, local communities, NGOs, and other stakeholders. However, there is often a lack of coordination among these groups, leading to overlapping mandates, conflicting priorities, and inefficient use of resources.

Gaps in the National Wetland Policy and Strategy

- The policy acknowledges the importance of wetlands and the need for their conservation, but it does not provide a clear framework for categorizing and prioritizing wetlands based on their ecological value or vulnerability. This has led to inconsistencies in the management of wetlands, with some being heavily exploited for development or agriculture, while others are left unprotected.
- The lack of adequate monitoring and enforcement mechanisms to ensure compliance with wetland conservation regulations. While the policy outlines various measures for the protection of wetlands, such as the prohibition of draining or filling wetlands without authorization, there is little information on how these regulations will be enforced or monitored. This has resulted in widespread illegal activities in wetlands, such as land reclamation and pollution, which continue to threaten their ecological integrity.
- The Policy lacks a comprehensive approach to addressing the impacts of climate change on wetlands. With rising sea levels and changing precipitation patterns, wetlands are increasingly under threat from saltwater intrusion, flooding, and habitat loss. The policy does not provide specific strategies for adapting to these challenges or mitigating their impacts on wetland ecosystems.
- There is a need for greater stakeholder engagement and participation in the decision-making process related to wetland management. The National Wetland Policy and Strategy fails to adequately involve local communities, NGOs, and other relevant stakeholders in the development and implementation of wetland conservation initiatives. This has resulted in a lack of community ownership and support for wetland conservation efforts, limiting their effectiveness and sustainability.

5. Wildlife Policy of Sri Lanka

The Wildlife Policy is focused on sustainable land management and aims to protect and preserve the various ecosystems found in the country. The policy emphasizes the importance of conserving viable and representative samples of all ecosystems, including sites of special scientific interest. To achieve this, the policy calls for the enlargement and connection of protected areas to create viable conservation units

One of the key priorities outlined in the policy is the conservation of the remaining natural wet zone forests. These forests are currently under-represented in the national systems of protected areas, making them particularly vulnerable to degradation and destruction. The policy recognizes the urgent need to take steps to conserve these forests to preserve their unique biodiversity and ecological importance.

To effectively manage and monitor protected areas, the policy calls for the identification, classification, and ongoing monitoring of all protected areas based on appropriate scientific studies and agreed criteria. This ensures that protected areas are managed in a scientifically sound and effective manner, with a focus on conservation and sustainability.

Furthermore, the policy emphasizes the importance of developing and implementing approved management plans for all protected areas. These management plans are to be reviewed and revised regularly to ensure that they are up-to-date and effective. The implementation of these plans is to be carried out by staff at the field level, who will be provided with the authority and resources necessary to effectively manage and protect the protected areas.

One of the main objectives of the wildlife policy is to ensure that protected areas are internally zoned according to accepted criteria. This means that different resources within each zone are taken into consideration, as well as the most appropriate sustainable use of these resources. By effectively zoning protected areas, the policy aims to balance conservation efforts with the need for sustainable development in these areas.

Another important aspect of the wildlife policy is the management of protected areas within the context of their surrounding landscapes. This involves considering the ecological, social, and economic links between natural and human systems. By taking a holistic approach to the management of protected areas, the policy aims to ensure that conservation efforts are successful in the long term.

The policy also emphasizes the promotion of active, ecosystem-based management of protected areas. This includes the eradication of alien and invasive species, which can have detrimental effects on native wildlife and ecosystems. By eliminating these species wherever possible, the policy aims to restore balance to the ecosystem and promote biodiversity conservation.

Furthermore, the wildlife policy regulates the importation of alien organisms, including genetically modified organisms, to minimize risks to the integrity of the country's biodiversity. By controlling the introduction of foreign species, the policy aims to prevent the spread of invasive species and protect native wildlife and ecosystems.

Another aspect of this policy is the recognition and incorporation of traditional knowledge possessed by the people regarding sustainable ecosystem use. Valuing the traditional knowledge of sustainable ecosystem use possessed by the people and incorporating this within wildlife management systems is crucial for promoting sustainable land management practices. By recognizing the expertise of local communities and integrating their traditional knowledge into conservation efforts, the government can work towards achieving a more harmonious balance between wildlife conservation and sustainable land use.

Barriers to implementing the policy

Despite the ambitious goals outlined in the policy, several barriers hinder its effective implementation.

- Lack of funding and resources. The government often faces budget constraints, which limits the financial support available for wildlife conservation efforts. This lack of funding hampers the ability of conservation agencies to effectively implement conservation programs such as habitat restoration, anti-poaching patrols, and public education campaigns and protect endangered species.
- The presence of conflicting interests and priorities. Sri Lanka is a developing country with a rapidly growing population, and there is often competition for land and resources between wildlife conservation efforts and other development projects. For example, the construction of roads, hotels, and other infrastructure can encroach on critical wildlife habitats, leading to conflicts between conservationists and developers.
- Political factors can also pose barriers to implementing the Wildlife Policy. Government officials may prioritize short-term economic gains over long-term conservation goals, leading to decisions that are not aligned with the objectives of the policy. In some cases, corruption and lack of transparency may further exacerbate these challenges, as vested interests may push for policies that benefit them personally at the expense of wildlife and the environment.

Gaps in the policy

- Lack of coordination and collaboration among government agencies, non-governmental organizations, and local communities involved in wildlife conservation. There is often a lack of communication and sharing of resources among these stakeholders, leading to inefficiencies and

duplication of efforts. A more coordinated and integrated approach to wildlife conservation is needed to ensure that conservation efforts are effective and sustainable.

- Lack of clear guidelines and regulations for sustainable wildlife tourism. While wildlife tourism can provide important economic benefits to local communities and support conservation efforts, it can also pose significant threats to wildlife if not managed properly. The Wildlife Policy needs to include specific guidelines for sustainable wildlife tourism practices, including regulations for tourist activities, visitor numbers, and infrastructure development in protected areas.

6. The National Climate Change Policy of Sri Lanka

Sri Lanka, like many other countries around the world, is facing the impacts of climate change. Rising temperatures, erratic rainfall patterns, and extreme weather events are threatening the country's environment and natural resources, including its land. Sri Lanka has shown a commitment to addressing climate change through both national and international initiatives. The country signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and ratified the Kyoto Protocol in 2002. Sri Lanka has also developed various policies and plans to mitigate and adapt to climate change, such as the National Climate Change Policy (2012), the National Climate Change Adaptation Strategy and Action Plan (2011) and the National Adaptation Plan for the Climate Change Impacts in Sri Lanka, 2016 - 2025. These documents outline the country's strategies for addressing climate change, including reducing greenhouse gas emissions, enhancing resilience to climate impacts, and mainstreaming climate change considerations into development planning.

The policy outlines key objectives to recognize and address the adverse impacts of climate change on various sectors of the economy, as well as the natural and built environment, at different levels of governance.

One of the key aspects of the policy is the recognition of the vulnerability of the socio-economic and environmental sectors to adverse impacts of climate change. This recognition is crucial in informing the development of strategies and mechanisms to prevent, mitigate, and manage disasters caused by climate change, and to protect communities, ecosystems, and the natural and built environment. By integrating climate change considerations into national, provincial, district, and local level development plans and programmes, the country can ensure that climate resilience is mainstreamed into decision-making processes.

Furthermore, the policy emphasizes the importance of taking timely action to address the adverse impacts on crop and animal production, fisheries sectors, and food security due to climate change. By encouraging the adoption of climate-resilient, environmentally friendly technologies, as well as promoting traditional knowledge and practices in food production, the country aims to minimize the impacts of climate change on agriculture and ensure food security for its population.

In the context of sustainable land management, the National Climate Change Policy plays a crucial role in promoting the sustainable use of land resources, reducing land degradation, and conserving ecosystems. By addressing the adverse impacts of climate change on land resources and promoting climate-resilient agriculture and land-use practices, the country can enhance the sustainability of its land management practices.

The policy focused on the importance of taking action to minimize the impacts of climate change on water resources. Erratic precipitation patterns, temperature rise, and seawater rise are all consequences of climate change that can have detrimental effects on water availability and quality. In response to these challenges, the policy promotes integrated watershed and water resources management, as well as efficient water use through technologies and adaptive behaviors. By prioritizing the resilience of water resources to changing weather patterns, the country can better cope with the impacts of climate change on water availability.

Furthermore, the Policy encourages environmentally sound and socially acceptable agriculture and livestock practices within the framework of sustainable development. This policy recognizes the importance of agriculture in the country's economy and the need for sustainable practices to ensure the long-term viability of the sector. By promoting innovative technologies and traditional knowledge in agriculture, the country can enhance its resilience to climate change while also promoting sustainable land management practices.

In relevance to sustainable land management, these policies provide a comprehensive framework for addressing the impacts of climate change on water resources and agriculture. By incorporating low-emission strategies, adaptive technologies, and sustainable practices into human settlement, land use planning, and urban development, the country can better prepare itself for the challenges posed by climate change.

The Policy is a comprehensive and forward-thinking approach to addressing the challenges of climate change in the country. This policy is focused on sustainable land management, recognizing the crucial role that land management plays in both mitigating the impacts of climate change and promoting environmental sustainability.

The policy emphasizes the need to identify, recognize, develop, and disseminate environment-friendly products, processes, and techniques that promote the sustainable utilization of natural resources. By encouraging the adoption of sustainable land management practices, such as agroforestry and sustainable agriculture, the policy aims to reduce the adverse impacts of human activities on natural resources and biodiversity. This not only helps to protect the environment but also ensures the long-term viability of these resources for future generations.

Another important aspect of the Policy is the recognition of the importance of forests in carbon storage and sequestration. The policy acknowledges the need to improve the carbon storage capacity of forests through effective forest management practices. This includes not only protecting and preserving existing forests but also actively restoring and expanding forest areas to

enhance their carbon storage potential. By recognizing the multiple ecosystem services provided by forests, such as biodiversity conservation and water regulation, the policy takes a holistic approach to forest management that benefits both the environment and society.

In addition to promoting sustainable land management practices and forest conservation, the policy also emphasizes the importance of knowledge sharing and capacity building to address the multifaceted issues of climate change. By adopting multiple approaches to enhance the knowledge, skills, and attitudes of different stakeholders at all levels, the policy aims to build a strong foundation for climate change adaptation and mitigation efforts. This includes facilitating the availability, accessibility, and sharing of climate change-related information across all sectors and promoting strategic partnerships among stakeholders to address the complex challenges posed by climate change.

Another key component of the Policy is the promotion of research and development aimed at addressing climate change issues at the national level. This involves investing in scientific research to better understand the impacts of climate change on Sri Lanka, as well as developing innovative solutions to mitigate these impacts. By prioritizing research and development, the government of Sri Lanka is taking a proactive approach to tackling climate change and ensuring the long-term sustainability of the country.

Additionally, the Policy emphasizes the importance of regional and international cooperation and networking to promote climate change research. Recognizing that climate change is a global issue that requires coordinated efforts from all countries, Sri Lanka is committed to collaborating with other nations to share knowledge, best practices, and technologies to address climate change. By fostering cooperation at the regional and international levels, Sri Lanka can benefit from the expertise and resources of other countries in its efforts to combat climate change.

Furthermore, the Policy calls for action to disseminate research findings among all stakeholders, including those at the grassroots level. This is crucial in ensuring that communities across the country are informed about the impacts of climate change and can take proactive measures to adapt and mitigate its effects. By raising awareness and empowering local stakeholders with the knowledge and tools to address climate change, the government of Sri Lanka can build resilience at the community level and ensure that sustainable land management practices are implemented effectively.

Barriers to implementing the National Climate Change Policy

- Lack of political will and commitment. While the government has taken steps to address climate change, there has been a lack of consistent action and investment in initiatives to mitigate and adapt to climate change. Political instability and competing priorities have often diverted attention and resources away from climate change issues, making it difficult to achieve meaningful progress.

- Limited financial resources available for implementing climate change adaptation and mitigation measures. While the country has received some international funding to support its climate change initiatives, domestic funding for these efforts remains insufficient. Limited financial resources and competing demands on the budget have constrained the country's ability to fully implement the National Climate Change Policy.
- Institutional capacity and coordination pose significant challenges to policy implementation. Climate change is a complex and multi-sectoral issue that requires coordination among various government agencies, as well as collaboration with civil society organizations and the private sector. The institutional framework for addressing climate change is fragmented, with overlapping mandates and limited capacity for coordination and implementation.

Gaps in the policy

- Lack of integration between different sectors and levels of government. Climate change is a cross-cutting issue that requires coordination and cooperation among various government agencies, departments, and levels of government to effectively address its impacts. However, there is limited coordination and communication between these entities, leading to fragmented and inconsistent approaches to climate change policy and planning.
- Lack of public awareness and engagement on climate change issues. While there have been some education and outreach campaigns on climate change, these efforts have been limited in scope and reach. As a result, many people are unaware of the risks and impacts of climate change and the actions they can take to address these challenges. Without informed and engaged citizens, it will be difficult to build the political will and social support necessary to drive meaningful climate change policy and action.

7. Policy & strategy on cleaner production for the Agricultural sector of Sri Lanka

Sri Lanka has faced various environmental challenges due to rapid development activities, leading to increased pollution levels and resource depletion. The agricultural sector, which forms the backbone of the country's economy, has been particularly vulnerable to these environmental pressures. As a result, the government introduced the National Policy on Cleaner Production & Strategy for the Agricultural Sector to address these issues and promote sustainable agricultural practices.

This policy aims to adopt sustainable land management practices in the agricultural sector, ensure the efficient use of water resources, apply a life cycle approach to reduce overuse/misuse of resources and waste generation, develop market-based instruments to improve sustainable productivity, prevent the usage of ecologically harmful materials such as Persistent Organic Pollutants (POPS) pesticides and Take measures to reduce/mitigate environmental pollution due to agricultural practices.

The country has faced challenges related to unsustainable agricultural practices leading to land degradation, water scarcity, and environmental pollution. Recognizing these issues, the government has proactively promoted sustainable land management in the farming sector.

The impact of this Policy relevant to sustainable land management has been significant. By promoting sustainable practices, such as organic farming, crop rotation, and water conservation techniques, the country has improved soil health, conserved water resources, and reduced pollution from agricultural activities. Farmers have also benefited from increased productivity, higher market values for their produce, and improved livelihoods. Additionally, the policy has helped to reduce the use of harmful pesticides and chemicals, leading to a healthier environment for both ecosystems and communities.

The policy has made significant progress in improving agricultural practices, reducing pollution, and conserving natural resources. While various perspectives exist on the subject, it is essential to continue supporting and enhancing this policy to ensure a greener and more sustainable future for the country's agricultural sector.

Barriers/ Challenges to implementing the policy

Despite the government's efforts, several barriers have prevented the effective implementation of this policy in the agricultural sector.

- Lack of awareness and understanding among farmers about the importance of cleaner production practices. Many farmers continue to rely on traditional farming methods that are harmful to the environment and human health, without realizing the long-term consequences of their actions.
- Limited access to resources, such as funding and technology, has also hindered the adoption of cleaner production practices in the agricultural sector. Small-scale farmers, in particular, struggle to invest in modern equipment and technologies that can help reduce environmental impact and enhance productivity. Without adequate support from the government and other stakeholders, these farmers are unable to transition to more sustainable farming practices.
- Lack of coordination and collaboration among government agencies, research institutions, and private sector entities has made it difficult to effectively implement the Policy. Each stakeholder operates in silos, without sharing information and resources, leading to inefficiencies and duplication of efforts. This disjointed approach has prevented the holistic implementation of the policy and limited its impact on the ground.

Researchers and academics have conducted studies and developed innovative solutions to promote sustainable farming practices and reduce environmental pollution. Non-governmental

organizations have also played a crucial role in raising awareness and providing training to farmers on cleaner production methods.

Moving forward, it is essential to address these barriers and create an enabling environment for the successful implementation of the Policy. This requires a coordinated effort from all stakeholders, including the government, private sector, civil society, and farmers themselves. By investing in education, technology, and infrastructure, the agricultural sector can transition to more sustainable practices and contribute to the country's environmental goals.

Gaps in the Policy

- Without adequate regulations and enforcement mechanisms, farmers continue to use harmful agrochemicals and engage in unsustainable practices, leading to environmental degradation and health risks.
- Lack of proper monitoring and evaluation systems also hinders the implementation of cleaner production practices and limits the positive impact on the environment and society.

8. National Physical Planning Policy and Plan of Sri Lanka (2010-2030)

The National Physical Planning Policy and Plan of Sri Lanka (2010-2030) is a crucial document that guides the country's development in terms of land use, infrastructure, and environmental conservation. The Policy focuses on sustainable land management by emphasizing the conservation of critical and unique areas while promoting livability for humans. This policy is crucial in ensuring the long-term sustainability of Sri Lanka's natural resources and environment.

The country's diverse ecosystems, including rainforests, wetlands, and coastal areas, are home to a wide range of plant and animal species. However, rapid urbanization and industrialization in recent decades have put pressure on these ecosystems, leading to habitat destruction, deforestation, and pollution. In response to these challenges, the government of Sri Lanka introduced the National Physical Planning Policy and Plan in 2010. This policy aims to guide land use planning and development sustainably, balancing the needs of economic growth with environmental conservation. By conserving critical and unique areas and promoting livability for humans, the policy seeks to ensure the long-term sustainability of land resources.

The National Physical Planning Policy and Plan have the potential to have a significant impact on sustainable land management in Sri Lanka. By prioritizing the conservation of critical and unique areas, such as biodiversity hotspots and water catchments, the policy can help protect valuable ecosystems and natural resources from degradation.

Moreover, by promoting livability for humans through the development of sustainable urban and rural settlements, the policy can improve the quality of life for Sri Lankan citizens. This includes

ensuring access to clean water, green spaces, and safe housing, as well as reducing pollution and congestion in urban areas.

However, there are also some challenges and potential drawbacks associated with the policy. One concern is the implementation of the policy at the local level, where conflicts may arise between competing interests, such as land developers, farmers, and conservationists. Balancing these interests while ensuring sustainable land management practices will require strong governance, community engagement, and effective enforcement mechanisms.

Looking ahead, the future of sustainable land management in Sri Lanka will depend on the continued implementation of the National Physical Planning Policy and Plan. This includes monitoring and evaluating the impact of the policy on the ground, adapting to changing environmental conditions and incorporating new scientific knowledge and technologies into land use planning.

Barriers / Challenges to implementing the National Physical Planning Policy and Plan

Barriers to implementing the Policy concerning sustainable land management have been a significant challenge for the country. The Policy aims to promote sustainable land use practices, environmental conservation, and balanced regional development. However, several obstacles have hindered the successful implementation of this policy, resulting in negative impacts on the environment and society.

- Lack of coordination among government agencies, local authorities, and stakeholders. The fragmented institutional framework and overlapping mandates have resulted in conflicting policies, inefficient decision-making, and ineffective enforcement mechanisms. This has undermined the efforts to achieve sustainable land management goals and created confusion among stakeholders.
- Inadequate financial resources and budgetary constraints have limited the implementation of the National Physical Planning Policy and Plan. The government has struggled to allocate sufficient funding for infrastructure development, land-use planning, environmental conservation, and capacity-building initiatives. This has hindered the implementation of sustainable land management practices and eroded the effectiveness of existing policies and regulations.
- Political instability, corruption, and lack of political will have posed significant challenges to implementing the Policy. Changes in government leadership, shifts in policy priorities, and vested interests have disrupted the continuity of sustainable land management efforts and undermined the credibility of planning processes. This has led to inconsistencies in decision-making, delays in project implementation, and reduced public trust in the government's commitment to environmental sustainability.

By overcoming these challenges, Sri Lanka can achieve balanced and inclusive development that benefits all of its citizens.

Gaps in the Policy

- Inadequate public participation and stakeholder engagement in the planning process. The National Physical Planning Policy and Plan of Sri Lanka were developed with limited input from local communities, civil society organizations, and other stakeholders. This has resulted in a lack of ownership and support for the policy, leading to resistance and opposition to its implementation.

To address the gaps in the Policy, there is a need for greater coordination among government agencies, enhanced public participation, and capacity building for planners. The government should prioritize sustainable development, green infrastructure, and climate resilience in its planning initiatives.

9.1 General barriers for implementation identified by stakeholders.

There are several barriers highlighted by stakeholders. This analysis revealed that there are several reasons for this disparity in the implementation of these policies. The reasons are briefed below.

Lack of resources and inadequate legal backup are given as main implementation barriers in most of the policies. The general barriers/limitations are.

- a) Lack of funds for implementation.
- b) No proper legal backing for some of the policies.
- c) Lack of technology
- d) Lack of necessary baseline data
- e) Inadequate knowledge and inadequate awareness
- f) Lack of capacity of the institutions.
- g) Attitudes of the people.
- h) Poor collaboration.
- i) No proper mechanism for PPPP.
- j) Absence of national plan for cultivation of agricultural crops
- k) Lack of research skills.
- l) No proper mandate.
- m) No performance-based evaluation.
- n) Inadequate participation of stakeholders in decision making.
- o) Resettlement difficulties in disaster management.
- p) Land ownership issues in implementing the policies.
- q) Divided responsibilities among various agencies.
- r) Focal points are not identified in some cases.
- s) No appropriate strategies developed.
- t) Excessive cost associated with implementation.
- u) Absence of proper monitoring mechanisms.
- v) Absence of mechanism to obtain people participation.
- w) Social issues in implementing some of the policies.

10. A FRAMEWORK FOR ACTION IN IMPLEMENTING SLM IN SRI LANKA

In the above policy analysis, it was observed that there are a number of policies related to sustainable land management and cover a wide spectrum of SLM related subject areas. Therefore, there is no need for a separate national policy for sustainable land management. In addition, there is a wide range of legal environment and a wide network of institutions in this regard. However, it is evident that the implementation of sustainable land management strategies is not satisfactory. Nevertheless, it was observed that sustainable land management can be implemented by relevant stakeholders in a more realistic manner within the existing policy, legal and institutional framework.

To develop “A Framework for Action”, SWOT analysis was carried out considering the discussions with the stakeholder agencies and various investigations and sources. The results are given below.

Strengths:

1. A wide spectrum of relevant policies.
2. Adequate Coverage of Legislations
3. Institutions with mandatory powers
4. Availability of Futuristic Action Plans

Weaknesses:

1. Poor coordination among stakeholder institutions.
2. Limited Implementation Capacity due to Budgetary Constraints
3. Limited Research Findings
4. Limited Community Participation
5. Issues related to Sectoral VS Integrated Planning
6. Lack of Awareness on Laws, and Policies related to SLM in certain institutions.

Opportunities:

1. Studies show that investment in SLM will produce economic, financial, and environmental benefits at all levels.
2. Potential for the improvement of existing unproductive land uses.
3. A favorable environment for minimizing land degradation.
4. Possibility for the enhancements of biodiversity and environmental services
5. Possibility to incorporate Bilateral and Multilateral Initiatives related to SLM (i.e. Land Degradation Neutrality, SD Goals etc.)

Threats:

1. Delays and poor success due to adverse climatic conditions such as droughts or floods and other natural disasters.
2. Violation of Laws and Regulations by powerful groups
3. Difficulty in changing mindset due to addict malpractices related to resources utilization/extraction.

4. Corruption and Bureaucracy

Accordingly, the following priorities are proposed for a more constructive action framework by avoiding the identified weaknesses and controlling the expected challenges. Therefore, it is advisable that this framework of implementation should be met with the following principles and requirements.

1. To provide initial intervention to a central coordinating agency that can integrate all stakeholder institutions. The Ministry of Environment, which is already dealing with land resource management, is the most suitable agency for this purpose.
2. The Central Coordinating institute shall have a National Steering Committee on SLM consisting of the following key stakeholders. Ministries in-charge of the subject of: Land, Agriculture, Irrigation, Water Resource, Water Supply and Drainage, Plantation Management, Urban Development, Road Development, Mahaweli Development, Physical Planning, Forestry Resources, Wildlife, Environment Management, Disaster Management, Agrarian Development, Meteorology, National Planning and Finance.

Roles and responsibilities of the National Steering Committee on SLM are as follows.

1. Enhance integrated, collaborative policy, and systematic planning environment with the help of multi-stakeholders.
2. Integrate sectoral plans into “Integrated Sustainable Land Management Plan” by reviewing and compiling all related sectoral plans of the stakeholder institutions.
3. Identify, Short-, Medium- and Long-Term strategic actions to achieve SLM priorities of the country.
4. Implement regular monitoring and evaluation system for each strategic action.
5. Facilitate to resolve constraints pertaining to financial, physical, and human resources for all necessary stakeholders.

Major thematic areas suggested in developing integrated sustainable land management plan includes number of main programs and supportive programs are annex to this report. (Pl. see -Annex 02)

Annex -01

List of Stakeholders Suggested for Consultation Workshop

1. Forest Department
2. Wildlife Conservation Department
3. Agriculture Department (NRMC)
4. *Agrarian Development Department*
5. *Irrigation department*
6. Land Use Policy Planning Department
7. National physical Planning Department
8. Land Commissioners Department
9. Coast Conservation Department
10. Survey Department
11. Meteorology Department
12. National Building Research Organization
13. National Gem & Jewelry Authority
14. Disaster Management Centre
15. International Institute of Water Management (IWMI)
16. Export Crop Development Department
17. Urban Development Authority
18. Water Resource Board
19. National Water Supply & Drainage Board
20. Central Environmental Authority
21. Mineral & Mines Bureau
22. Mahaweli Authority of Sri Lanka
23. Ministry Level Representations:
24. Land, Irrigation & Water supply Forestry, Environment & Wildlife Agriculture, Plantation & Livestock
25. Representatives from: TRI, RRI &CRI
26. Three Members from Academic Field

25.

Annex-02
Suggested Main Programs of SLM

	Main Programs	Objective
1	Promote the Integrated Management of Upper Watersheds	To protect and conserve watersheds to enhance water availability and to increase the productivity of agricultural and forest land and reduce downstream siltation.
2	Rehabilitate Degraded Agricultural Lands	Rehabilitate Degraded Agricultural lands by motivating and mobilizing farmers to adopt cost effective measures to improve soil fertility.
3	Protection of Streams and Stream banks	To minimize stream bank Erosion
4	Protect Springs and Water Sprouts	To Provide protection for major springs and waterspouts.
5	Conservation of Reservoir Reservations	To prevent soil erosion in reservations and the siltation of tank beds and to enhance soil and water conservation through Integrated Participatory Tank Cascade Management
6	Reclaim Problem soils	Improve productivity of agricultural lands affected by water logging, salinity and acidity.
7	Promote Sustainable Groundwater Management	Map and inventories occurrence of groundwater availability and established safe limits of extraction of aquifers.
8	Promotes integrated biodiversity conservation	To protect biodiversity for Environmental Conservation and protection.
9	Prevent the decline in the forest cover	Prevent encroachment on forest reserves and proposed forest reserves.
10	Restore degrade forest	Bring degraded forest areas under productive use.
11	Conserve and improve grasslands	Conserve and improve grasslands and expand the extent under pasture.
12	Stablished a drought early warning system	To minimise the adverse impacts of draw through timely and bitter drought early warning systems.
13	Strengthen drought relief systems	To reduce the adverse effects of drought on the people living in drought prone areas.
14	Strengthen rainwater harvesting systems	To mitigate the effects of drought on domestic water supplies and agriculture by promoting rainwater harvesting
15	Promote sustainable agriculture practises	(i) Increase productivity in agriculture Objective:

		<p>Enhancing agriculture productivity while reducing land degradation</p> <p>(ii) Strengthened land degradation related agricultural research and extension services</p> <p>Objective: Strengthen the research capacity of the DOA and the extension services of the provincial departments of agriculture on land degradation</p>
16	Provide alternative income generating opportunities	<p>(i) Promote agro-based industries in rural areas</p> <p>Objective: To reduce the pressure on the land through the introduction of off farm employment opportunities</p> <p>(ii) Mainstream poverty reduction programmes into the national development agenda</p> <p>Objective: Ensure poverty reduction programmes are an integral part of the national development agenda.</p>
17	Consolidation unproductive lands	<p>Objective: Take measures to consolidation of unproductive agricultural lands which are fragmented due to continuous subdivision and fragmentation.</p>

Suggested Supportive Programs of SLM

	Supportive Programs	Objective
1	Strengthen the policy framework	<p>(a) Adopt an integrated approach to Land Management</p> <p>Objective: Ensure all sectoral policies are directed toward promoting integrated land resource management</p> <p>(b) Ensure that environmental concerns are interest in the formulation of economic policies</p> <p>Objective: Incorporate environmental concerns including cost intuition making pertaining to land resources management</p> <p>(c) Review current land alienation and encroachment regularisation policies</p> <p>Objective: Ensure that name is not alienated in environmentally fragile areas and that title is provided to those adopting good Land Management practises</p> <p>(d) Introduce economic instruments to minimise land degradation</p> <p>Objective: To provide necessary incentives and disincentives to land uses to promote efficient Land Management and minimise land degradation.</p>
2	review related laws	<p>Objective: To develop a legal framework to support policy initiatives and to provide an enabling environment for effective implementation of Land Management programmes.</p>
3	Enhance institutional capacity	<p>Objective:</p>

		established effective land coordination mechanisms and strengthen the capacity of institutions managing land resources.
4	Promote capacity building of land uses and other stakeholders	Objective: Identify and develop amongst landowners and stakeholders' necessary knowledge and technical skills required for dealing with Land Management Issues in the country.
5	Develop and transfer appropriate technologies	Objective: to improve the capacity of land users in management of their land maintaining higher level of production
6	Promote data collection and information sharing	Objective: to collect the data needed for the effective use of the land resources; promote coordination amongst institutions collecting and store the data in a manner in which all stakeholders can access the data
7	Promote education and raise/public awareness on environmental issues	Objective: create mass awareness on land degradation and its impacts specially among school and university students and vulnerable communities on environmental issues
8.	Gender-Responsive Land Titling:	Objectives: Engage with local partners to raise awareness about women's rights and access to land registration services. Ensure outreach programs include information on women's property rights, how to title property, and the benefits of land titling for both women and men.
9.	Strengthening Women's Land Rights	Objectives: Support agribusinesses and governments in implementing gender-equitable land policies.

		Register land rights through gender-responsive processes to create a stable environment for investment and growth
10	Community Engagement	Objectives: Tap into national campaigns to sustain dialogues on women's empowerment in rural communities. Involve local women leaders to strengthen legitimacy and knowledge

