



Japan International Cooperation Agency (JICA)
Ministry of Construction



The Project for Capacity Enhancement in Developing State Management Tools for Construction Project (SMTC-P)

Target Area: Viet Nam
Type of Project Technical Cooperation Project
Project Period: February 2020 ~ February 2024



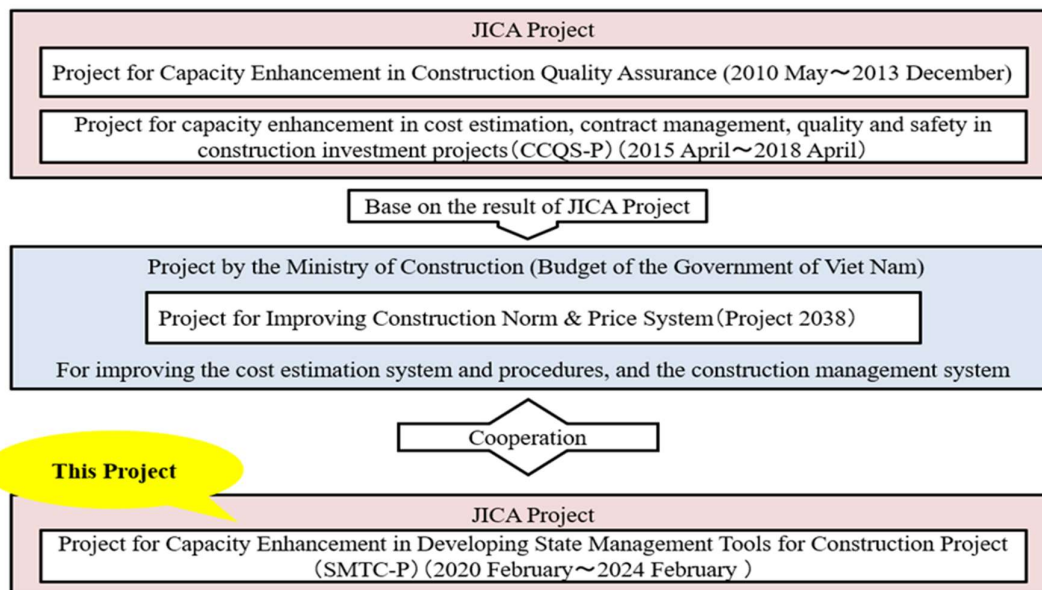
【5th Joint Steering Committee Meeting, 2nd November 2022】



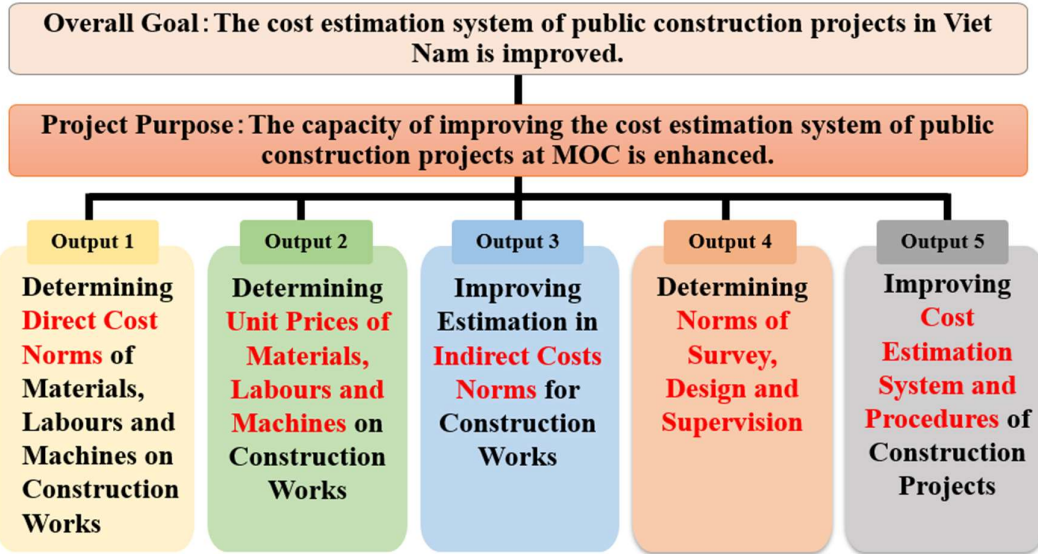
【Output1 Pilot Condition Survey, 6th November 2022】

Background of SMTC-P

In the Socialist Republic of Viet Nam (hereinafter referred to as “Viet Nam”), a large number of infrastructure development projects has been carried out with steady economic growth. However, the cost estimation system and contract management system in Viet Nam were still arbitrary, and urgently needed to be improved. JICA has implemented some technical supports to improve the condition and the SMTC-P is the third project implemented for this purpose.



Outputs (Project Design Matrix)



Issues and Countermeasures for Each Output

Output 1 and 2

AE31100 CONCRETING FOR FOUNDATIONS				Per 1 m ³	
Code	Detail	Breakdown items	Unit	Width (cm)	
				≤250	>250
AF.311	Concrete foundations	Concrete breakdown items	m ³	1.015	1.015
		Plank of gangway	m ³	0.015	0.015
		Nail	kg	0.122	0.122
		Coat nail	h	0.603	0.603
		Other material	%	1.0	1.0
		Labor	shift	0.85	1.21
		Labor of 3/7	shift	0.85	1.21
		Machine	shift	0.033	0.033
		Concrete pump 50 m ³ /h	shift	0.089	0.089
		Needle vibrator 1.5KW	shift	0.089	0.089
		Other machines	%	1.0	1.0

■ Norms should be changed based on condition surveys at site.
■ Current methodology of condition survey for unit prices should be improved.
■ System of condition survey should be established for reflecting the actual situation in productivity and unit prices.

Output 3

Project Cost

- Construction Cost
 - Common Indirect Cost (Other Cost)
 - Machine / Equipment Costs
 - Project Management Costs
 - Consultant Cost
 - Reserve Fund
- Direct Cost
 - Site Management Cost (General Cost)
 - Overhead Cost (Pre-determined taxable income)
 - Tax
- Indirect Cost

■ It is important to arrange indirect cost items of estimation system in Viet Nam.
 ■ Indirect cost rate of each item is set lower than international standard, and there is a high possibility that the actual situation is not reflected in indirect cost rate.

Output 4

■ Materials, labour and machines in "Survey" will be improved as in Output 1 because the built-up system is applied as well.

■ "Design" and "Supervision" are estimated based on rate of construction cost as follows, and the rate is set lower than international standard. Therefore, there are some cases that actual situation is not reflected. The built-up system should be suggested.

Construction Category	Construction Cost (10 Billion VND)											
	≤ 15	20	50	100	200	500	1,000	2,000	5,000	10,000	20,000	30,000
(1) Building facility	1.114	0.914	0.751	0.534	0.402	0.287	0.246	0.209	0.167	0.134	0.102	0.086
(2) Industrial facility	1.261	1.112	0.882	0.654	0.515	0.466	0.404	0.315	0.248	0.189	0.135	0.107
(3) Transportation facility	0.689	0.628	0.501	0.393	0.271	0.203	0.177	0.151	0.120	0.097	0.075	0.063

Output 5

■ Improvement of the estimation system including classification and setting up types of works and work items.
■ Establishment of methodology of estimation in each stage (1. Unit Rate Method, 2. Built-up Rate Method, 3. Combination Method)

Pre- F/S Stage

F/S Stage

D/D Stage

SV Stage

■ Introduction of system for setting norms based on construction conditions, and establishment of standardly estimation system.

Concrete Casting

(1) Structure

- Small Structures
- Plane Concrete

(2) Volume

- 10m³ and less
- 10m³ and over

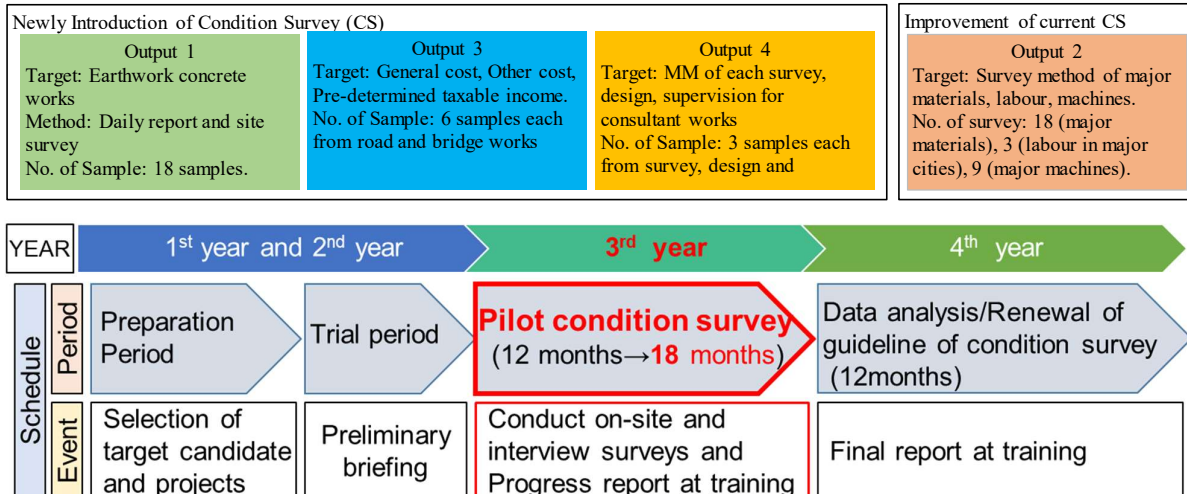
(3) Volume

- 10 - 300m³
- 300m³ over

(4) Norms of Machine & Manual Casting

- Pumping : Norm 1
- Pumping : Norm 2

Pilot Condition Survey

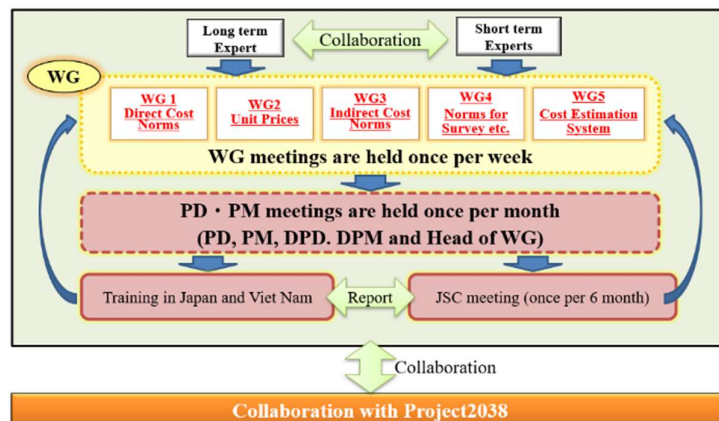


Training in Viet Nam and Japan

Venue	Training in Viet Nam Hanoi, Ho Chi Minh, Da Nang		Training in Japan Tokyo, Osaka, Fukui, Nagoya			
Time	September October 2022	August September 2023	November 2022	May 2023	October 2023	
Target	Engineers and cost estimation experts from MOC, related ministries and firms (approx. 100 participants per venue)		Trainees from MOC 10 persons per time			
Contents	Current issues on the each output, and road map after the Project.	The results of condition surveys on the each output, and road map after the Project.	The methodology of condition survey on the following items: <ul style="list-style-type: none"> labours and machines cost for construction work, trainings at the site using counting equipment unit prices of materials, labours, and machines for construction works, trainings at the site such as interview determining indirect cost and condition survey for construction works Norms of survey, design and supervision, trainings at the site such as analysis method 			

Ensure of Ownerships of C/Ps and Flexibility of Project Implementation

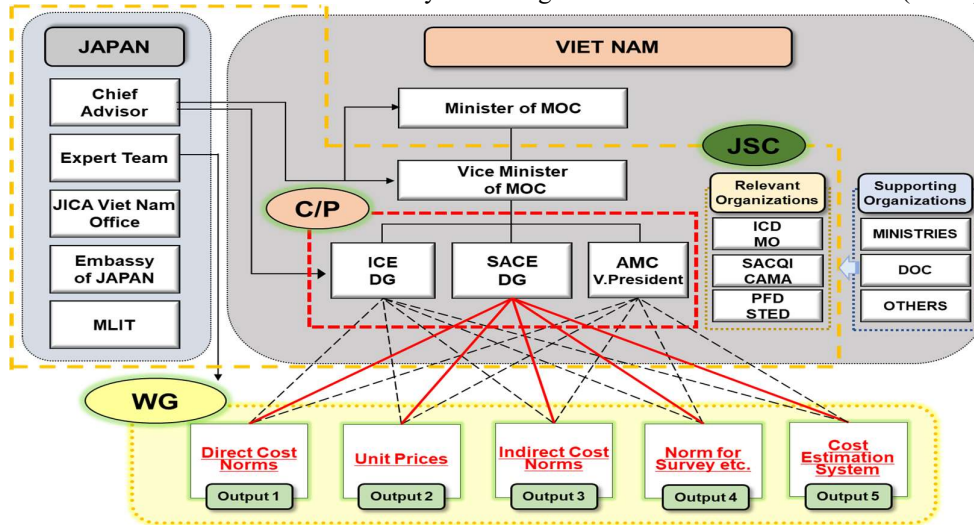
It is necessary to continuously improve the cost estimation system under the ownership of the Ministry of Construction. In the Project, the right structure will be established, and the WG meetings (approximately once a week) and PD/PM meetings will be held as appropriate. In addition, the ownership will be established in the implementation of the Project while considering the progress of Project 2038.



PD: Project Director PM: Project Manager DPD: Deputy Project Director DPM: Deputy Project Manager

Project Organizations

- 1) Implementation Agency: Ministry of Construction (MOC)
- 2) Joint Steering Committee (JSC): Vice Minister of MOC (Chairman)
Japanese Inputs: Long-term expert, Short-term expert team (KEI, MEX, C-NEXCO)
- 3) Counterpart: State Authority for Construction Economics (SACE)
Institute of Construction Economics (ICE)
Academy of Managers for Construction and Cities (AMC)



Schedule

Work Items	Year	2020				2021				2022				2023				2024	
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	
General Work	[1] JSC Meetings	▲			▲	▲				▲				▲				▲	
	[2] Monitoring	●			●	●				●	●			●	●			●	
	[3] Trainings in Japan												▼				▼		▼
	[4] Public Relations	[Horizontal bar spanning from start of 2020 to end of 2023]																	
Output 1~4	[1] Review the current methodology of determining and new regulations	[Horizontal bar spanning from start of 2020 to end of 2022]																	
	[2] Grasp the Project 2038's progress and gather the opinions from Contractor / Consultant	[Horizontal bar spanning from start of 2020 to end of 2022]																	
	[3] Establish the methodology of determining norms / unit prices	[Horizontal bar spanning from start of 2020 to end of 2023]																	
	[4] Prepare an implementation procedure of condition survey	[Horizontal bar spanning from start of 2021 to end of 2022]																	
	[5] Conduct pilot condition survey and reflect the result to the implementation procedure	[Horizontal bar spanning from start of 2022 to end of 2023]																	
	[6] Conduct the training on the methodology of estimation and the implementing procedure of condition survey	[Horizontal bar spanning from start of 2022 to end of 2023]																	
Output 5	[1] Grasp current system & regulations/ collect overseas practice/ public municipal service	[Horizontal bar spanning from start of 2020 to end of 2022]																	
	[2] Confirm how Project 2038 is to work and gather the opinions from contractors	[Horizontal bar spanning from start of 2020 to end of 2022]																	
	[3] Classify and set up type of works and work items / advise on database system	[Horizontal bar spanning from start of 2020 to end of 2023]																	
	[4] Establish the methodology of estimating the total project costs (at feasibility study's stage)	[Horizontal bar spanning from start of 2020 to end of 2023]																	
	[5] Establish the methodology of estimating the total project costs (at DD) and the final revised project costs	[Horizontal bar spanning from start of 2021 to end of 2023]																	
	[6] Conduct the training on [5]	[Horizontal bar spanning from start of 2022 to end of 2023]																	
	[7] Prepare and establish implementing organizations and structures for condition survey regularly	[Horizontal bar spanning from start of 2022 to end of 2023]																	

Legend: ■ Tet holidays

JICA SMTC Project Team

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