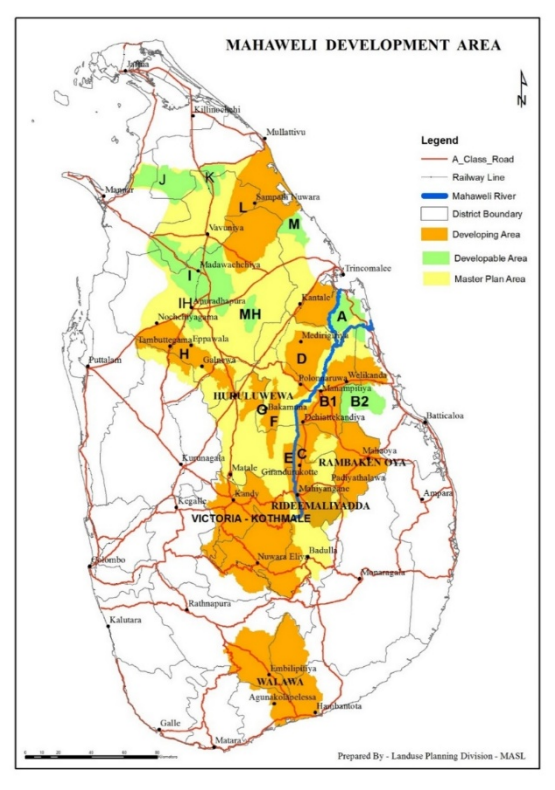
MAHAWELI AUTHORITY OF SRI LANKA



- Sarath Chandrasiri Vithana
- Director General
- Mahaweli Authority of Sri Lanka

11th GEOSS Asia-Pacific Symposium - Kyoto, Japan, 24 - 26 October 2018

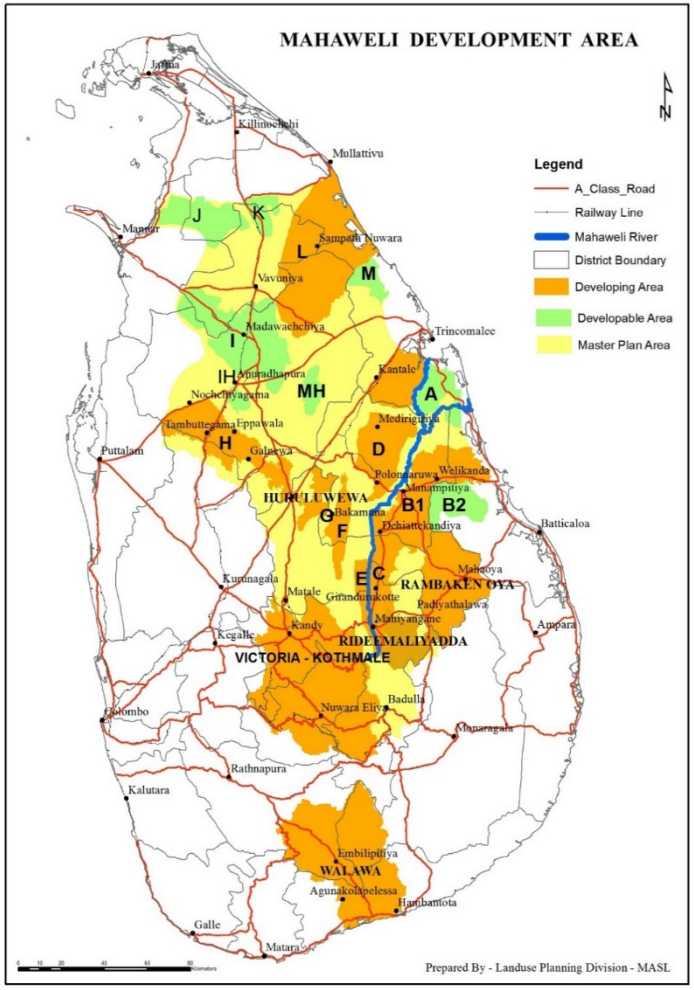
Mahaweli Authority of Sri Lanka

(Established under the Act No. 23 of 1979

The Mahaweli River Development Programme is the largest multi-purpose, integrated rural development programme ever undertaken in Sri Lanka

Objectives

- To increase agricultural production & ensure food safety
- Fulfill the National energy demand by Hydro-power generation
- Reduce Unemployment and Social Unrest
- Settlement for landless poor
- Flood control in Downstream



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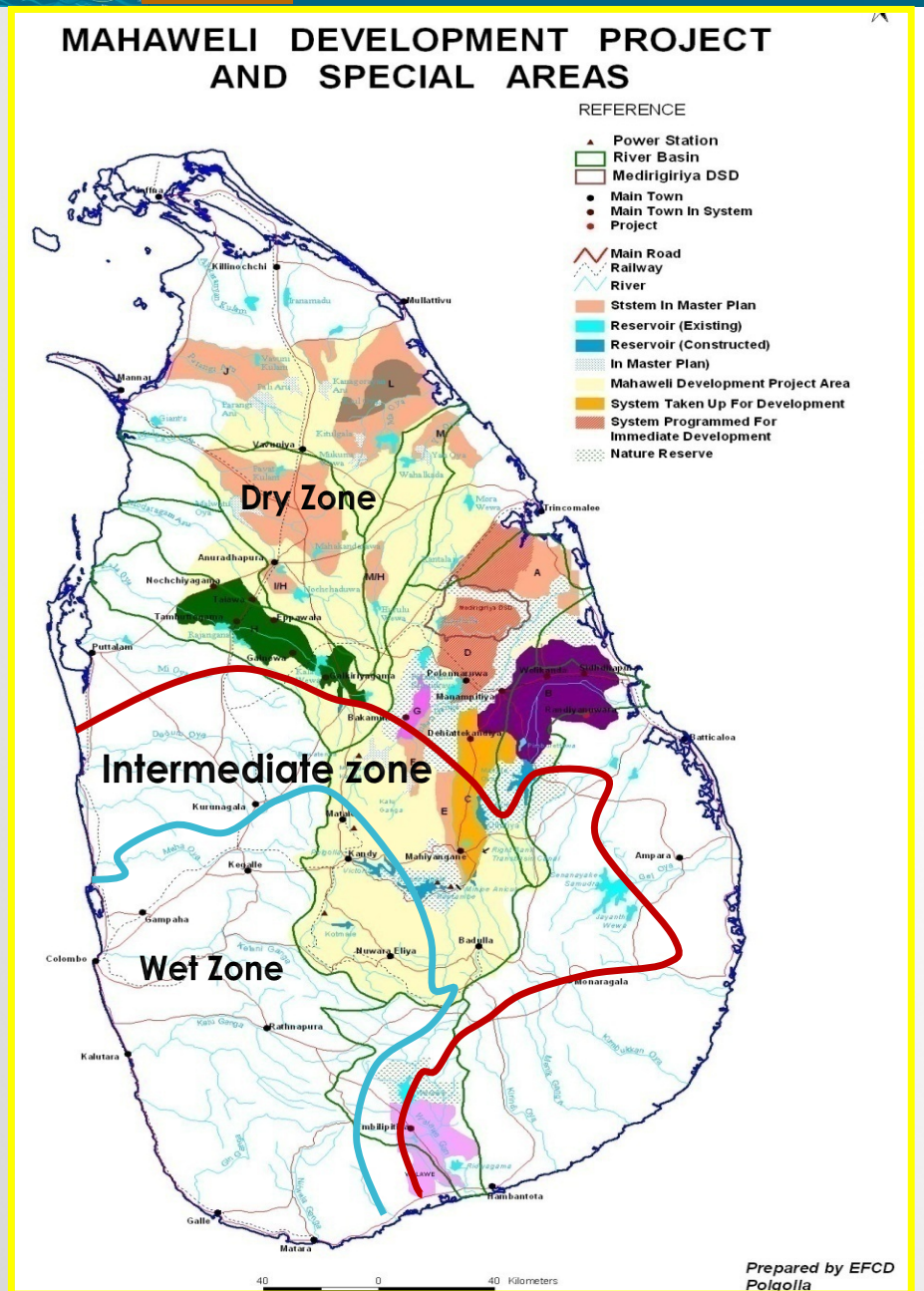


MAHAWELI DEVELOPMENT PROGRAMME (Gross Area)

40% of
The Island

57% of
The Dry Zone

MAHAWELI AUTHORITY OF SRI LANKA

- Mahaweli Authority responsible for manage over 100,000 ha of irrigated paddy lands and provide settlement nearly 360,000 families including 162,000 farmer families **which produce 25% of national paddy production**

- in recent years we **experienced longer dry periods in Sri Lanka** particularly in the dry zone in Yala season.

- As Multi decilplinaery **organization mainly work with Water and agriculture**, **MASL has high risk to the Climate change impacts** specially the drought.

- So, Its much important to **identify and prepare for the drought situation** before it affect the peoples livelihoods.

Agriculture Drought can be Identify by

- Low inflow
- Insufficient storage
- Cultivation Area reduction (due to water deficiency)
- Crop losses
- rainfall variation

1. EARLY WARNING: DROUGHT

Current Missions/Tasks/Activities

- Monitoring of river and reservoirs water levels.
- Publish water levels to the public and other relevant agencies.
- Water planning Forum with all stakeholders
- Measuring meteorological information in Mahaweli region

Further Expected Information

- Enhanced access to real time space-based data relevant to drought
- New science and technology in Identification of significant drought events and early warning systems
- New technologies in Public awareness

Further Expected Value

- Capacity building in early warning, preparedness and response
- provide access to satellite based Monitoring system and Specialized training.

2. ADAPTATION PLANNING: Drought

Current Missions/Tasks/Activities

- Quantification of Availability of water in reservoir & inflow prediction using past data
- Development of Surface water storage and distribution
- Selection of cultivable crop type & extent(use low water demand crops)
- Changing Method of practice (group sharing methods “Bethma”, Drip irrigation methods.

Further Expected Information

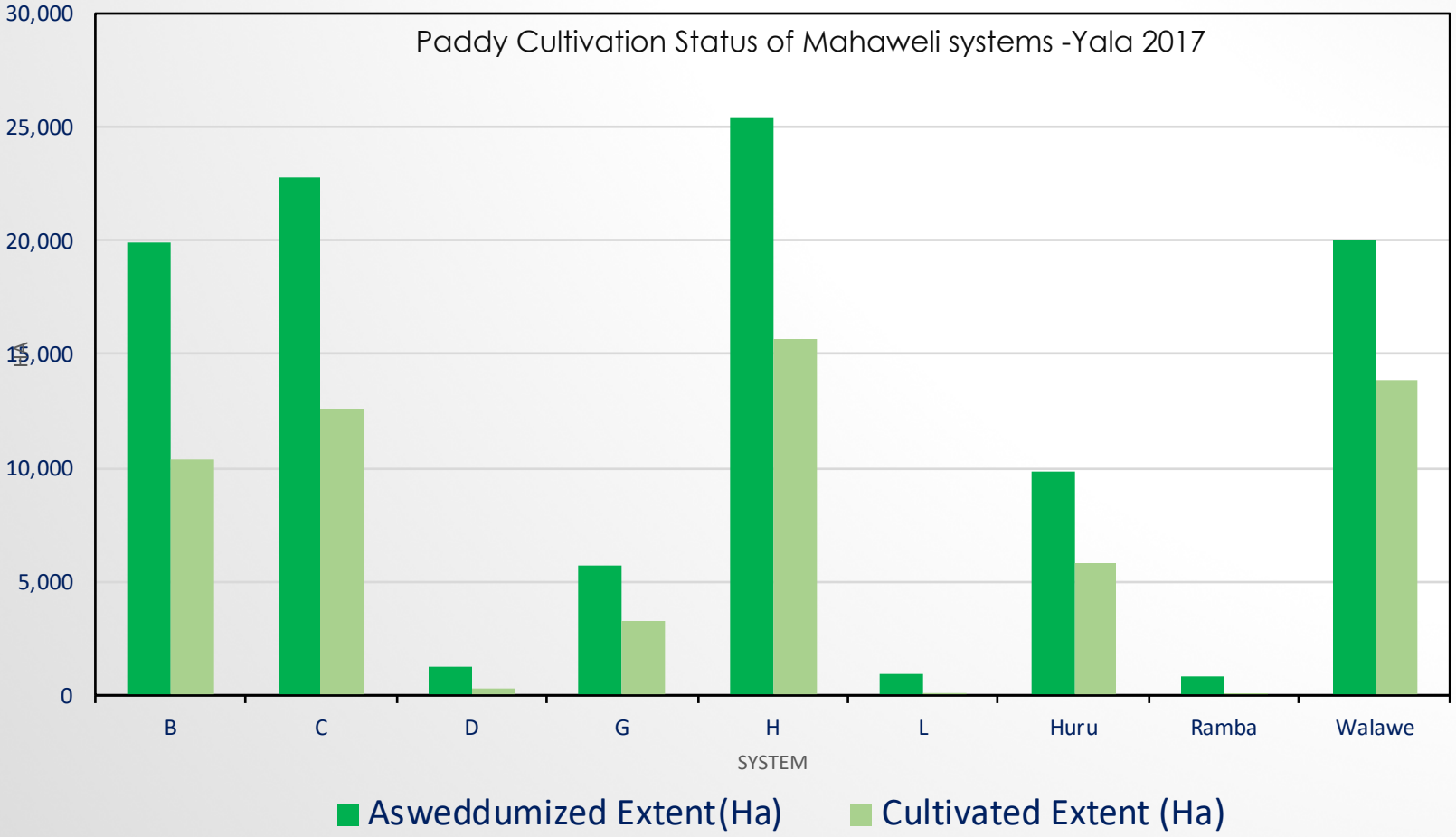
- Models for Disaster Risk Reduction in agriculture
- Develop vulnerability and forecasting damage assessments
- Sharing of Good Practices in Drought Risk Management (Success stories from other countries)

Further Expected Value

- Assistant for plan and implement of additional storages, diversions and pre assessment of shortages
- New technologies for demand side management (Increase water productivity)
- Develop drought tolerable crop varieties.

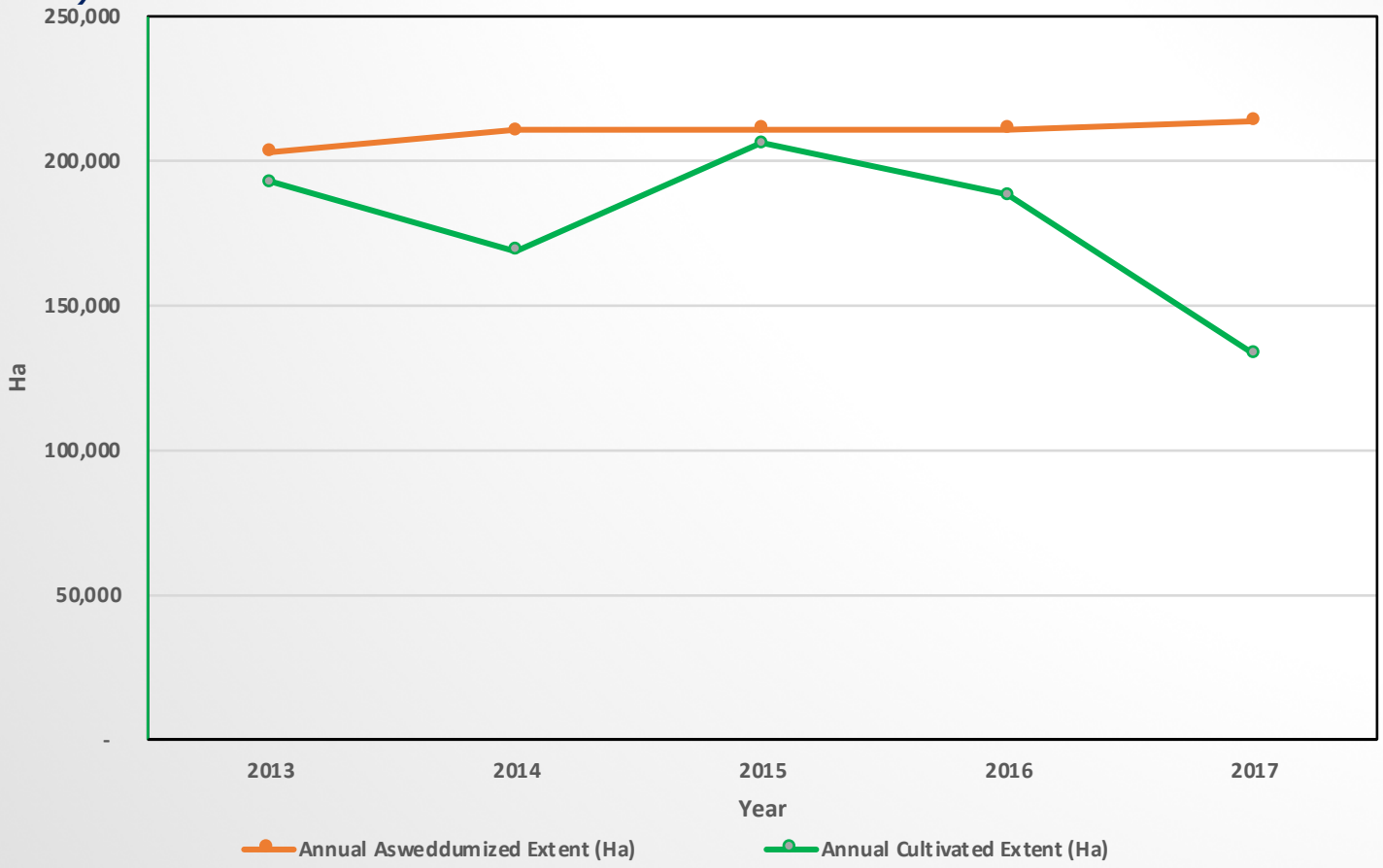
3. ECONOMIC EFFECT OF DISASTERS

Reduction of the cultivation area due to water deficiency (among MASL system)



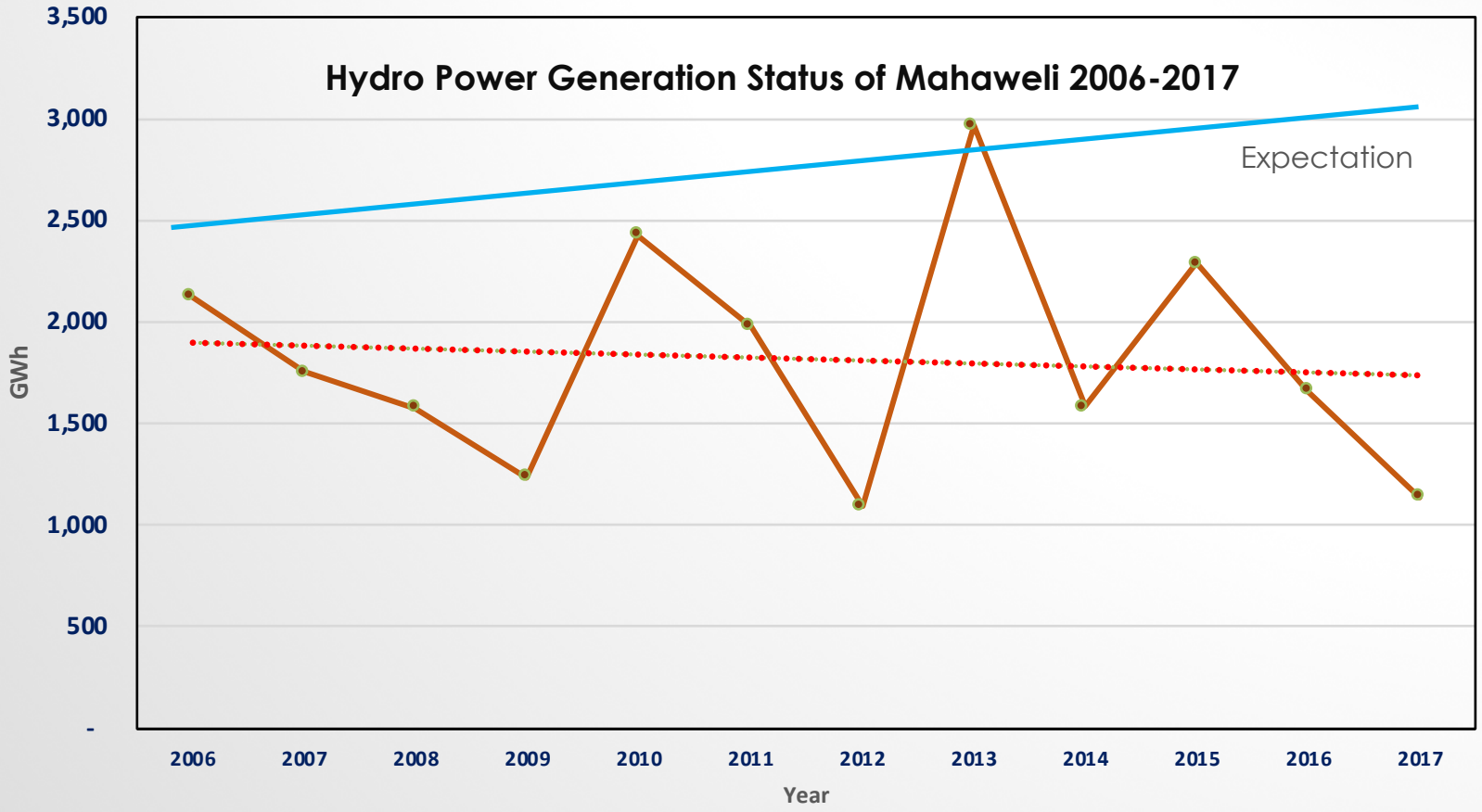
3. ECONOMIC EFFECT OF DISASTERS

Reduction of the cultivation area due to water deficiency (2013 to 2017)



3. ECONOMIC EFFECT OF DISASTERS

Reduction of Hydro Power Generation due to water deficiency



3. ECONOMIC EFFECT OF DISASTERS

Further Expected Information

- Detail analysis of economic losses to farmer families
- Develop maps to identify the magnitude of the economic losses.
- Alternative and advanced water saving agriculture methods.

Further Expected Value

- Develop Agriculture insurance scheme.
- Technical and Financial assistant for develop advanced water saving agriculture methods

4. CONTINGENCY PLANNING -Drought

Current Missions/Tasks/Activities

- Compensation packages for drought affected farmers
- Provide emergency water supply for severe drought affected areas.

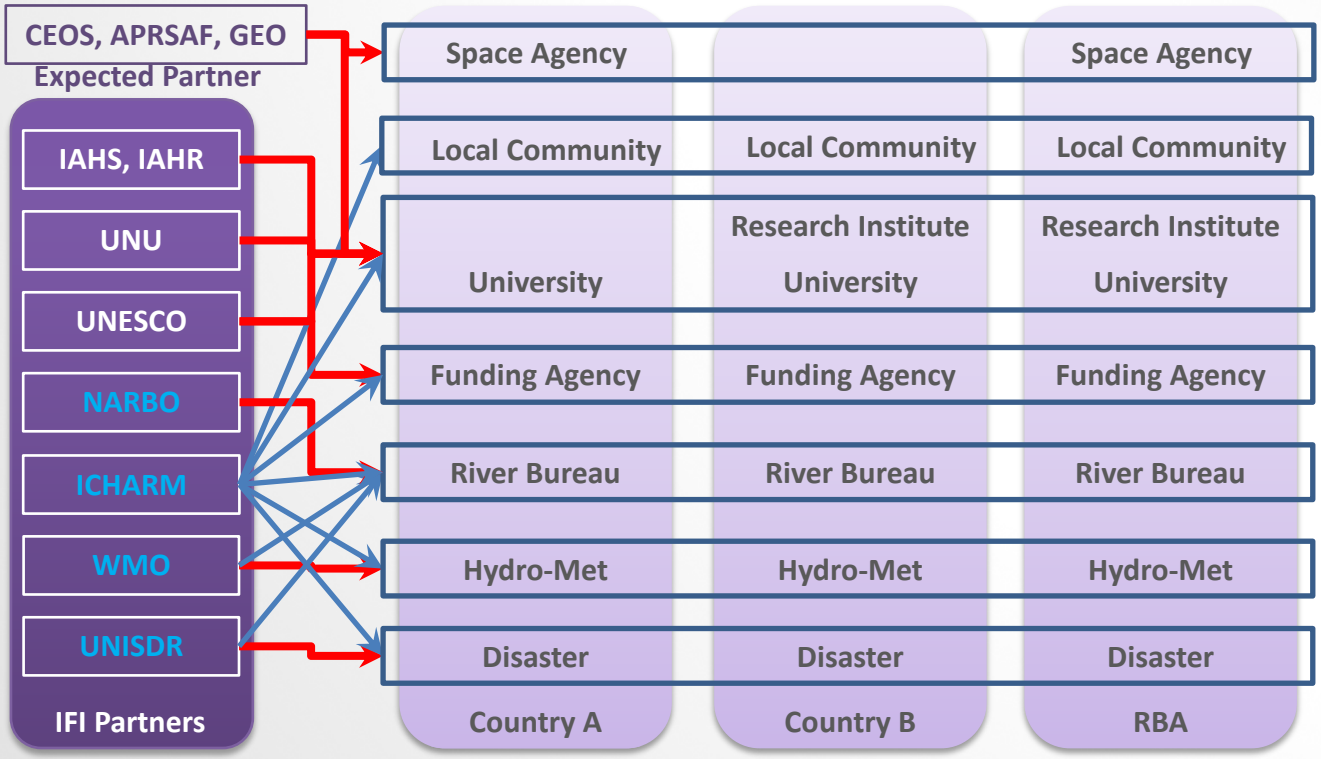
Further Expected Information

- Incorporate disaster risk reduction actions to annual plan

Further Expected Value

- Building skills regarding developing contingency planning
- Conduct the pilot studies of drought assessment

REGIONAL COORDINATION



Main support:
Sub-support:

CONTRIBUTION TO SDGS, PARIS AGREEMENT, AND SENDAI FRAMEWORK

SDGs

As a Integrated Rural Development Program MASL contribute to the almost all 17 SDGs directly and indirectly. Currently MASL provide , over 360,000 families to the settlements by providing land, water, agriculture and other all infrastructure and services.

Paris Agreement

Sri Lanka submitted its Intended Nationally Determined Contributions (INDCs) covering the 14 sectors. Among that **MASL directly contribute to achieve the targets of 6 sectors including,**

1. Energy Sector 2. Industrial Sector 3. Forestry sector 4. Agriculture
5. Water Sector 6. Irrigation Sector

Sendai Framework

- MASL is one of the Main stakeholder who join with developing National Disaster Management Plan 2018-2030.

THANK YOU.....