



# **National Policy on Protection and Conservation of Water Sources, their Catchments and Reservations in Sri Lanka**

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## **01. Introduction**

- 1.1 Water is one of the main natural resources in Sri Lanka and it is the main factor which contributes to the country's economic development since the past. Sri Lanka being an agricultural country, the irrigation has had a unique contribution towards country's agro economy from history to this date. In spite of that the water resource has become a prominent source in industry, supply of services, consumption (drinking) as well as recreation activities and tourism and hydro power generation. The requirement of a new strategic approach on water resources management in Sri Lanka has been included in the National Development Plans and agendas where the country is forging ahead towards development though a new economic vision apt for the 21<sup>st</sup> century. (Mahinda Chinthanaya: vision for a New Sri Lanka – A Ten Year Horizon Development Framework 2006-2016, Pages 202-204).
- 1.2 Sri Lanka is a country with 103 rivers. Of these river basins, about 20 comes under perennial while the rest belonging to the category of seasonal rivers. The magnitude of the river basins varied depending on the extents which range from 10 to 10000 km<sup>2</sup>. Geographically, the extent of land belonging to river basins is about 90% of the total land area of Sri Lanka.
- 1.3 Though there are no large scale natural reservoirs in Sri Lanka, the country is rich with a number of manmade tanks and an irrigation canal system, some of those tanks had been constructed centuries back and had been rehabilitated to the present condition. By now, about 12,000 tanks have been spread in Dry Zone areas of which the extent ranges from 01 to 6500 hectares. However the most of those tanks are less than 300 hectares in extent.
- 1.4 The cascade system created by interconnection of several tanks in the Dry Zone area is also an important component in Sri Lanka's water resources conservation.
- 1.5 In addition to the water sources described above, a large number of springs is spread all over the island. For instances there are about 1544 such water sources in Nuwara Eliya district while 204 in Kandy district 319 in Kurunegala District, 210 in Monaragala district and 288 in Mathale district, have been reported and the number of water sources identified in the entire island is 3540.
- 1.6 In addition, the aquifers laying within the inner limestone layers in the dry zone areas of the country are prominent in Sri Lanka. These aquifers play a major role in fulfilling drinking and agricultural water requirement of the country.
- 1.7 In general, but widely considered the definition of the term "Water Sources" contains; not only the rivers, streams, reservoirs, and their catchments, springs and wet lands but also the glaziers, ice caps, atmospheric vapor, clouds and Tornados. However, three main components related to conservation and Protection of water sources in Sri

Lanka have been taken into account when formulating this Policy depending on its importance.

- (a) Micro catchments which include rivers and streams, their reservations and their spouts and flood plains of the rivers.
  - (b) Natural or manmade tanks and reservoirs and shallow lakes (villus), their reservations and “immediate catchments” of those tanks and irrigation canals and their reservations.
  - (c) Existing underground or surface springs or spouts or such sources which are potentially available for common use and necessary land extent to ensure their existence and protection.
- 1.8 The contribution of the catchments, source areas and reserves play a vital role in ensuring the sustainability of the water sources described above. Especially the micro- catchments in high altitudes by which the rivers are fed, tanks and catchments of reservoirs, reservations of rivers and streams and flood planes are the sources of water resources of Sri Lanka and also they are the sources that balance the flow regime and sustainable existence. Considering the utilization pattern of the country’s water resource, it appears that the protection of the above mentioned sources is a fundamental requirement for the sustainability of both the surface water bodies and ground water aquifers. For instance the capacity of the shallow aquifers in Kalpiytiya peninsular could have fulfilled the drinking water requirement of a large population. But such waters have been contaminated to a level which could not be purified due to the excess adding of chemical fertilizer, agro chemicals and insecticides to the soil. The adverse effects on land by population pressure and the use of land for various complex economic activities are being increased at an alarming rate day by day, which directly affect not only the existence of the water resources and their reservations but also the water quality.
- 1.9 The soil is polluted due to the excess use of chemical fertilizer in agricultural land use and high use of agro chemicals and pesticides which resulted in water pollution. It has already been reported that the water use for drinking purposes and for agriculture has been disturbed due to the pollution.
- 1.10 The catchment areas are being rapidly waned as a result of inappropriate constructions by unplanned clearing of the forest cover in micro catchment areas and improper cultivations. Due to this reason the annual flow regime of rivers and streams or their capacity reduction, causing a major problem of drinking water and scarcity of water for agriculture.

- 1.11 In spite of the above, excavation of soil, clay or sand and also mining in the lands reserved for rivers, streams and tanks and reservoirs have adversely affected the water resource at a greater extent.
- 1.12 Furthermore the capacity of the springs and water spouts with common use is being deteriorated and gradually being destroyed due to misuse of land.
- 1.13 Today Sri Lanka is badly experiencing the threat of silting in reservoirs which generate hydro power and supply irrigated water due to the clearance of catchment areas in high altitudes and poor water and soil conservation practices. For instance 38 percent of the capacity of Rantambe reservoirs has been silted within 09 years of its construction while Polgolla and Rantambe reservoirs are being silted annually by 2.52% and 6.95% respectively.
- 1.14 Protection, conservation and sustainable existence of water sources, their reservations and catchments grant a great support not only to the country's socio – economic development but also to maintain the environment equilibrium and protect the bio diversity.

## **02. Strategies so far practiced in conserving and protecting water sources.**

- 2.1 Each and every successive government before and after independence had introduced various kinds of policies and laws pertaining to the conservation of Sri Lanka's water sources. National Policy on Watershed Management, National Land Use Policy, National Forest Policy, and National Environment Policy are some of such prominent policies.
- 2.2 In the laws passed since the year 1930, the laws pertaining to the water sources conservation have been included under various sectors namely land development, water and forest conservation and soil conservation etc. It appears that by now, the matters related to the water sources conservation is included in about 40 various legislations. However their implementation is in a lower stage which has also been affected by the lack of resources as well as a large number of various technical and institutional matters. On the other hand these enactments had been passed few decades ago which have therefore failed to grant legal provision as to give firm solutions to the problems arisen at present.
- 2.3 Though there are number of institutions involved in various activities related to the conservation of water sources they are not properly conserved and protected due to the dearth of human and physical resources, various institutional as well as technological factors and improper exchange of spatial data related to this. Though some foreign funded projects were launched for the conservation of catchment areas,

their objectives could not be achieved as they are not carried out after the prescribed project period. Therefore, preparation of an appropriate programme for the sustainable management of water sources and their reserves and catchments has become a timely requirement. It would not only be a sustainable programme for the sustainable agricultural development and fulfilling the future drinking water requirement but also be a fruitful strategy in achieving the country's new economic policies and objectives.

2.4 The Parliamentary Consultative Committee of the Ministry of Land and Land Development appointed a subcommittee on 07.02.2013 with the leadership of the Hon. Deputy Minister of Land and Land Development to investigate and report this matter conducting 06 sessions and 02 workshops with the participation of the several Institutions has identified 08 main issues / obstacles pertaining to this matter.

2.5 Main issues / obstacles Identified

2.5.1 The boundaries of the areas with water sources, reserves of water ways, catchments of the reservoirs / tanks have not been identified and marked physically on the ground.

2.5.2 Issues in the present laws, rules and regulations

2.5.3 Institutional problems regarding the conservation of water sources.

2.5.4 Misuse of land allied to the areas related to water sources, reserves of water ways and catchments of reservoirs / tanks.

2.5.5 Encroachments made for various activities related to the areas described above.

2.5.6 Lack of public participation in protecting the areas related to the water sources.

2.5.7 Unavailability of sufficient resources with authorities concerned to take necessary action to conserve the areas related to water sources, reserves of water ways and catchment of reservoirs / tanks.

2.5.8 Lack of information / data on the activities take place at present in the areas described above.

The concurrence of the subject related experts was obtained on subject matters as to grant permanent solutions to the problems discussed above and this policy has been formulated on that context.

### **03. Policy Vision**

“Water Resource for the Future Generation”

## **04. Policy Goal**

The primary intention of this policy is to ensure the protection and conservation of all the water sources and their source areas in Sri Lanka through an optimum management.

## **05. Policy Objective**

The main objective of this policy is to protect and conserve all the water sources their reserves and closest catchment areas to ensure the existence of the water sources in Sri Lanka.

## **06. Policy Elements**

- 6.1 When it is generally considered, water is not a scarce resource in Sri Lanka. But not only the unequal geographical distribution of water resources, the fluctuations in the rainfall pattern but also the inequality of water use have caused water a scarce resource while granting a high economic value. Accordingly, if the sustainable existence of water is not ensured, it would result in social, economic as well as environmental adverse effects, though it is “a resource not ended by use.”
- 6.2 Therefore this policy on protection and conservation of water resources has been formulated based on the below mentioned principles.
  - 6.2.1 All the water sources would be treated as a public natural resource belonging to Sri Lanka.
  - 6.2.2 The public has the right to receive and consume clean and quality water for the well being of the human being as well as the environment.
  - 6.2.3 The role of all the communities and responsible agencies shall be to ensure sustainable existence of the water resource with common Public Consumption as well as in all sorts of other uses.
  - 6.2.4 The common responsibility of each and every citizen shall be to protect and conserve the water sources and their source areas for the future protection and preserving the quality of the water resource.
  - 6.2.5 Water sources and their source areas shall be protected and conserved without considering their location or the ownership. Conservation strategies and mechanisms shall be prepared based on the nature of the ownership.
  - 6.2.6 Water users of all levels, planners and the decision making personnel and institutions shall contribute for the protection conservation and management of water sources with Participatory Planning Approach.

## **07. Policies**

It appears that the nature of implementing the policy matters in achieving the objectives envisaged in this policy has been connected with various subjects. Accordingly the entire policy is presented under the following areas.

- 7.1 Identifying, demarcating boundaries, protection and conservation of water sources.
- 7.2 Empowering the institutions related to the conservation and protection of water sources.
- 7.3 Monitoring of activities and follow up action.
- 7.4 Awareness and participation.
- 7.5 Granting financial provision and facilities.

The policies pertaining to the 05 areas given above are as follows.

## **08. Policies for the identification, demarcating of boundaries, conservation and protection of water sources and related areas.**

- 8.1 Determine and demarcate the limits / boundaries of water sources and their catchments and legally declaration of such areas.
- 8.2 Conserve the lands in the areas demarcated as water sources and their catchments and related reservations regardless of the ownership of such lands.
- 8.3 Avoid inappropriate use of land in the areas related to water sources through the preparation of land use plans.
- 8.4 Rehabilitate the degraded lands in the areas related to water sources.
- 8.5 Identify amendments needed in existing laws and legislations and introduce new laws with regard to the protection of the areas related to water sources, if necessary.
- 8.6 Pay attention on protection and conservation of the areas related to water sources when preparing all the development plans including regional development plans.
- 8.7 Encourage land use patterns suitable for environmentally sensitive areas and the lands over 5000 feet above the sea level for the protection and conservation of the areas related to water sources.

- 8.8 Not to release the state lands in the areas related to water sources for any purpose other than the protection of such lands.
- 8.9 Follow a holistic approach for the management of areas related to water sources.

## **09. Policies for the strengthening of Institutions**

- 9.1 Identify the institutions which contribute directly or indirectly for the protection and conservation of the areas related to the water sources.
- 9.2 Develop human and physical resources in such institutions enabling the implementation of the policy.
- 9.3 Establish a National Level Operational Committee comprising the subject related experts for decision making on protection, conservation and management of the areas related to the water sources.

## **10. Policies on monitoring and follow up action.**

- 10.1 Establish an “Early Warning System” to provide early information to relevant authorities pertaining to unauthorized activities in the areas related to water sources.
- 10.2 Establish a follow-up mechanism to monitor all the activities pertaining to protection and conservation of the areas related to water sources.
- 10.3 Test the capacity and condition of water in the reservoirs and their source areas.
- 10.4 Develop a data base to facilitate the protection and conservation of the areas related to water sources and connect it with the data base stated in the Cabinet Memorandum submitted by the Minister of Land and Land Development on 07.08.2013 regarding “setting up a formal National Program for the Common Use and Sharing of Spatial Data and Information”.
- 10.5 Sharing data and information on protection, conservation and management of water sources through the District Secretariat, Divisional Secretariat and Local Authorities and other institutions concerned.

## **11. Policies related to awareness and participation.**

- 11.1 Encourage the stakeholders and the community participation on the protection and conservation of the areas related to water sources.

- 11.2 Take action to educate all the stakeholders and students including the General Public on the importance of protection and conservation of the areas related to water sources.
- 11.3 Take action to use indigenous knowledge and methods to protect and conserve the areas related to water sources.
- 11.4 Encourage the private sector participation in protection and conservation of the areas related to water sources.

## **12. Policies on the funding mechanism**

- 12.1 Allocate required financial provisions to all the public institutions concerned for the protection and conservation of the areas related to water sources from the National Budget, funds of the Provincial Councils and the funds of the local government.
- 12.2 Take action to allocate a part of the funds utilizes for water related projects implemented under state financial allocations and private funds for the protection and conservation of the areas related to water sources.

## **13. Operational Mechanism**

- 13.1 When the matters stipulated above in this policy are analyzed the responsibility of implementing this policy would be entrusted with a number of institutions under a several subject areas. Mainly the institutions related to the subjects such as land, water resources, irrigation, Mahawali, Agriculture Agrarian Development, Wild Life and Forest Conservation, Environment and Education are the pioneering institutions in implementing this policy. In addition provincial, distract and divisional administration and all the subject related institutional structured connected with the subject are the main stakeholders in implementing this policy. Also, the Land Use Policy Planning Development falling under the purview of the Ministry of Land and Land Development will function as the coordinating institute in implementing this policy. An Operational Committee comprising the institutions mentioned bellow will be implemented under the coordination of the Land Use Policy Planning Department and the said departments will be considered as the Implementing Agencies.
  - Ministry of Land and Land Development
  - Ministry of Environment and Renewable Energy
  - Ministry of Plantation Industries
  - Land Use Policy Planning Department
  - Land Commissioner General's Department
  - Survey Department

- Water Board
- National Water Supply and Drainage Board
- Department of Agrarian Development
- Department of Irrigation
- Department of Agriculture
- Central Environment Authority
- Department of Wildlife Conservation
- Department of Forest Conservation
- Mahawali Authority of Sri Lanka
- National Institute of Education

#### **14. Terms of References of the Operational Committee/ National Expert Committee**

The Operational Committee mentioned above will be entrusted with the under mentioned “Terms of References” (TOR) to ensure the effective and efficient implementation of this policy.

- 14.1 Identify all sort of water sources springs and rivers, reserves of streams and the reserves of the reservoirs and demarcate them in maps.
- 14.2 Develop a data base, based on such data and distribute such information to the institutions concerned.
- 14.3 Surveying and mapping the location of the water sources, springs and their reservations and the reservations of the rivers and streams which are to be protected and conserved.
- 14.4 Declare the water sources, springs and their reservations that are to be protected and conserved as reserves of rivers and springs.
- 14.5 Take action to evacuate the present encroachments and uses of the reserves of rivers springs and reservoir through adopting the existing laws.
- 14.6 Draft new laws and a new National Policy which would be required pertaining to the conservation and protection of rivers, springs and reserves and other water sources.
- 14.7 Prepare land use plans for all sort of water sources, spouts and reserves of the rivers and springs and their source areas.
- 14.8 Prepare and implement media programmes, curricular development, awareness and educational programmes on conservation of water sources.