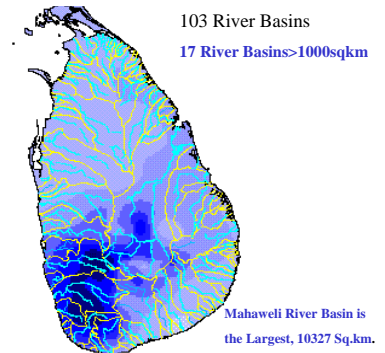


Annex 2. Background of Mahaweli River Development Project

1.1 Sri Lanka - Overview

Sri Lanka is a tropical island situated in the Indian Ocean with a total land area of 65,525 km². Its rainfall feeds a radial network of rivers that begin in the highlands in the Central part. Some 103 distinct rivers cover about 59,217 Sq. km. of their basins. Large percentage of water resources in these basins are mainly used for irrigated agriculture (We may mention the approximate percentage to make it specific) and hydropower generation. Current population is estimated to be around 19 million and it is projected to be stabilized at 22 million by 2025.



Vital Statistics

Land Extent	65,000 sq. km
River Basins	103
Rainfall Received Annually	500 – 5000 mm (12 m. ha. Meters of water)
Evaporation Loss	50% of Rainfall
Seepage Loss	20% of Rainfall
Available as Stream Flow	30% of Rainfall

1.2 Historical Perspective of Water Resource Management

Sri Lanka is a country with a long history of hydraulic civilization, which had been developed along the main river basins of the country. Early settlers began developing their network of irrigation systems in the main river basins around 5th Century B.C. Some of the major basins developed by them were; Malwathu, Mahaweli, Deduru, Kelani, Kalu, Walawe, Kirindi, Menik and Kumbukkan. Many of these rivers originate in the central highlands and flow towards plateaus in other parts of the country providing opportunities for irrigated agriculture. This geographical situation helped the early settlers to conserve the watersheds in the highlands and to develop plateaus in agriculture by storing water in a network of reservoirs.

This system of optimum use of water is well expressed in the popular dictum by the King Parakramabahu (AD 1153) that "not a single drop of water received from the rain should be allowed to escape into the sea without being utilized for human benefit".

1.3 Sectoral Approach

During the early part of 20th Century, a programme for restoration of ancient irrigation works located in the dry zone was launched under the British rule and continued after gaining independence in 1949. People were resettled in these areas with a view to developing agriculture basically to achieve food security, employment and socio-

economic development objectives of the country. At present responsibility for water resource management is fragmented and entrusted to different government agencies viz. Irrigation Department, Ceylon Electricity Board, National Water Supply and Drainage Board AND Water Resources Board.

These institutions were established with single-purpose mandates, which could be seen as parts of highly fragmented sectoral approach towards service deliveries with no relationship to integrated water resource management. Each agency is mandated to develop their own water sources extracting from either rivers, streams or groundwater in catering to the service delivery functions in respect of irrigation, hydro-power, domestic water supply etc.

1.4 Multi-Purpose Area Based Development

Having realized the limitations of sectoral approaches to development, the government of Sri Lanka introduced an area based, multipurpose Mahaweli Development Programme with an integrated approach to development. The Mahaweli Development Master Plan which was prepared for stepwise implementation over a period of 30 years had been revised under the Accelerated Mahaweli Development Programme in 1977. Accordingly the period of implementation was reduced to 6 years. Major components of the programme were; providing irrigation facilities for dry zone agriculture, generation of hydro-electric power, settlement of displaced and landless families by providing required physical and social infrastructure for human habitation, providing marketing facilities for agricultural produce and social facilities for sports, cultural and religious purposes.

1.5 Water Resources Management Practices in Mahaweli Areas

The Mahaweli basin is the largest river basin of Sri Lanka covering an area of over 10,000 Sq. Km. and representing one –sixth of the size of Sri Lanka and contributing towards multi-purpose development objectives as listed below:

- Highest provider of irrigation water
- Substantial hydro-power generation
- Meeting other water needs of townships and
- Claiming for large part of natural resource base of Sri Lanka
- And providing shelter for large section of the population

The Mahaweli basin covers a land area cutting across five provinces, nine districts and fifty seven Divisional Secretary Divisions with an average population of 2.8 million that represents 15% of the country's population. The Mahaweli waters have also fed adjacent river basins that had resolved major water scarce issues relating to irrigation while addressing domestic water supply demands to a limited extent. Development of the water and land resources have been undertaken in several special areas in the Mahaweli Basin and adjacent basins by Mahaweli Authority of Sri Lanka (MASL) mainly to cater for irrigation settlements and hydro-power generation and currently engaged in management of natural resources within the developed areas, while providing settler services. MASL

has also been involved in similar development and management activities in Walawe basin. MASL has served as a river basin management and development agency catering to water delivery services of majority water users located in major irrigation systems, while following integrated approaches for socio-economic development of the settler population.

The finances for water resources development is mobilized mainly through government and donor agencies while operation and maintenance costs are borne by the water users (this is a misleading statement- substantial portion of O&M cost is borne by the Government not by the users). . In rehabilitation of irrigation schemes, part of the costs up to 10% to 20% are borne by the irrigation farmers, depending on the nature of the work involved. In many instances water users are providing the labor contribution of rehabilitation, operation and maintenance of irrigation canals at tertiary level. In case of water supply projects, part of the construction costs is borne by the water user beneficiaries. In all irrigation schemes, farmers are formed into Field Channel Groups and Distributary Canal Farmer Organizations that are responsible for operation and maintenance of respective canals systems. In all Mahaweli based schemes, Project Management Committees and sub-committees are functional while Farmer Federations and Farmer Companies have been activated in some areas that would lead farmers to extend their water management responsibility to improve productivity and farmer incomes through enhanced negotiation processes through state supported empowerment programs.

1.6 Mandate of the Mahaweli Authority of Sri Lanka

The MASL is mandated to develop water resources in Mahaweli or any other river for development of special areas in providing water for meeting multi-purpose objectives such as irrigation schemes, hydro-power generation, township development etc. It is also entrusted with the responsibility of providing settler services in special areas declared for development of irrigation settlements viz. land administration, agricultural extension, community services, human resources development in the form of farmer empowerment for participatory management of irrigation schemes etc. It has been designed to take up an integrated approach for development and management of special areas with powers to provide settler services and managing the water for irrigation and water supply services under one roof. The MASL has been involved in construction of large dams and reservoirs, trans-basin diversion of water through large canals and tunnels for downstream water users in the dry zone of Sri Lanka following integrated approaches using inter-disciplinary teams as an efficient means to develop remote areas. The total number of reservoirs that were constructed and rehabilitated was 10 with a capacity of 2670 MCM while length of the main canals and branch canals were 370 km. and 350 km. respectively. The length of Distributary canals and Field channels were 2135 km. and 5304 km. respectively. The total land extent that was subjected to development was 467,584 Ha. While the number of settlers benefited from the Accelerated Mahaweli Ganga Development Scheme was 128,568. Several irrigation settlements were developed namely System H, B, C, G, L, and Uda Walawe.