



## Major Change in Facility

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### INTERNAL

Project Number: 47381-001  
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August 2022

## Sri Lanka: Mahaweli Water Security Investment Program

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Asian Development Bank

## **CURRENCY EQUIVALENTS**

(as of 31 July 2022)

Currency unit	–	Sri Lanka rupee/s (SLRe/SLRs)
SLRe1.00	=	\$0.00276
\$1.00	=	SLRs362.71

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
COVID-19	–	coronavirus disease
DMF	–	design and monitoring framework
ha	–	hectares
km	–	kilometer
MDP	–	Mahaweli Development Program
MFF	–	multitranches financing facility
MOI	–	Ministry of Irrigation
OCR	–	ordinary capital resources

## **NOTE**

In this report, "\$" refers to United States dollars.

<b>Vice-President</b>	Shixin Chen, Operations Group 1
<b>Director General</b>	Kenichi Yokoyama, South Asia Department (SARD)
<b>Deputy Director General</b>	Manmohan Parkash, SARD
<b>Director</b>	Mio Oka; Environment, Natural Resources, and Agriculture Division (SAER); SARD
<b>Team leaders</b>	Lance Gore, Principal Portfolio Management Specialist, SAER, SARD Sanath Ranawana, Principal Water Resources Specialist, SAER, SARD
<b>Team members</b>	Dennis Lopez, Senior Project Officer, SAER, SARD Ashish Bhateja; Principal Planning and Policy Economist; Strategy, Policy, and Business Process Division; Strategy, Policy, and Partnerships Department Krishanthi Dabare, Associate Project Officer, Sri Lanka Resident Mission (SLRM), SARD Saranga Gajasinghe, Safeguards Officer, SLRM, SARD Soma Misra; Procurement Specialist; Procurement Division 1; Procurement, Portfolio, and Financial Management Department Adolf Moises Nicolas; Associate Operations Officer; Portfolio, Results, and Quality Control Unit (SAOD-PR); SARD Julitta Ponniah, Senior Financial Management Specialist, SAOD-PR, SARD Koichi Takei, Senior Counsel, Office of the General Counsel

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## I. PROPOSED MAJOR CHANGE

1. A major change in the multitranche financing facility (MFF) for the Mahaweli Water Security Investment Program in Sri Lanka is proposed for Board consideration.<sup>1</sup>

2. The major change is expanding the MFF's scope, which focuses on access to water resources for agricultural and drinking purposes, to include agricultural productivity by financing fertilizers and other inputs for agriculture, livestock, and fisheries. This change will address the country's acute food crisis by supporting farmers during the 2022–2023 cropping seasons to help mitigate the impact of the economic downturn. If the Board approves the proposed major change in MFF, the President, acting under the authority delegated by the Board, is deemed to have approved the major change in tranche 2 to support farmers' access to agricultural inputs, as described in paras. 15–16. The revised design and monitoring framework (DMF) for the investment program is in Appendix 1 and the revised DMF for tranche 2 is in Appendix 2.

## II. BACKGROUND

3. The investment program was designed to support the government's completion of the Mahaweli Development Program (MDP), a flagship multipurpose water resources management project conceived in the 1960s with construction initiated in the 1970s. Once completed the MDP will provide reliable irrigation supplies to about 232,500 hectares (ha) of command area—of which the government had achieved about 145,750 ha before initiating this investment program—which will enhance the country's food and water security and contribute to climate adaptation. To complete the remaining scope, the MDP was broken into multiple phases; this MFF is financing the first phase and involves building and upgrading infrastructure facilities including more than 200 kilometers (km) of main canals, reservoirs, and other irrigation infrastructure while supplying water to an additional 16,176 ha of irrigation command area.

4. The investment program's impact will be improved agricultural production and sustained economic growth in the North Central Province, Central Province, North Western Province, and Eastern Province.<sup>2</sup> The outcome is secured access to water resources for agricultural and drinking purposes in project areas. The investment program has three outputs: (i) new and improved water conveyance and storage infrastructure constructed, with indicators focused on constructing infrastructure; (ii) systems for improving water resources management and productivity developed, with indicators focused on agreeing and implementing recommendations from knowledge products prepared under the investment program; and (iii) multidisciplinary investment program management operational.

5. The Asian Development Bank (ADB) approved the investment program on 15 June 2015. The MFF comprised (i) up to \$262 million equivalent from ADB's ordinary capital resources (OCR); (ii) up to \$191 million equivalent from concessional OCR; and (iii) up to \$114 million

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<sup>1</sup> Asian Development Bank (ADB). 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Democratic Socialist Republic of Sri Lanka for the Mahaweli Water Security Investment Program*. Manila.

<sup>2</sup> The impact statement of the investment program was defined following the previous DMF guidelines but remains aligned with Government of Sri Lanka, National Planning Department. 2021. *Public Investment Programme, 2021–2024*. The North Central Province, Central Province, North Western Province, and Eastern Province are known as the “northern dry zone region” of Sri Lanka because it receives less than one-third of the rainfall that falls in the country's wet zone. About 6.2 million people, or 30% of Sri Lanka's population, reside in the northern dry zone region.

equivalent cofinancing from a source still to be determined, to be administered by ADB.<sup>3</sup> The government's counterpart financing was estimated at \$108 million. The MFF was envisaged to have three tranches using the time-sliced and phased approach. Tranche 1 was approved on 2 July 2015 for the equivalent of \$150 million, comprising a \$76 million loan from ADB's OCR and a \$74 million loan from concessional OCR. Tranche 2 was approved on 13 December 2017 for the equivalent of \$210 million, comprising a \$179 million loan from ADB's OCR and a \$31 million loan from concessional OCR. ADB and the government agreed to process tranche 3, which will amount to \$93 million, once about 75% of tranche 2 proceeds have been disbursed and was programmed for Management approval in 2023. The MFF availability period is about 9.5 years until 31 December 2024. The investment program's risk categorization is *complex*, and its safeguard classifications are *category A* for the environment, *category B* for involuntary resettlement, and *category C* for indigenous peoples. The climate change impact on the project is rated as *high* and adaptation financing is estimated to be \$227 million.<sup>4</sup>

6. The Ministry of Irrigation (MOI) is the executing agency and has established a program management unit to implement the investment program.<sup>5</sup> A steering committee, comprising the MOI secretary as chair and all relevant government stakeholder ministries and departments, guides the investment program.

### III. IMPLEMENTATION PROGRESS

7. **Multitranchise financing facility performance.** The MFF's overall performance rating has remained *on track* since its approval.<sup>6</sup> Undertakings compliance and tranche performance are both rated *on track*, as all undertakings have been complied with, and until March 2022, all contract awards and disbursements have met baseline projections. However, the MFF suffered from start-up delays caused by slow tendering and procurement decisions, additional site investigations to complete detailed designs, and slow implementation of the resettlement plans. The coronavirus disease (COVID-19) pandemic has also caused intermittent work stoppages and slowdowns in 2020 and 2021.<sup>7</sup> Fuel and construction material shortages and daily power cuts since March 2022 have caused further disruptions to ongoing civil works. Consequently, the MFF's timeliness is rated *for attention* because processing of tranche 3 has been delayed by lower-than-projected contract awards and disbursements under tranches 1 and 2 (paras. 8–9).

8. **Tranche 1 performance.** As of 31 July 2022, tranche 1's performance rating was *for attention*. Contract awards totaled \$124.15 million, or 82.3% of the baseline projection of \$150.91 million. Disbursements totaled \$104.43 million, or 81.8% of the baseline projection of \$127.66 million. Compliance with financial covenants and safeguard requirements and progress toward achieving the tranche 1 DMF's output indicators were rated *on track*. Tranche 1's loan closing date is 30 June 2024.

<sup>3</sup> The MFF combines OCR and Asian Development Fund (ADF) financing up to the aggregate MFF amount. The provision of any ADF resources will be balanced by a corresponding reduction in available OCR financing (and vice versa), with total financing provided not to exceed the aggregate MFF total of \$453 million equivalent. ADF financing under this MFF is now referred to as concessional OCR. Cofinancing is planned by the Asian Infrastructure Investment Bank; dialogue has been ongoing since 2016 and they have participated in two review missions.

<sup>4</sup> The climate risk assessment prepared for the MFF using the AWARE tool classified the project as *high risk*, and risk topics are classified as: temperature increase: *high*; precipitation increase *high*; flood *high*; precipitation decrease *high*; wind increase *medium*; and on-shore Category 1 storms *high*. At MFF approval, the adaptation financing was estimated to comprise 50% of the investment amount.

<sup>5</sup> Formerly Ministry of Mahaweli Development and Environment. The name of the executing agency changed in 2020.

<sup>6</sup> ADB. 2022. [Multitranchise Financing Facility Annual Report 2021](#). Manila.

<sup>7</sup> The South Asia Department of ADB outposted an international staff to support the government in improving the MFF's performance.



9. **Tranche 2 performance.** As of 31 July 2022, tranche 2's performance rating was *for attention*. Contract awards totaled \$127.96 million, or 67.2% of the baseline projection of \$190.49 million. Disbursements totaled \$132.19 million, or 86.7% of the baseline projection of \$152.62 million.<sup>8</sup> Actual awards and disbursements are lower than expected, generally for the same reasons under tranche 1. Compliance with financial covenants and safeguard requirements and progress toward achieving the tranche 2 DMF's output indicators were rated *on track*. Tranche 2's loan closing date is 30 June 2024.

10. **Output 1: New and improved water conveyance and storage infrastructure constructed.** Following the time-sliced, phased approach, all tranches contribute towards achieving the investment program's outputs. Under this output and through 21 works contracts, the MFF envisages (i) constructing 201 km of water conveyance infrastructure, comprising 106 km of open canals, 48 km of cut-and-cover canals, and 47 km of tunnels, that will transfer water throughout the Central Province, North Central Province, and North Western Province; (ii) building two reservoirs in the North Western Province to temporarily store water at the head of the cascade irrigation systems; and (iii) rehabilitating 74 km of canals at Minipe in the Central Province and heightening its headworks by 3.5 meters. Of the 12 awarded packages, seven have been completed and five are ongoing. Prior to the current economic and political crisis, the government took decisive actions to quickly tender and evaluate the remaining works packages in efforts to improve contract awards and disbursements. Therefore, procurement for six of the remaining nine packages is at an advanced stage but contract awarding has been delayed since April 2022 because of the country's political and economic crisis. The overall physical progress of the investment program is 27% against the projected progress of 50%.<sup>9</sup> Of the 201.0 km conveyance infrastructure, 26.7 km has been completed, 47.4 km is under construction and will be completed under the ongoing contracts, and 126.9 km is yet to start with the packages still to be awarded. Construction of the two reservoirs started in March 2021, rehabilitation of the Minipe canal is completed, and heightening of the Minipe headworks is ongoing.

11. **Output 2: Systems for improving water resources management and productivity developed.** This output comprises undertaking two studies to improve the Mahaweli system's water management and productivity. The first study, *Improving System Efficiencies and Water Productivity*, explored interventions to tertiary system irrigation infrastructure and on-farm agricultural practices to improve the overall water productivity of the Mahaweli system.<sup>10</sup> Completed in 2022, the study recommended requiring timely delivery of water and application of quality inorganic fertilizer to maximize crop yields and water productivity. The second study, *Strengthening Integrated Water Resources Management*, will prepare recommendations to modernize the governance of the Mahaweli system and is planned under tranche 3.

12. **Output 3: Multidisciplinary investment program management operational.** This output focuses on submitting periodic financing requests on time and delivering the investment program's outputs on time and within budget.<sup>11</sup> The program management unit leads this output. The second periodic financing request was submitted to ADB during the fourth quarter of 2017,

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<sup>8</sup> Cumulative disbursement includes disbursement to the advance accounts.

<sup>9</sup> Based on the monthly progress report prepared by the program management unit as of 30 June 2022.

<sup>10</sup> Water productivity is a measure of production per quantity of water consumed and is expressed as yield per volume of water (ton/cubic meter) or value per volume of water (\$/cubic meter).

<sup>11</sup> Output 3 in the MFF's original DMF has been reclassified as project management activities, in line with ADB. 2020. *Guidelines for Preparing and Using a Design and Monitoring Framework: Sovereign Operations and Technical Assistance*. Manila.

and the third periodic financing request was expected to be submitted in the first quarter of 2023, depending on when tranche 1 and tranche 2 funds are substantially disbursed (para. 5).

#### IV. RATIONALE FOR THE PROPOSED CHANGE

13. Sri Lanka is facing a food security crisis. The new government's national policy framework *Vistas of Prosperity and Splendour*, called for phasing out chemical fertilizers and transiting all agriculture to organic farming over a period of 10 years.<sup>12</sup> However, the import of chemical fertilizers and pesticides was hastily banned in May 2021 without adequate preparation and with little availability of organic fertilizers.<sup>13</sup> While the ban was lifted in December 2021, the decision had a disastrous impact on rice production during the *maha* 2021–2022 cropping season, reducing rice production by about 40%–50% from previous *maha* seasons.<sup>14</sup> This significant reduction in agricultural production, compounded by the rising prices of fuel and basic food items, has made food unaffordable for a large segment of the population. About 6.3 million people (30% of the population) are facing moderate to severe food insecurity, with 65,600 people considered severely food insecure.<sup>15</sup> The *yala* 2022 cropping season began with no chemical fertilizers available to farmers, and the crop is expected to widely fail. Therefore, the government and international organizations expect food shortages to worsen during the coming months. The government is now seeking support from development partners to urgently finance the supply of fertilizers ahead of the *maha* 2022–2023 cropping season, for which about \$200 million is required.<sup>16</sup>

14. Amid a multidimensional crisis, Sri Lanka is experiencing a sharp decrease in foreign exchange reserves and a steep rise in inflation and food prices. Combined with global food price hikes, food price inflation reached 75.8% in Sri Lanka in June 2022. The crisis disproportionately affects women, children, the elderly, and people with disability, who rely on government assistance programs to meet their food and nutrition needs. The World Food Programme assessments also showed unprecedented shortages and spiraling food and fuel prices, with 95% of households are eating less preferred or less expensive food, 83% are limiting the portion size of meals, and 66% are reducing the number of meals per day. Farmers also require assured access to fertilizers throughout the crop season for land preparation and for all plant-growing stages. Without assurance, farmers are unlikely to sow their crops because the failure risk is too high.

15. **Proposed major change in scope to the facility and tranche 2.** Because of the unprecedented economic crisis and deteriorating food security situation, the government has requested ADB to reallocate \$50 million under the MFF to support farmers in the Mahaweli system by providing fertilizers and other farm inputs to increase the production of agriculture, livestock, and fisheries. The proposed change in the investment program through the provision of fertilizers and other inputs for agriculture, livestock, and fisheries is considered a substantial and material

<sup>12</sup> Ministry of Finance, Economic Stabilization and National Policies, Government of Sri Lanka. National Policy. <https://www.treasury.gov.lk/national-policy>.

<sup>13</sup> The government ban on chemical fertilizers was imposed through Sri Lanka's Import and Export Control Act, in effect from 6 May 2021 to 30 November 2021, and lifted by an extraordinary gazette on 1 December 2021.

<sup>14</sup> Sri Lanka has two main cropping seasons based on its monsoon seasons. The *maha* cropping season is generally from September to March and the *yala* cropping season is from May to August.

<sup>15</sup> World Food Programme. July 2022. *WFP Sri Lanka: Situation Report*. Rome. Food security is defined by the World Food Programme's *Consolidated Approach for Reporting indicators of Food Security* and reflects both current status (food consumption) and coping capacity (economic vulnerability and livelihood coping).

<sup>16</sup> The government has requested financial assistance of \$110 million from the World Bank. Additional requests have also been sent to the Food and Agriculture Organization and other bilateral partners. The total fertilizer requirement for the *maha* 2022–2023 season was calculated based on discussions with the Ministry of Agriculture in July 2022.

change in the type of the investments contemplated under the MFF, and it will expand the MFF outcome to include improvements in agricultural productivity.

16. The government confirmed its request to reallocate this amount from output 1 under tranche 2 of the MFF. This will also require a major change in scope for tranche 2 by replacing output 2 with a new one: farmers' access to agricultural inputs supported.<sup>17</sup>

## V. DUE DILIGENCE

17. The proposed major change will not negatively or materially affect the strategic direction of the investment program's road map, which is to improve water management in the Mahaweli system and enhance climate resilience by increasing agricultural and water productivity and farmer's incomes. The MFF classification will not change, and the implementing arrangements will remain as originally envisaged. MOI will procure the fertilizer and other farm inputs in coordination with the Ministry of Agriculture and following ADB's Procurement Guidelines (2015, as amended from time to time).<sup>18</sup> Advance procurement actions have been undertaken by MOI in consultation with ADB. The financial management risk and mitigation measures associated with the efficient and effective distribution and inventory management arrangements of the procured fertilizer and other farm inputs will be documented in the revised facility administration manual before loan proceeds are disbursed for these activities.<sup>19</sup> The revised facility administration manual reflects the changes to the DMF, the MFF and tranche 2 financing tables, and the tranche 2 procurement plan.

18. **Impact, outcome, and outputs.** To reflect the proposed change in the MFF's scope, the following changes to the facility's DMF are proposed: (i) add "food security enhanced" as an impact statement;<sup>20</sup> (ii) revise the outcome statement to "water supply and agricultural productivity in the project areas enhanced;" (iii) add a new output statement, "farmers' access to agricultural inputs supported," and related indicators; and (iv) shift the original output 3 to the DMF's program management activities section, in line with the new DMF guidelines and template (footnote 11). For tranche 2's DMF, in addition to adding the new impact statement and revising the outcome statement, output 2 will be replaced with a new output statement and indicators to reflect the receipt of farm inputs by the farmers to enhance agricultural productivity. Activities under the original output 2 will be moved under program management activities.

19. **Safeguards.** All MFF tranches are classified as *category A* for the environment, and environmental impact assessments have been undertaken for all project areas. The MFF's investment in fertilizers and other agricultural inputs is meant to cover temporary shortfalls; hence, no impacts on the environment are envisaged. For involuntary resettlement, tranche 1 is classified as *category B*, tranche 2 as *category A*, and tranche 3 will likely be classified as *category A*; resettlement plans have been prepared and implemented following the investment program's resettlement framework. For indigenous peoples, the MFF is classified as *category C*.

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<sup>17</sup> Output 2 in the original tranche 2 DMF has been reclassified as project management activities to align with the new guidelines. ADB. 2020. *Guidelines for Preparing and Using a Design and Monitoring Framework: Sovereign Operations and Technical Assistance*. Manila.

<sup>18</sup> MOI will procure the fertilizer using international competitive bidding for goods and will procure the other farm inputs using national competitive bidding for goods. Distribution of the fertilizer will be done by the Ministry of Agriculture using existing government distribution and inventory management systems. MOI will distribute the other farm inputs.

<sup>19</sup> Revised Facility Administration Manual (accessible from the list of linked documents in Appendix 3).

<sup>20</sup> The second impact statement was added to the investment program and tranche 2 DMFs because of the changes to the outcome and output. This impact statement is aligned with Government of Sri Lanka, National Planning Department. 2021. *Public Investment Programme, 2021–2024*.

20. **Implications to the government's MDP and the ongoing investment program.** The only scope change proposed in this Board paper is to reallocate \$50 million to enable the government—under the current emergency food security situation—to support farmers in the project areas to grow the *maha* 2022-2023 crop by providing fertilizers and other farm inputs to increase the production of agriculture, livestock, and fisheries. In view of the economic crisis and discussions with the International Monetary Fund, the government is reprioritizing large investment projects to curtail public expenditure. Therefore, the investment program's remaining procurement activities may be deferred until the country's macroeconomic situation stabilizes. Once the government has finalized a comprehensive reform package to restore macroeconomic stability and debt sustainability under an International Monetary Fund-supported program, ADB will discuss with the government about the approach to completing the MFF and the remaining part of the MDP, which may include processing tranche 3 to complete the ongoing works within the MFF implementation period and restructuring of the MDP's phased implementation.

## VI. THE PRESIDENT'S RECOMMENDATION

21. The President recommends that the Board approve the major change in the multitranche financing facility for the Mahaweli Water Security Investment Program in Sri Lanka as described in paras. 1–2.

## REVISED DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROGRAM

The revised design and monitoring framework strikes out content for deletion and underlines content to be added.<sup>a</sup>

<b>Impacts the Program is Aligned with</b>			
(i) Agricultural production and economic growth in the North Central Province, Central Province, North Western Province, and Eastern Province improved (program defined) <sup>b</sup>			
(ii) Food security enhanced (Public Investment Programme, 2021–2024) <sup>b</sup>			
<b>Results Chain</b>	<b>Performance Indicators</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks and Critical Assumptions</b>
<p><b>Impact</b> Improved Agricultural production and economic growth in the North Central Province, Central Province, North Western Province, and Eastern Province</p>	<p>By 2030: Annual growth of at least 8% in provincial GDP (baseline: 9.7% weighted average in 2010-2012)</p> <p>Agricultural production increases from SLRs390 billion in 2012 to SLRs600 billion (in 2012 prices)</p>	<p>Central Bank of Sri Lanka Annual Report</p> <p>Department of Agriculture and MASL annual reports</p>	<p><b>Assumptions</b> Government completes the NCPCP and associated command area improvement, and implements programs to improve productivity of water.</p> <p>Government continues to maintain irrigation infrastructure in the investment program's beneficiary command areas.</p>
<p><b>Outcome</b> Secured access to water resources for agricultural and drinking purposes in project areas</p> <p><u>Water supply and agricultural productivity in the project areas enhanced</u></p>	<p>By 2024 <u>2025</u>:</p> <p>a. 974 mcm/year of water available from the Mahaweli system in North Central Province, inclusive of 70 mcm/year of raw water for 358,000 people (2014 baseline: 60 mcm/year with 0 mcm/year for drinking)</p> <p>b. 130 mcm/year water available from Mahaweli System in North Western Province (2014 baseline: 0 mcm/year)</p> <p>c. Storage capacity of Minipe Anicut is increased to 1.25 mcm (2014 baseline: 0.18 mcm)</p> <p>d. Irrigated area serviced by Mahaweli System increases to 162,000 ha with cropping intensity of 191% (2014 baseline: 146,000 ha and 188%)</p>	<p>a–d. MASL and DOI annual reports</p>	<p>R: Climate change impacts water availability and water demand by crops exceeds projections.</p>

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p><u>By 2024:</u>  <u>e. Productivity of paddy cultivations in Mahaweli areas for the maha 2022–2023 cropping season increased by at least 35% (2021–2022 baseline: maha season paddy production of 355,000 MT in the Mahaweli system)<sup>c</sup></u></p>	<p><u>e. Department of Agriculture annual reports</u></p>	
<p><b>Outputs</b>  1. New and improved water conveyance and storage infrastructure constructed</p>	<p><u>By 2024:</u>  1a. Kalu Ganga–Moragahakanda Transfer Canal (9 km) and Upper Elahera Canal (82 km) commissioned (2014 baseline: 0 km)</p> <p>1b. North Western Province canal (96 km), two new reservoirs, and associated infrastructure commissioned (2014 baseline: 0 km and zero reservoirs)</p> <p><u>By 2019</u>  1c. Minipe Anicut heightened by 3.5 m, and Left Bank Canal and associated infrastructure rehabilitated (74 km) (2014 baseline: 0 m and 0 km)</p>	<p>1a–c. MASL and DOI progress reports</p>	<p>R: Unexpected ground conditions cause implementation delays.</p> <p>A: <u>Financing gap is met by cofinancing and increase in government counterpart funds.</u></p>
<p>2. Systems for improving water resources management and productivity developed</p>	<p><u>By 2024:</u>  2a. Recommendations from ISEWP plan <u>implemented during 2019–2024 submitted to the government for adoption and implementation</u> (2014 baseline: <u>zero not applicable</u>)</p> <p>2b. Recommendations from SIWRM plan <u>submitted to the government for adoption and implementation approved by the government by 2024</u> (2014 baseline: <u>zero not applicable</u>)</p>	<p>2a. MASL and DOI project and investment program progress and completion reports</p> <p>2b. <del>MMDE</del> <u>MOI</u> annual reports</p>	
<p><u>3. Farmers' access to agricultural inputs supported</u></p>	<p><u>By 2023:</u>  3a. <u>At least 35,000 MT of MOP fertilizer received by farmers for the maha 2022–2023 season (2021–2022 baseline: 0)<sup>c</sup></u></p> <p>3b. <u>15,000 ha of Mahaweli land provided with agricultural inputs (2021–2022 baseline: not applicable)<sup>d</sup></u></p>	<p><u>3a–b. Department of Agriculture annual reports</u></p>	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
3- Multidisciplinary investment program management operational	Timely submission of periodic financing requests for subsequent tranches.  Program outputs delivered on time and within budget.	For all indicators: MMDE financial records and progress reports	
<b>Key Activities with Milestones</b>			
<b>1. New and improved water conveyance and storage infrastructure constructed</b>			
1.1 For tranche 1, finalize detailed designs and procurement documents, and award first contract of tranche 1 works package in Q4 2015 and last works package by Q1 <del>2017</del> 2023			
1.2 Commence works for tranche 1 in Q4 2015 ( <u>completed</u> )			
1.3 Tender and award tranche 2 works packages in <del>Q4 2016</del> Q4 2022			
1.4 Complete construction of tranche 1 works by <del>Q4 2019</del> Q2 2024			
1.5 Tender and award the first packages for tranche 3 by Q4 2017 and last works package by Q4 2021			
1.6 Complete construction of tranche 2 works by <del>Q4 2021</del> Q4 2024			
1.7 Complete construction of tranche 3 works by Q4 2024			
<b>2. Systems for improving water resources management and productivity developed</b>			
2.1 Award ISEWP consulting package and mobilize consultants by Q3 2016 ( <u>completed</u> )			
2.2 Complete ISEWP consulting package by Q2 2018 ( <u>completed</u> )			
2.3 Award SIWRM consulting package and mobilize consultants by <del>Q4 2020</del> Q2 2023			
2.4 Complete SIWRM consulting package by <del>Q4 2022</del> Q4 2024			
<b>3. Farmers' access to agricultural inputs supported</b>			
3.1 Award and deliver fertilizers to farmers by Q4 2022			
3.2 Award and deliver other agricultural inputs to farmers (Q3 2022–Q4 2023).			
<del><b>3. Multi-disciplinary investment program management operational</b></del>			
<del>3.1 Mobilize PMDSC by Q3 2015</del>			
<del>3.2 Prepare the detailed designs, cost estimates, and contract documents for Tranche 2 and 3 packages by December 2016</del>			
<del>3.3 Finalize the feasibility study for NCPCP Phase 2 and prepare necessary documents for possible funding by Q2 2017</del>			
<del>3.4 Finalize documents for consulting services package for SIWRM by Q4 2019</del>			
<del>3.5 Prepare necessary reporting documents to the government and ADB (continuous)</del>			
<b>Program Management Activities</b>			
<u>Mobilize PMDSC (completed)</u>			
<u>Prepare the detailed designs, cost estimates, and contract documents for tranches 2 and 3 (completed)</u>			
<u>Finalize the feasibility study for NCPCP phase 2 and prepare necessary documents for possible funding</u>			
<u>Finalize documents for consulting services package for SIWRM</u>			
<u>Prepare necessary reporting documents to the government and ADB (continuous)</u>			
<u>Submit periodic financing requests for subsequent tranches</u>			
<u>Program outputs delivered on time and within budget</u>			
<b>Inputs</b>			
Tranche 1: ADB: \$150 million; Government of Sri Lanka: \$40 million			
Tranche 2: ADB: \$210 million; Government of Sri Lanka: \$32 million			
Tranche 3: ADB: \$93 million; Cofinancing: \$114 million; Government of Sri Lanka: \$36 million			

A = assumption, ADB = Asian Development Bank, DMF = design and monitoring framework, DOI = Department of Irrigation, ha = hectare, ISEWP = improving system efficiencies and water productivity, km = kilometer, m = meter, MASL = Mahaweli Authority of Sri Lanka, mcm = million cubic meters, MOI = Ministry of Irrigation, MOP = muriate of potash, MT = metric ton, NCPCP = North Central Province Canal Project, PMDSC = program management and design supervision consultant, Q = quarter, R = risk, SIWRM = strengthening integrated water resources management.

<sup>a</sup> The DMF has been retrofitted to align with the new guidelines. ADB. 2020. [Guidelines for Preparing and Using a Design and Monitoring Framework: Sovereign Operations and Technical Assistance](#). Manila.

- <sup>b</sup> The impact statement was defined for the investment program following previous DMF guidelines but remains aligned with Government of Sri Lanka, National Planning Department. 2021. *Public Investment Programme, 2021–2024*.
- <sup>c</sup> Sri Lanka has two main cropping seasons based on its monsoon seasons. The *maha* cropping season is generally from October to March and the *yala* cropping season is from April to September.
- <sup>d</sup> Agricultural inputs include seedstock and material for protected agriculture (e.g., polytunnels) and irrigation facilities for horticulture and high-value crops.

Source: ADB.



## REVISED DESIGN AND MONITORING FRAMEWORK FOR TRANCHE 2

The revised design and monitoring framework strikes out content for deletion and underlines content to be added.<sup>a</sup>

<b>Impacts the Program is Aligned with</b>			
(i) Agricultural production and economic growth in the North Central Province, Central Province, North Western Province, and Eastern Province improved (program defined) <sup>b</sup> (ii) Food security enhanced (Public Investment Programme, 2021–2024) <sup>b</sup>			
<b>Results Chain</b>	<b>Performance Indicators</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks and Critical Assumptions</b>
<p><del>Outcome</del>  <del>New and improved water conveyance and storage infrastructure constructed</del></p> <p><u>Water supply and agricultural productivity in the project areas enhanced</u></p>	<p>By <del>2024</del> 2025:</p> <p>a. Kalu Ganga–Moragahakanda Transfer Canal (9 km) and Upper Elaheera Canal (92 km) commissioned (2017 baseline: 0)</p> <p>b. North Western Province canal, two new reservoirs, and associated infrastructure commissioned (2017 baseline: 0)</p> <p>By 2024:</p> <p>c. <u>Productivity of paddy cultivations in Mahaweli areas for the maha 2022–2023 cropping season increased by at least 35% (2021–2022 baseline: maha season paddy production of 355,000 MT in the Mahaweli system)<sup>c</sup></u></p>	<p>a–b. Project progress reports</p> <p>c. <u>Department of Agriculture annual reports</u></p>	<p>R: Climate change impacts water availability and water demand by crops exceeds projections.</p>
<p><b>Outputs</b></p> <p>1. Completion of new and improved water conveyance and storage infrastructure increased</p>	<p>By <del>2024</del>2024:</p> <p>1a. Additional 21% of 101 km conveyance channel linking Kalu Ganga and Mahakandara reservoirs constructed (2017 baseline: 0)</p> <p>1b. Additional 45% of Mahakithula and Mahakirula Reservoirs, and Mahakithula Inlet Tunnel constructed (2017 baseline: 0)</p>	<p>1a–b. Project progress reports</p>	<p>R: Unforeseen ground conditions and extreme weather conditions lead to delays in implementation.</p> <p>A: <u>The government is able to procure and distribute the necessary farm inputs for the maha 2022–2023 cropping season.</u></p>
<p>2. <del>Multi-disciplinary investment program management operational-Farmers' access to agricultural inputs supported</del></p>	<p>By 2023:</p> <p>2a. <u>At least 35,000 MT of MOP fertilizer received by farmers for the maha 2022–2023 season (2021–2022 baseline: 0)</u></p>	<p><u>2a–b. Department of Agriculture annual reports</u></p>	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p><u>2b. 15,000 ha of Mahaweli land provided with agricultural inputs (2022 baseline: not applicable)<sup>d</sup></u></p> <p>By 2019:            2a. PFR for tranche 3 submitted to ADB (2017 baseline: n.a.)</p> <p>2b. Tranche 2 outputs delivered on time and within budget (2017 baseline: n.a.)</p>		
<p><b>Key Activities with Milestones</b></p> <p><b>1. Completion of new and improved water conveyance and storage infrastructure increased</b></p> <p>1.1 Award UEC-ICB-2B contract for constructing 8.8 km conveyance channel linking Kalu Ganga and Moragahakanda reservoirs (<u>completed</u>)</p> <p>1.2 Award UEC-ICB-2A contract for constructing 28 km tunnel (<u>completed</u>)</p> <p>1.3 Award NCPCP-3, NCPCP-4, NCPCP-5, NCPCP-6, NWPCP-3, NWPCP-4, NWPCP-5, and NWPCP-6 contracts (Q3 2022)</p> <p><b>2. Farmers' access to agricultural inputs supported</b></p> <p>2.1 Award and deliver fertilizers to farmers by Q4 2022</p> <p>2.2 Award and deliver other agricultural inputs to farmers (Q3 2022–Q4 2023)</p> <p><del><b>2. Multi-disciplinary investment program management operational</b></del></p> <p><del>2.1 PMU prepares PFR for Tranche 3 to ADB (May 2019)</del></p> <p><del>2.2 PMU prepares necessary reporting documents to the government and ADB (continuous)</del></p> <p><b>Program Management Activities</b></p> <p>PMU prepares and submits PFR for tranche 3 to ADB (Q1 2023)</p> <p>PMU prepares necessary reporting documents of the government and ADB (continuous)</p> <p>Deliver outputs on time and within budget</p> <p><b>Inputs</b></p> <p>ADB: \$179 million (regular loan) and \$31 million (concessional loan)</p> <p>Government of Sri Lanka: \$32 million</p>			

A = assumption, ADB = Asian Development Bank, DMF = design and monitoring framework, ha = hectare, km = kilometer, MT = metric ton, PFR = periodic financing request, PMU = program management unit, Q = quarter, R = risk.

<sup>a</sup> The DMF has been retrofitted to align with the new guidelines. ADB. 2020. [Guidelines for Preparing and Using a Design and Monitoring Framework: Sovereign Operations and Technical Assistance](#). Manila.

<sup>b</sup> The impact statement was defined for the investment program following previous DMF guidelines but remains aligned with Government of Sri Lanka, National Planning Department. 2021. [Public Investment Programme, 2021–2024](#).

<sup>c</sup> Sri Lanka has two main cropping seasons based on its monsoon seasons. The *maha* cropping season is generally from October to March and the *yala* cropping season is from April to September.

<sup>d</sup> Agricultural inputs include seedstock and material for protected agriculture (e.g., polytunnels) and irrigation facilities for horticulture and high-value crops.

Source: ADB.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/MC/?id=47381-001-3>

1. Performance Overview
2. Revised Facility Administration Manual