M&E frame work –CRIWMP

Hierarchy of Objectives	Objectively verifiable indicators, targets, baseline	M&E method	Means of verification	Frequency	Responsibility (data collection, data analysis and reporting)	Cost/ year	Risks
GCF (Paradigm shift objectives) Integrated, holistic approach to enhancing water management through the interconnected elements of irrigation systems and farming practices, drinking water supply and management.	Number of cascade water resource management and development plans prepared, funded and implemented taking integrated water management and climate resilient approach into account Base line value: 0 End term target: 30 Y1: 0, Y2: 6, Y3:15, Y4: 21, Y5: 24, Y6: 27, Y7: 30	Reviewing the relevant documents of department of agrarian development and ministries of provincial councils. Reviewing minutes of District Coordination Committee and District Agriculture Committee	DAD annual performance report, Annual performance report respective ministries of provincial council	Midterm and final evaluation	M&E Specialist	Three days	Poor reflections of the cascade development plans in respective Districts Timely availability of those reports
					Field coordinators	One day (collection of reports)	
SDG indicators **GOAL13: Climate change adaptation** **GOAL6: Integrated water management** **GOAL1: Poverty reduction** **GOAL2: Food security** **GOAL5: Gender equality**	Number of local (Cascade level, District level, DSD level, VIS level) disaster risk reduction strategies available Y1: 0, Y2: 6, Y3:15, Y4: 21, Y5: 24, Y6: 27, Y7: 30 (Cascade level) Number of institutional training programs conducted and number of individuals (Provincial/district/DSD/village level) trained to implement adaptation and climate smart development actions Y1-0, Y2-115575, Y3:385250, Y4:539350, Y5:616400, Y6:693450, Y7:770500 (no. Of individuals)	Provincial, district and divisional level government progress reports and plans	Annual progress reports and plans of the provincial councils, district secretariats, Divisional Secretariats, interview transcripts	Annual	Project Director		Delays in preparations of annual reports by Provincial, district and divisional officials
					Monitoring and Evaluation Specialist (Data analyzing and reporting)	Two days	
					Data collection - Field coordinators at district level	One day- (collection of reports)	
SP output indicator Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.	1.4.1 Number of national/ provincial level policies and plans (agriculture, water resource and adoption) captures the project model/ approach Base line value: End term target: 4	Review the Public Investment plans, CBSL reports and national budget document, agencies report	Public investment plans, CBSL reports, National Budget documents,	Annually	M&E Specialist	5 days	Timely availability of policies and plans

	Number of policies Y1:0, Y2: 0, Y3:0, Y4:1, Y5:2, Y6:3, Y7:4 Number of plansY1:0, Y2: 0, Y3:0, Y4:1, Y5:2, Y6:3, Y7: 4 1.4.2 Number of scaled up initiative funded and implemented by the GoSL and other agencies Y1:0, Y2: 0, Y3:0, Y4:1, Y5:1, Y6:2, Y7: 3		policy documents from national/ provincial agencies				
UNDP Strategic Plan Indicators							
Fund level Impact: A 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions	A.1.0.1 Total number of direct and indirect beneficiaries (% of whom is female) Baseline =0, (2016) PRO DOC End of the project target = 1,950,374[1] (51% of whom is female) 9.6% of the total population of Sri Lanka[2] 770,500[3] (51% of whom is female direct) 1,179,874 of (51% of whom is female) (indirect)	Review beneficiary tracking sheet, Review CSO progress reports, Review of reports provided by the Responsible parties, reports under the MOU's signed with PMU, project implementation report	Annual progress report from Five RPs (DoA, DAD, NWSDB, DNCWS, MDM) and provincial department of irrigation and agriculture, PIR	Annual	Monitoring and Evaluation Specialist (Data analyzing and reporting) Data collection - Field coordinators at district level	Two days Twenty-four hours (Two hours per month)	Updating tracking sheets by the CSO will not be taking place timely Assuring the quality of data by the field coordinator may not happened timely. Quality is assured by the Monitoring & Evaluation specialist
	A.1.0.2: Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (520,000 of which 265,200 are women)	Review *kanna/* seasonal progress reports of District Agrarian offices, progress report of	*kanna/* progress report of District Agrarian	Annual	Monitoring &Evaluation specialist	Four days (one day for summarize information, two days for	

1 This total combines direct and indirect beneficiaries.
2 Total population of Sri Lanka 20,271,464 according to Census of 2012
3 See footnote 82.

		provincial agriculture development officer, Focus Group Discussion, Case studies, PIR	offices and progress report department of provincial agriculture		Field coordinators	focus group discussion and one day for reporting) Four hours (verify information)	
					CSO	One day (collection of data)	
Fund level Impact: A 2.0 Increased resilience of health and well-being, and food and water security	A.2.0.1Number of males and females with year-round access to reliable and safe water supply despite climate shocks and stress Baseline =0, (2016) PRO DOC End of the project target = Y1 =0, Y2=55354, Y3=117962, Y4=173,742, Y5=217400, Y6= 217400, Y7 = 217400 517,800[4] of which 264,078 are women	Review of CSO reports, progress reports of respective divisional secretariat and provincial ministries Focus Group Discussion and field observation,	District and divisional coordinating committee meeting minutes, evaluation reports prepared for each water supply scheme progress reports of the RPs for the project	Annual	Monitoring &Evaluation specialist	Three days (one day for compile information one day for two discussion and total of four discussion and one per district)	Timely availability of reports Facilitation skills of the facilitator
					Field coordinators	Four hours for collect report – district level	
					CSO	Four hours for collect report-divisional level	

4 This is the total number of beneficiaries who receive year round and safe drinking water and whose drinking water supply systems are protected and sustained through flood advisories disseminated through cascade water management committees and through SMS. The number is calculated based on Output 2 and Output 3 beneficiaries avoiding overlaps. To avoid duplication, since the number of beneficiaries of water management and flood advisorie of Output 3 (445,500, see footnote 99) are calculated at the river basin level population, we assume this already subsumes the beneficiaries of drinking water systems residing in the river basins (144,700, see footnote 94). Therefore, v estimate the target population for this indicator as 445,500 plus the additional 72,300 beneficiaries of drinking water systems outside the river basins, under Output 2. This totals to **517,800** people. Please note that combined target populations from Result Area 1 and 2 does not add up to (and exceeds) total direct beneficiaries as these numbers both count farmers that benefit from CSA and water advisories. The total direct beneficiary number removes this duplication.

Project Outcomes A7.0 Strengthened adaptive capacity and reduced exposure to climate risksA7.0 Strengthened adaptive capacity and reduced exposure to climate risks	A7.0.1: Extent to which vulnerable households, communities and businesses use improved strategies and activities to respond to climate variability and climate change Baseline =0, (2016) PRO DOC Y1-0, Y2-115575, Y3:385250, Y4:539350, Y5:616400, Y6:693450, Y7:770500 End of the project target = 770,500[5] of which 392,955 are women	Field surveys(Focus Group Discussion) interview and case stores/case studies, Photographs and video case studies	Surveys report (transcript), case studies	Annually	Monitoring and Evaluation Specialist Field coordinators Civil Society Organizations	Four days (two days for 4 focus group discussion and two days for six interviews and two case studies)	Facilitation skill of the facilitator
Project Outputs Output 1: Upgrading and enhancing resilience of village irrigation systems and scaling up climate-resilient farming practices in three river basins of the Dry Zone	1.1 Extent of minor irrigation under targeted cascades with increased cropping intensity more than 1.6 Baseline =0, (2016) PRO DOC Y1- 0, Y2- 0, Y3- 3000 ha, Y4- 8875 ha, Y5- 8875 ha, Y6- 9250 ha, Y7- 9750 ha End of the project target =9750[6]ha	Review of 'kanna' progress report of agrarian service department. Annual report from provincial irrigation department.	Records from 'kanna' progress report, Annual report from provincial irrigation department	Annually	Monitoring and Evaluation Specialist (Analysing and reporting)	One day	updating information by CSO will not be happen regularly
					Field coordinators (Data verification)	One day (for verification of data)	
					Civil Society Organizations (data collection)	One day (collection of data)	

5 The target combines the direct beneficiaries in the three river basins under the three outputs, avoiding overlaps. This was calculated using: (i) the total number of beneficiaries reached under Output 1 which is 520,000 (which subsumes 144700 of the 217000 beneficiaries from Output and overlaps with the 520,000 beneficiaries of agricultural advisories under Output 3); (ii) the additional drinking water beneficiaries outside river basin (72,300) not counted under Output 1; and (iii) the additional number of river basin population receiving flood advisories through cascade level water committees and SMS and not counted under Output 1. This would be the non-farming population of the total reached under Output 3 which is about 40% of 445,500 (178,200). The total number of direct beneficiaries is 520,000+72,300+178,200 = **770,500**.

6 The project is upgrading 325 village irrigation systems in 30 cascades. Each of these VIS currently does not support farmers to complete one full season. The minor season, which is generally dry depends heavily on stored water in the village reservoirs. If there is not sufficient storage, minor season cultivation is abandoned. Therefore cropping intensity, measured by the number of times the irrigated downstream is fully cultivated, is less than 1. By upgrading storage and efficient water allocation, project aims to increase cropping intensity in these village irrigation systems to 1.6 or more, by improving the ability to use the downstream lands during the minor season. According to Department of Agrarian Development each of the Village Irrigation systems has 25-30 hectares as a median command area. So the targets reflect the extent of command area that will directly benefit from the improved irrigation potential and water availability through VIS upgrade. The full extent is **9750** ha by end of the project.

	1.2 No of male and female farmers reached through dissemination of climate resilient agriculture technology packages Y1- 0, Y2- 50000, Y3- 200000, Y4- 416000, Y5- 425000, Y6- 500000, Y7- 520000 Baseline value-0, End term target- 520,000	Review of Kanna meeting minutes and attendance sheets, progress reports of provincial agriculture departments, field surveys in selected sample beneficiaries tracking sheet	Survey reports, kanna meeting Annual progress report from department of Agriculture and provincial departments of agriculture and Department of Agrarian Development	Six monthly	Monitoring & Evaluation specialist Field coordinators (Data verification) Civil Society Organizations	One day for analysing and reporting Two hours per month Four hours per month	Updating tracking sheets by the CSO will not be taking place timely Assuring the quality of data by the field coordinator may not happened timely.
	1.3 No of women farmers implementing climate resilient agriculture technologies and practices Y1-0, Y2- 2000, Y3- 7000, Y4: 13209, Y5- 14000, Y6- 15000, Y7-16677 Baseline = 0 (CSA packages are currently not being disseminated0[7]) Base line value-0, End term target-16,677[8]	Review the progress reports of Provincial departments of agriculture, Focus group discussion, Case studies/ case stories	Progress reports of Provincial departments of agriculture, paper articles, DoA websites	Annually	Monitoring & Evaluation specialist Field coordinators Civil society organizations	Two days (four focus group discussion and two discussions per day)	Ability of CSO to fully deploy the district team and obtain data Facilitation skill of the facilitator

7There are no field-level interventions promoting the adoption of climate resilient practices among women farmers currently in 30 cascades and 325 VIS targeted by the project.

8 The project through activity 1.3 will provide investments to women farmers to adopt agro-technology packages that will increase income and food security. This includes 300 women entrepreneurs engaged in value addition of climate resilient crops, 822 small-farmer seed production facilities, 4950 demonstrations of improved home gardens, 8250 low-cost drip systems and 355 farm field water management demonstrations. Another 2000 women will benefit from agro-processing technologies. The total number of beneficiaries is **16,677**.

Project Outputs 2. Enhancing climate resilient, decentralized water supply and management solutions to provide year-round access to safe drinking water to vulnerable communities	2.1 Number of households with year-round access to reliable and safe water supply Baseline =0, (2016) PRO DOC 0[9] Y1 =0, Y2=55354, Y3=117962, Y4=173,742, Y5=217400, Y6= 217400, Y7 = 217400 End of the project target =217,000 of which 72300 are based outside river basins10	Review of Project implementation reports, review of annual performance reports of NWSDB and DNCWS, review of drinking water distribution data of NDRSC	Handing over reports, design reports, evaluations, Annual report from Divisional Secretariat	Annually	Monitoring and Evaluation Specialist Field coordinators	One day Two hours per month	Availability of data on time
	2.2 Number of women engaged in managing and maintaining community drinking water supply schemes	Review of Project implementation reports, constitution of	Monthly meeting minutes of	Six monthly	Monitoring and Evaluation Specialist	One day	Data collection is difficult in adverse weather condition. Because women are

9 Project investments will go in to communities that do not currently have access to year round and safe (treated, sterilized and filtered) water. So the baseline value is 0 (based on the year-round availability – these communities do have access for some of the year and for these periods, they purchase water)

10 There will be **217,000** (includes beneficiaries of advanced purification and filtration systems: 131,000; CWSS: 70,000; and RWH: 16,000) people benefitting from the different drinking water interventions that the project will invest in linked to the village irrigation systems. Of these, geographically, 70% of the systems (and therefore 144,700 beneficiaries) are located within the 3 river basins and remaining 30% of them or 72,300 of these beneficiaries will be located outside the river basin boundaries but within the associated 07 districts, targeting divisions with high vulnerability to CKDu, salinity and poverty. The 217,000 population includes the beneficiaries of 4000 rainwater harvesting tanks (individual households) and 35 community managed water supply schemes and 125 advanced filtration systems for locations with serious water quality issues.

	Y1:3224, Y2:6556, Y3:10012, Y4:13576, Y5:17240, Y6:20884, Y7:24528 Baseline = <1000[11]End of the project target =>20,000[12]	water committees and meeting minutes and conduct post project evaluation for water supply projects	water supply GramaNiladhari – resource map		Field coordinators	Two hours per month	vulnerable those period
Project Outputs 3. Strengthening climate and hydrological observing and forecasting system to enhance water management and adaptive capacity of smallholder farmers to droughts and floods	3.1 Number of female and male farmers reached through seasonal forecast for agriculture planning Baseline =0, (2016) PRO DOC 0[13] y1- 0, y2- 100,000, Y3- 200,000, y4-300,000, y5-400,000, y6- 460,000, y7- 520,000 End of the project target =520,000[14] of which 265,200 are women	Key informant's interview and Focus Group Discussion Review of Kanna meting minutes and attendance sheet, conduct sample survey to estimate outreach of seasonal forecast	Survey reports, transcript of FGD, *Kanna* meeting minutes	Annually for one season	Monitoring and Evaluation Specialist	Two days (One day for two VIS)	Efficiency and reach of the SMS-based communication system for flood warning and water management advisories
					Field coordinators	Two hours per month	
	3.2 Number of female and male farmers receiving advisories for water management	Review of 'Kanna' meting minutes and attendance sheet, focus group discussion, conduct sample	Delivery reports of technology provider, 'Kanna'	Six monthly	Monitoring and Evaluation Specialist	Two days (one day for conduct surveys and one day for two FGD)	

11 While many water supply schemes are run by women-led CBOs field surveys showed that they need capacity development and institutional strengthening support to effectively manage the O&M and business model of community water supply. Active engagement of women in the project target river basins is estimated as less than 1000 women.

12 The project aims to provide training and capacity building and institutional strengthening to at least 400 women led CBOs by the project's end. Each CBO will have an estimated 50 members of whom at least 5 will earn an income from maintaining the water supply scheme.

13 The developed seasonal forecasts (as of Maha 2015) are disseminated to the PDOA but is yet to reach the farmer organizations with practical and timely advice on adaptation to the forecast.

14 The forecasts and agricultural advisories will be disseminated through 77 Agrarian Services Centres in the three river basins. Farmers will contribute to the preparation of these advisories through ASCs and have access to the advisories through seasonal cultivation meetings at each village irrigation system, twice a year. These advisories will reach **520,000** small holder famer population who are connected to the 77 ASCs (serving about 6753 farmers each) for service delivery through both agriculture and agrarian services extension services which also will deliver tailored, climate resilient agro-technology packages to these farmers under Output 1.

	Baseline =0, (2016) PRO DOC 0[15] Y1-0, y2-80,000, y3-160,000, y4-240,000, y5-320,000, y6- 400,000, y7- 445,500 End of the project target =445,500[16]of which 227,205 are women	survey to estimate outreach of advisories	meeting minutes				
					Civil Society organization		

15 There is currently no SMS service for flood early warnings.

16 The Cascade Level Committees are the primary target for flood advisories for water management. Each cascade level water committee will reach around 4800 people (each cascade= 12 VIS/ each VIS=100 familiesx4 members) comprising of farmers benefitting from village irrigation systems, farmers working in non-irrigated lands and non-farming households. The project will form cascade water management committees bringing together the local-level representatives of drinking water supply systems and Farmer Organisations in 50 cascades. This is a total of 240,000 people directly reached through such committees. Of the remaining river basin population (925,000-240,000=685000), we also count those people benefiting from SMS service, Given the penetration of mobile phones according to statistics and recent survey (http://www.tradingeconomics.com/sri-lanka/mobile-cellular-subscriptions-per-100-people-wb-data.html and http://dbsjeyaraj.com/dbsj/ archives/ 20172) is round 40-50%, we use a conservative estimate of 30% as actually receiving the SMS advisories. Therefore, this amounts to 205,500. The total number of beneficiaries from water related EWs and advisories is a sum of those reached by cascade level committees and SMS. **(445500)**