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The post-2015 development agenda

Sri Lanka stakeholder perspectives on a water goal and its implementation

Global Water Partnership

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Contents

1 Preamble

Sri Lanka is located close to the equator and experiences a tropical monsoon climate. The total area of Sri Lanka is 65,610 km^2, which provides a home for about 21 million people. Although projections vary, it is predicted that the population will reach 23 million in 2030.

The annual average rainfall is 1,861 mm (1961-90). High spatial and temporal variability of rainfall has been observed and two thirds of the land is designated as the dry zone, where the annual average rainfall is 1,400mm. Annual renewable water resources of Sri Lanka are estimated at 45 million cubic meters. Accordingly, the present per capita water availability is about 2,150 cubic meters per year, which would reduce to 1,950 cubic meters per year in 2030. These values imply that the country will not face water scarcity at national level in the immediate future. It is estimated that about 30-35% of the annual water resources are developed out of which 85% is used for irrigation, 5% for drinking and sanitation and the balance for industries and other uses. Out of about 1.9 million ha of cropped land in Sri Lanka, 620,000 ha is irrigated, which accounts for more than 80% of total paddy production.

A rapid increase in the demand for good quality water has been observed in the recent times. Safe drinking water coverage in the country has exceeded 90% of the population at present, with 44% of the people having access to pipe-borne water. Improved sanitation coverage exceeds 90% of the population.

2 Comments on recommended SD Goal and Targets for water

2.1 The recommended Goal and Targets in relation to local development aims

Sri Lanka is a country where water plays a key role in social development and economic growth. Therefore, it was agreed that recommended goal for water is very relevant in the Sri Lankan context. Regarding the targets, the following matters were discussed:

a) The country has made substantial gains in providing safe drinking water and adequate sanitation. However, there are regional disparities with regard to the coverage. Emerging water quality issues such as fecal contamination and chemical pollution due to the presence of iron, fluorides, hardness, and nitrates, and algae threaten the sustainability of the achievements. Key national institutions have already planned to provide universal access to safe drinking water and sanitation by 2020.

b) Considering the threats posed by climate change and social discontent in the under-served areas, further effort in water resources development and management are necessary. The national development plans have already formulated projects targeting beyond 2020.

c) The importance of highly integrated governance support for all the water resources development and management activities was noted. National level coordination mechanisms in the field of water management require strengthening. The legislation for water needs to be reviewed and updated to facilitate Integrated Water Resources Management (IWRM).

   The national policies have given high importance to adopt advanced and modern water management techniques and watershed management, with active participation of the stakeholders, and accompanied institutional development.

d) The urgent need for improvement to waste water management was noted. Although improved sanitation is practiced by about 94% of the population, low piped sewer coverage (among others) is not keeping up with the increasing population and urbanization.

   Environmental regulations control the pollution from new industries to a certain extent, but there is concern over the industries located outside the designated industrial zones. Considering the amount of water used, heavy use of agricultural chemicals and difficulties to monitor pollutant ingress, agricultural waste water management is also a major concern.

e) Despite commendable advances in policy-making, strategy formulation and implementation water-related disasters such as floods, droughts, landslides and cyclones are still affecting the life and livelihoods of the people. The government development policies have accorded the required priority for managing the water related disasters.

Considering the above mentioned issues, the participants at the National Consultation agreed that the recommended targets under the Goal for Water are in line with current government policies and strategies for water resources development and management.

2.2 Consideration of the approach for target setting and any country specific issues related to the targets and elements to the targets to enable countries to set its level of ambition according to local circumstances

The country specific issues related to the targets, which influence the approach to target setting, are as follows:

2.2.1 A. With respect to Drinking water supply and sanitation

MDG targets have already been achieved. However, country-specific issues include the following:

- Rural water supply schemes are primarily managed by the Community-based organizations (CBO). Their capacity to manage the water quality and the protect water source is limited. Action has to be taken to improve the capacity of CBOs. In addition innovative financing strategies and improved capacity in local authorities that manage the CBOs, need strengthening. The development activities taking place in the country invariably absorb most of these systems into the national water supply systems.
- It was noted that provision of latrines alone is not sufficient to provide sanitation. Adequate awareness and water supply are needed to ensure their use. Rural water supply and sanitation programs that are being implemented include awareness programs for the beneficiaries to overcome this problem
- Connection between sanitation and hygiene was noted. Where there is no water in close proximity, there is a tendency to practice open defecation, although this is rare in Sri Lanka now.
- Non –revenue water remains at a high value of about 29%, and extra effort is needed to bring this value down to an internationally accepted level
- The above mentioned issues have to be addressed in the approach to target setting.

2.2.2 B. Use and development of water resources

The government is committed to invest in water resources, as water scarcity is a major development constraint in the dry zone. Although the country has achieved self sufficiency in rice due to the heavy investment in water resources development, there are several areas and pockets where water is inadequate to meet the demand. In addition, climate change has adversely affected the timeliness and predictability of water supply. Improved water management and strategically planned water

resources development is necessary to address the emerging issues such as increasing demand for drinking water. It is planned to increase water diversion to the dry zone by 1000 million cubic meters by 2025.

Hydropower is the major, indigenous, renewable energy source in the country. Therefore, the full potential of hydropower has to be achieved in an environmentally sustainable manner. Including mini hydro, there is an installed hydropower capacity of 1,600 MW with a probable increase of 600 MW.

The government is also committed to maintain bio diversity and increasing the forest cover which has reduced over the years.

Environmental degradation of the watersheds is a threat to the sustainability of water resources. Therefore, protection and reforestation of watersheds of rivers is a priority.

Occasionally, maintaining forest cover and water resources development plans are in conflict. A strategic land use management plan has been suggested as a solution to avoid such conflicts, which is under consideration by concerned national agencies.

Being an island, sea level rise is a future challenge for the country. Salinity intrusion to water bodies is already a problem for surface and groundwater resources in the low-lying areas. Sustainable water resources and infrastructure development is the key to protect the fragile coastal water resources.

The immediate targets in water resources development include the currently planned and ongoing projects, many of which are multi-purpose.

- Sri Lanka has made considerable progress in the participatory management in irrigation through farmer organizations and in water supply through community based organizations. However, there is a need to revive some of the institutional arrangements at the policy making level, considering the need for water to be managed in an integrated manner.
- The policy and legislation framework has to be improved. Policy direction for water resources management is currently provided by national development policies and policies of the sub-sectors. Multitude of water-related legislation and inadequate coverage over key issues sometimes make regulation of water resources and integration of water resources management difficult.
- The need for capacity building to face the challenges arising from climate change, pollution and other challenges peculiar to Sri Lanka was discussed in detail. The need was stressed for formal and informal capacity building to develop a critical mass. The capacity building is required to increase the predictability of water related phenomena such as rainfall, floods and droughts. The national universities and national water management institutions need to cooperate in this matter. Capacity building should be given priority over the initial years of the SDG period.
- Water-related data need to be shared with the public to ensure the contribution of intellectuals, professionals and general public to water resources management.
- Irrigation, being the major water user, has to increase water use efficiency

The approach to target setting for improved water governance could include an assessment of current status of the policy, legal and institutional framework, and improving the current situation in a participatory manner.

Safe disposal of waste water is increasingly becoming prominent as a threat to the environment. Government has set up standards, rules and regulations to ensure safe disposal of industrial waste,

when setting up new industries. Industries coming up in designated industrial zones can be monitored comparatively easily. However, small scale industries outside such zones are difficult to monitor. Domestic and urban waste, including the effluent from hospitals, hotels and some public institutions, is similarly difficult to manage, due to weaknesses in the regulating mechanism. Observations have shown that over use of chemicals and fertilizer in agriculture is a grave concern, which pollutes both groundwater and surface water. Both the excessive use of agro-chemicals and excessive use of water for irrigation are cited as causative factors of environmental pollution and health hazards.

Therefore, an improved and continuous monitoring system supported by a suitable institutional mechanism will have a prominent place in the approach to target setting. In the agricultural sector, prohibition of harmful chemicals, adoption of eco-friendly agricultural practices including the use of organic fertilizer and traditional methods of pest control, and good water management that minimizes wastage will have a positive impact on water resources. New regulations necessitate the treatment and re-use of industrial waste water. Such measures should be reflected in the targets.

2.2.3 E. Reducing the mortality and economic loss from natural and human induced water-related disasters

Prevention and mitigation of impact due to water-related disasters is a cross-cutting issue that would influence the achievement and sustaining most of the other water targets. Since the Asian tsunami of 2004, the capacity of the country to cope with pre-disaster activities and prevention and mitigation measures have increased.

Programmes to mainstream Disaster Risk Reduction (DRR) into development sectors are ongoing. In public and private institutions, emergency response plans and business continuity plans are being promoted. Early warning techniques are being improved. Such actions should be reflected in target setting.

2.3 The relevance of the Goal, water targets, and indicators for the targets

The suggested water goal “Securing sustainable water for all” was accepted as a suitable and highly relevant goal for Sri Lanka to plan to achieve in the next 15 years.

It was pointed out that water has contributed to achieve several Millennium Development Goals, but the targets and indicators did not adequately reflect the contribution by water sector.

While accepting the defined targets as suitable, it was agreed that country level target values are more suitable, because the national development framework has already defined targets for several of the indicators. Some national targets are set for mid-term of the SDG period. More detailed consultation with stakeholder agencies is required to define target values for the end of SDG period.

2.3.1 Universal access to safe drinking water and sanitation

Sri Lanka has invested substantially to provide safe drinking water and sanitation in the recent times. As such, the country has been able to surpass the MDG targets already. It is planned to achieve 100% coverage in safe drinking water and adequate sanitation by 2020, 10 years in advance of the proposed global target. About 4% of the population do not use toilets, and this is targeted to be reduced to zero within the SDG period.

The suggested indicators for this goal were acceptable. It was noted that sanitation and water services need to be provided together, to make them more effective and to contribute towards

hygiene at home. Reduction of under-served areas, capacity building of CBOs and reducing non-revenue water are identified as desired country actions, achievement of which could reflect in the indicators.

2.3.2 Improving the sustainable use and development of water resources

Water resources development will be required to achieve several other targets under water goal such as access to safe drinking water, adequate sanitation and reducing the impacts of water-related disasters. It was noted that about 35% of water resources are developed. The target is to improve this to 50%. Considering the sustainability issues involved with this target, it was recommended to study the current volume of withdrawals, future needs and sustainable limits, in more detail.

It was noted that GDP alone cannot describe the contribution of agriculture to domestic food security. Nutritional value of food consumed by Sri Lankans is low, and it is planned to diversify crops, increase the production of vegetables and fruits, and increase livestock production to improve nutrition. As such, change in calorific and nutritional value of agricultural produce per water withdrawals, benchmarked over the years, was suggested as an additional or supporting indicator.

2.3.3 Water Governance and indicators

Proposed additional indicators include:

- Existence of a policy making level water-related coordination mechanism
- Percent professionals with post-graduate qualifications in water resources management and related fields
- Number of major river basins with basin management plans based on integrated water resources and natural resources management principles and appropriate institutional arrangement
- Percentage of institutions sharing major water resources data with the public Efficiency of water use in irrigation

Waste water management, pollution prevention and water quality management are important interventions in both urban and rural sectors. The current piped sewerage coverage is 2.3%, which is targeted to be increased to 7% in 2020 and expected to be about 12% in 2030.

The supporting indicators are suggested as:

- Percent area coverage by an improved and continuous monitoring system supported by a suitable institutional mechanism
- Percent area covered by an integrated water-pollution prevention mechanism
- Percent agricultural lands adopted eco-friendly agricultural practices
- Proportion of re-use of industrial waste water.

2.3.4 Target values and indicators for water-related disasters

The current mortality by water-related disasters is 5 per 100,000 persons. The target is to reduce it to zero in 2030. Awareness, preparedness and early-warning can contribute to achieve the targets. It was agreed that target setting for economic loss reduction is complicated and would require further analysis of data.

The participants were in general agreement with the proposed indicators. The following supporting indicators were proposed:

- Percent of the public sector and medium scale private sector institution equipped with emergency response and business continuity plans (target-95%)
- Mainstream DRR into major development sectors. in 2030
- Mainstream DRR into local authorities
- Introduce risk transferring mechanism to local authorities (target 75%)

3 Key implications and means of implementation identified for achieving the Goal and Targets over the period 2015-30

3.1 Capacity for achieving the Goal and Targets

Considerable degree of capacity building is required by Sri Lanka to secure sustainable access to water for all. Some of the vital areas for building capacity include:

- Innovative, eco-friendly infrastructure development
- Improving the predictability of rainfall and water-related disasters
- Policy formulation
- Human resource development

3.2 Costs

The participants agreed that the achievement of several targets such as those of water resources development, piped sewerage facilities and disaster-resilient infrastructure are heavily capital intensive and would require substantial external support. As some water-related investments such as hydropower, health and hygiene are expected to be addressed under different SDG themes, they were not addressed under this National Consultation.

It was further noted that several targets under water goal are expected to be achieved mid-way through the SDG period.

As such, though investments could be heavy in the first half, they are expected to taper off and stabilize towards the end of the SDG period. Accordingly, the projected expenditure under main water subsectors for the period of 2015-30 is as follows:

Drinking Water supply and sanitation	- US$ 4.0 billion
Sewerage and waste water management	- US$ 2.6 billion
Water Resources Development	- US$ 10.0 billion
Water-related disaster management	- US$ 500 million

3.3 Institutions

Institution building is especially required at the community level. As a large number of community organizations could reduce the participation of members, the community based institutions are recommended to be for multiple water uses, where ever possible. In the case of policy level institutions, the institutional framework would constitute a sustainable coordinating mechanism.

3.4 Infrastructure

Water infrastructure will play a major role in mitigating the impacts of climate change and providing access to water in under-served areas. The government plans to increase the per-capita water

storage from 395 cubic meters/capita to about 500 cubic meters/capita. The planned activities include trans-basin and inter-regional water transfers. In addition, infrastructure facilities for drainage water improvement and salinity exclusion are planned, especially in the coastal areas. The plans would require heavy inputs by both local and foreign technologists.

3.5 Monitoring

Monitoring could be improved by the participatory approach and community empowerment. Lessons from success stories about community-based monitoring should be useful. In addition, considerable institutional strengthening in the national institutions and local-government institutions is required. Private sector participation in monitoring is very important. In this regard, plantation companies contribute to recording of meteorological data, and such practices could be encouraged. Laboratory facilities can help build the capacity of monitoring by both public and private sector.

3.6 Any other issues

An issue which the participants felt as not received adequate attention is technology transfer. This matter can be addressed at global and regional level. Leading research institutes and universities need to cooperate in this issue and they would require funds and resources for effective technology transfer, based on the national requirement of each country.

4 Concluding comments specific to the country

There was unanimous agreement that a national consultation is the most appropriate method to ensure that national concerns are addressed in the post 2015 development agenda. Sri Lanka is a rapidly developing country with comparatively high GDP per capita and high level of human development. The spatial differences in development have a distinct linkage to water availability. As such, national development plans for the next several years have a focus on water. A dedicated global goal for water been defined by the UN is complementary to the national priorities and has given the country an opportunity to make a meaningful contribution to the post 2015 development agenda. The national institutions dealing with water are expected to set specific values to the targets and work towards achieving sustainable development.

Annex 1: Agenda

National Consultation on a UN- Post 2015 Development Agenda for Water Ministry of Irrigation and Water Resources Management & Sri Lanka Water Partnership

24th March 2014 - Salon Orchid, Hotel Galadari. Colombo Programme

08.30 - 09.00	Registration
09.00-10-15	Inaugural Session
09.10 - 09.25	Address by Eng. Ivan De Silva, Secretary, Ministry of Irrigation and Water Resources Management
09.25 - 09.40	Address by Mr. A. Abeygunasekera, Secretary, Ministry of Water Supply and Drainage.
09.40 - 09.55	Address by Ms. Kusum Athukorala, Chair, Sri Lanka Water Partnership.Break
09.55 - 10.15	Tea Break
10.15 – 12.00	Technical Session 1. (Session Chair – Eng. Ivan De Silva)
10.15 - 10.45	Keynote Address. Water Challenges and Sustainable Development- Post 2015. Dr B M S Batagoda, Deputy Secretary to the Treasury
10 45 - 11.30	Position of water sector with respect to MDG's and possible SDG goals and targets (2015-2030) - Eng Upali Imbulana, Consultant, Mahaweli Consultancy Bureau, Ministry of Irrigation and Water Resources Management.
11.30 - 12.00	Discussion.
12.00 – 15.45	Group Work
12.00 - 13.00	(Break- Out Group Sessions) 3 Groups of participants based on themes, goals and targets.
13.00 - 14.00	Lunch
14.00 - 15.30	(Breakout Groups Continue)
15.30 - 15.45	Tea Break
15.45 - 17.15	Technical Session 2. (Session Chair – Prof. Nimal Gunawardene)
15.45 - 16.15	Group Recommendations.
16.15 - 16.40	Discussions (Plenary)
16.40 – 16.50	Comments by Session Chair.
16.50 - 17.05	Rapporteurs Report
17.05 - 17.15	Concluding Remarks – Secretary, Ministry of Irrigation & Water Resources Management
17.15	Conclusion

Annex 2: List of Participants

Full Name	Organisation	Position
Aheeyar Mr. M.M.M.	Hector Kobbekaduwa Agrarian Research and Training Institute	Head, Environmental and Water Resources Management
Athukorala Ms. Kusum	Sri Lanka Water Partnership	Chair
Balasuriya Eng. B. W. R.	National Water Supply & Drainage Board	General Manager
Bandara Dr. Palitha	Asian Development Bank	Senior Project Officer (Environment)
Bandara Eng. Thilakaratne	Irrigation Department	Additional Director General
Batagoda Dr. S.	Ministry of Finance	Deputy Secretary to the Treasury
Dassanaike Mr. Lalith	GWP South Asia	Regional Council Member
De Silva K.W. Eng. Ivan	Ministry of Irrigation & Water Resources Management	Secretary
Dissanayake Mr. Ishan	BRANDIX Lanka Ltd	Senior Executive, Corporate Social Responsibility
Elakanda Eng. D.C.S.	Dam Safety and Water Resources Planning Project	Project Director
Ethugala Ms. Chandrika	Irrigation Management Division	Director
George Eng. R. S. C.	National Water Supply & Drainage Board	Additional General Manager (Policy & Planning)
Godigamuwa Mr. Keerthi	Ceylon Electricity Board	DGM Corporate Strategy
Gunasekera Mrs. Lakshmi	Ministry of Justice	Additional Secretary Legal
Gunathilaka Ms. Badra	Department of Census and Statistics	Statistical Officer, Research Division
Gunawardena Prof. Nimal	University of Peradeniya	Senior Professor
Imbulana Eng. Upali		Consultant
Jayasiriwardena Eng. D.S.D.	National Water Supply & Drainage Board	Additional General Manager
Jayathilake Mr. H.M	Ministry of Irrigation & Water Resources Management	Technical Advisor
Kamaladasa Eng. Badra	Irrigation Department	Director General
Karunarathne Mr. A.D.G.L	Central Environmental Authority	Assistant Director, NRM and Monitoring
Karunaratna Ms. Isurika	Ministry of External Affairs	Assistant Director
Kumara Eng. N.A. Sisira	Ministry of Irrigation & Water Resources Management	Additional Secretary, Water Recourse Planning
Majeed Eng. Y. Abdul	Irrigation Department	Additional Director General
Manthritilake Dr. H.	International Water Management Institute	Head, Sri Lanka Development Initiative
Medhani Eng. J	Irrigation Department	Irrigation Engineer
Meegastenne Eng. Janakie	Irrigation Department	Director
Mowjood Dr. M.I.M.	CAPNET	CAPNET Coordinator
Mullegamgoda Eng. Kithsiri	Ministry of Irrigation & Water Resources Management	Consultant
Navaratne Prof. Champa	University of Ruhuna	Professor in Agriculture
Perera Mr. G.T.K. Sampath	Department of Census and Statistics	Senior Statistician
Rajapaksha Mr. R.R.G.R	Water Resources Board	Project Manager
Ratnayake Eng. R.M.W.	Ministry of Irrigation & Water Resources Management	Director, Water Resources Planning
Ratnayake Mr. Ranjith	Sri Lanka Water Partnership	Country Coordinator
Roonage Mr. M.A.	Department of Agriculture	Additional Director

Full Name	Organisation	Position
Seneviratne Ms. Anoja	Disaster Management Centre	Deputy Director
Sumanasekera Ms. L.U.N.	Ministry of Agriculture	Director (Agriculture Technology)
Suraweera Dr. Inoka	Ministry of Health	Consultant, Community Physician Environmental and Occupational Health
Wijesekera Prof. Sohan	University of Moratuwa	Senior Professor of Civil Engineering

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