Assurance Report 2020

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The Ultimate Goal of Open DATA is to drive Positive Change in Our lives.

But Establishing a Causal Connection between Open DATA and Positive Societal Change is Notoriously Difficult.

The Success of Open DATA must be measured by whether it improves people’s lives

Open Data Barometer Report 2018
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>1</td>
</tr>
<tr>
<td>Notification of The Anti-Corruption Cooperation Committee</td>
<td>4</td>
</tr>
<tr>
<td>1.1 Details of Notification</td>
<td>5</td>
</tr>
<tr>
<td>1.2 CoST Guidelines</td>
<td>7</td>
</tr>
<tr>
<td>1.3 Theory of Change in Thailand</td>
<td>8</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>11</td>
</tr>
<tr>
<td>Overview of CoST Thailand the Fiscal Years 2015–2020</td>
<td></td>
</tr>
<tr>
<td>2.1 Data Disclosure Rates by Type of Construction Project</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Data Disclosure Rates by Individual Ministries</td>
<td>15</td>
</tr>
<tr>
<td>2.3 Data Disclosure Rates by regional office of the Comptroller General’s Department</td>
<td>16</td>
</tr>
<tr>
<td>2.4 Number of Projects for which Data has been Disclosed on the CoST Website by status of Projects</td>
<td>17</td>
</tr>
<tr>
<td>2.5 Analysis of CoST Thailand Overview Based on Data of 702 Projects</td>
<td>19</td>
</tr>
<tr>
<td>2.6 CoST Data Disclosure by Area</td>
<td>24</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>26</td>
</tr>
<tr>
<td>Results of Assurance Site Visits</td>
<td></td>
</tr>
<tr>
<td>3.1 Assurance Process</td>
<td>29</td>
</tr>
<tr>
<td>3.2 Summary of public opinions</td>
<td>63</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>65</td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>Appendix</td>
<td>68</td>
</tr>
</tbody>
</table>
By a notification of the Anti-Corruption Cooperation Committee given on October 11, 2019, Thailand committed itself to apply the internationally-recognized Infrastructure Transparency Initiative (CoST) to the development and deployment of tools that would help to ensure the complete transparency of Thai Public infrastructure development projects.

Between 2015 and 2020, a total of 798 projects with a combined value of 184 billion baht have been included in the CoST program.

At present, 654 projects that have been enrolled into the CoST system have disclosed data on CoST website (112 originating from central government departments, 7 from state enterprises and 535 from local government offices), total budget is 80,652,000,000 baht. Price competition on this total came to 16.72%, saving 13,483 million baht. Overall data disclosure rates stand at 82.56% and of the 18 ministries that manage projects covered by the CoST, it was found that at 91.94% and 89.42% respectively, the Ministry of Education and the Office of the Prime Minister have achieved the highest rates of disclosure.
At the regional level, Area 8 of CGD Office has the highest disclosure rate (87.13%), while at the provincial level, the 5 highest performing provinces are:

1. Mae Hong Son 95.94%
2. Lamphun 94.95%
3. Sa Kaeo 93.23%
4. Phitsanulok 91.66%
5. Kalasin 90.95%

In the fiscal year 2020, the Assurance Team carried out site visits for 16 projects, and a further 98 projects were added to the visits by CGD Provincial Offices. 1,330 individuals of the public participated in the Public forum.

**Public views of infrastructure projects**

- **78.28%** confidence in public construction projects.
- **95%** confidence in value for money and quality of work.
- **41.83%** thought that there was sufficient communication by the relevant government agencies that informing the public about the project.

**Recommendations**

To improve the quality of infrastructure Projects, analysis of the data indicates that **3 recommendations** should be implemented, as follows:

1. **Policy**
   - Adjustments to policy that will improve the potential quality of the infrastructure Projects include:
     - Disregard budget constraints when considering infrastructure projects.
     - Improve training for civil engineers in roads project.
     - Divide work/payment units of projects in accordance with the actual work being undertaken.
     - Classification contractors.

2. **Procedure**
   - The number of errors and mistakes occurring in project management should be reduced by making the following changes:
     - Clearly specify and enumerate project necessity and goals.
     - Identify measure of preventing technical problems during project implementation.
     - Improve coordination between government agencies involved in the project.

3. **Participation**
   - To reduce the number of potential obstacles and to improve the public’s perception of public infrastructure, the following changes should be considered:
     - Increase support for public relations and develop better communication channels.
     - Raise awareness for stakeholders.
     - Develop a mentoring system for data disclosure.
CoST was initiated in the United Kingdom and at present, there are 19 members. It is a system for gathering, evaluating and disseminating information relevant to state-funded infrastructure construction projects. To ensure both the openness and the cost-effectiveness of public infrastructure, CoST also provides a means whereby the public may participate in the examination of data on these projects.

Thailand joined the CoST program on September 22, 2014 and five years later, by an announcement in the Royal Thai Government Gazette, the Anti-Corruption Cooperation Committee approved the implementation of the program under the Government Procurement and Supplies Management Act of 2017, with effect from October 12, 2019.
By virtue of the powers granted by Section 17, paragraph 2 of the 2017 Government Procurement and Supplies Management Act, the Anti-Corruption Cooperation Committee has established the CoST program as the procedure to facilitate public participation in public procurement as prescribed in the Notification of the A.C.C. Committee. The program’s guidelines and operations are described below.
1.1 Details of Notification

The Anti-Corruption Cooperation Committee made a formal announcement regarding Infrastructure transparency Initiative.

Adherence to the provisions of CoST has been enforced from the day following publication of the Anti-Corruption Cooperation Committee’s announcement in the Royal Thai Government Gazette.

Under the Infrastructure Transparency Initiative (CoST), state agencies responsible for overseeing state-funded construction projects are required to engage in a continuous process of disclosing to the public all data relevant to those activities, and to do so for the entire period during which the construction is being undertaken. This data is then subject to auditing by an Assurance Team and the results of this process are presented to a CoST sub-committee.

As per the requirements in clause 5, state agencies responsible for managing construction projects are required to submit basic information of the project to the CoST sub-committee within 15 working days of budget allocations being approved for the project.

A CoST sub-committee is responsible for selecting construction projects for inclusion within the CoST program, subject to the following requirements.
5.1 Construction projects for which procurements will be made, in Electronic Government Procurement System (e-GP), should have the following characteristics:

(5.1.1) The highest value of construction projects from central government agencies.

(5.1.2) For local government, it should meet the following criteria:

(5.1.2.1) The highest value of construction project from Provincial Administrative Organization.

(5.1.2.2) Construction project value from 7 million baht from the municipality.

(5.1.2.3) Construction project value higher than 7 million baht from the Subdistrict Administrative Organization.

(5.1.2.4) The highest value of construction projects from Special Form of a Local Administrative Organization (i.e., in Bangkok or Pattaya).

(5.1.3) Construction project value from 500 million baht from state-owned enterprise.

(5.1.4) The highest value of construction projects from other government agencies.

5.2 The construction project will affect the public.

5.3 There is a high degree of certainty that work will commence on the construction project.

5.4 The project may be proposed by the government agency for themselves.

5.5 The CoST sub-committee agrees to include the project in the CoST program.

6.1 Procuring entities are required to fully disclose all relevant data on the project for the entire period during which construction is underway.

6.2 The Comptroller General’s Department Secretary to the CoST sub-committee (MSG), have a responsibilities to hire an Assurance Team.

6.3 The responsibilities and duties of the Assurance Team are as follows:

(6.3.1) Monitoring the accuracy and completeness of disclosed data.

(6.3.2) Publish an Assurance Report detailing the results of the assurance results.

(6.3.3) Coordinate with the Secretary to the CoST sub-committee when requesting additional information from procuring entities.

(6.3.4) Present the Assurance Report to the CoST sub-committee.

6.4 Once the Anti-Corruption Cooperation Committee has approved the results of the assurance results, the Comptroller General’s Department will present the findings to the procuring entities and publish to the public.

6.5 In case that the Assurance Team discovers irregularities or omissions in the data or evidence of behavior that indicates that corruption has occurred or that might lead to corruption occurring, a report should be submitted to the CoST sub-committee for its consideration.

7 The cabinet agreed by a resolution on January 10, 2017 that any projects enrolled into the CoST program for which work is not yet complete should continue to be covered by the program. Moreover, individuals who have been assigned responsibilities and duties under the program should continue with these, while also developing guidelines and procedures to comply with the cabinet resolution and then to apply these to future work carried out under the CoST scheme until such point as this work is complete.
CoST International has set up the following guidelines:

1. Government agencies should submit details of infrastructure projects that meet the criteria.
   - Within 15 days of budgets being approved.

2. The CoST sub-committee (MSG) will select projects for inclusion in CoST program and will then notify the relevant state agencies of their decision.

3. Procuring entities will register for the CoST officers username and passwords, and then submit the registration from to CGD.
   - for submitting information on 40 separate data points.

4. The Assurance Team will monitor the accuracy and completeness of the disclosed data.
   - Completeness
   - Accuracy
   - Status of Work

5. Projects will be selected for random visit site.

6. Arrange site visit

7. A public forum will be established to allow stakeholders to exchange ideas and suggestions.

8. Summarise assurance result and complete the report

9. The Anti-Corruption Cooperation Committee will approve the report submitted by the Assurance Team.
   - Allow Publishing the Assurance report on the CoST website.
The theory of Change works to connect a business model or the main axis of operations of a business with long-term outcomes, and this helps to identifying the direction of CoST Thailand to meet specified goals and achieve measurable short-term outcomes. In this regard, there are 4 major indicators.

1. Designating the procedures for data disclosure.
2. Ensuring that the review process meets designated standards.
3. Establishing common rules and regulations.
4. Developing co-operative working practices between public sectors and citizen.
Designating the procedures for data disclosure: CoST Thailand has been responsible for ensuring that state agencies that are enrolled into the CoST meet the requirements of 40 data points Infrastructure Data Standard (IDS) which 25 of these is filled automatically from the e-GP system and the remaining 15 are completed by CoST officers. This should provide transparency in terms of data disclosure.

Ensuring that the monitoring process meets designated standards: This entails establishing quality standards for the auditing of data that are in accord with the CoST International standards, and that will in the future meet ISO 17025 requirements. This will then lead to and reinforce the principle of accountability.

Establishing common rules and regulations: In its role as Secretary to CoST Thailand, the Comptroller General’s Department has ruled that CoST will be operated under the provisions of the Government Procurement and Supplies Management Act of 2017, which will help to ensure that the CoST process establishes transparency in state-funded construction projects.

Developing co-operative working practices between public sector and citizen: This is being achieved by establishing platforms where they may voice their opinions, which will then lead to improved accountability.

Thailand has been successful in achieving its short-term outcomes and has now entered into the process of working towards the mid-term outcomes, with the expectation that this will be accomplished over the 4 years from 2020 to 2023. This will then open the way to the successful accomplishment of the two long-term outcomes of effectiveness and efficiency, which themselves have the 3 aspects of:

- Disclosure
- Verifiabilibity
- Participation
Develop the participatory system to increase transparency and disclosure and improve accountability.

### Project Goals

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mid Term 2020</th>
<th>Mid-Term 2021 - 2022</th>
<th>Mid-Term 2023 - 2024</th>
<th>Long-Term 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disclosure</strong></td>
<td>All state agencies responsible for construction projects enter the CoST program and fully disclose data as per the requirements.</td>
<td>The web application is used to facilitate the disclosure of data on construction projects by the agency responsible.</td>
<td>The selection criteria for projects for which data is disclosed are extended to encompass all state-funded construction projects.</td>
<td>Compliance with data disclosure requirements is increased to ensure 100% of data requirements are met and that the information submitted is complete.</td>
</tr>
<tr>
<td><strong>Verifiability</strong></td>
<td>A system is established to select and randomly assess projects enrolled in the CoST program.</td>
<td>Standard criteria are established for the auditing and reviewing of data submitted for analysis.</td>
<td>The auditing and review process are improved to meet international standards.</td>
<td>International standards are maintained for the systems for auditing and reviewing project data.</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>Members of the public are able to access data disclosed on public-sector construction projects, and are able to make officials aware of problems and impacts arising from projects included in the CoST program.</td>
<td>The procedures for ensuring state, private-sector and public participation in public-sector construction are in accordance with the principles of good governance.</td>
<td>Procedures are established to ensure that the public have shared responsibility for the project following its completion.</td>
<td>All public-sector construction projects maintain processes that ensure public participation in accordance with the CoST Thailand principles.</td>
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**Mid Term outcome**
Develop the participatory system to increase transparency and disclosure and improve accountability.

**Long Term**
Develop organizational cultures that increase transparency, verifiability and disclosure, and public participation.

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**Mid Term**
- **Outcome:** Disclosure
  - **2020:** All state agencies responsible for construction projects enter the CoST program and fully disclose data as per the requirements.
  - **2021 - 2022:** The web application is used to facilitate the disclosure of data on construction projects by the agency responsible.
  - **2023 - 2024:** The selection criteria for projects for which data is disclosed are extended to encompass all state-funded construction projects.
- **Outcome:** Verifiability
  - **2020:** A system is established to select and randomly assess projects enrolled in the CoST program.
  - **2021 - 2022:** Standard criteria are established for the auditing and reviewing of data submitted for analysis.
  - **2023 - 2024:** The auditing and review process are improved to meet international standards.
- **Outcome:** Participation
  - **2020:** Members of the public are able to access data disclosed on public-sector construction projects, and are able to make officials aware of problems and impacts arising from projects included in the CoST program.
  - **2021 - 2022:** The procedures for ensuring state, private-sector and public participation in public-sector construction are in accordance with the principles of good governance.
  - **2023 - 2024:** Procedures are established to ensure that the public have shared responsibility for the project following its completion.

**Long Term**
- **Outcome:** Disclosure
  - **2025:** Compliance with data disclosure requirements is increased to ensure 100% of data requirements are met and that the information submitted is complete.
- **Outcome:** Verifiability
  - **2025:** International standards are maintained for the systems for auditing and reviewing project data.
- **Outcome:** Participation
  - **2025:** All public-sector construction projects maintain processes that ensure public participation in accordance with the CoST Thailand principles.

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**Public Participation**
- Public participation occurs at all stages of the construction process.
The implementation of the CoST in Thailand began with a pilot project in 2015. Two years later, in 2017, 5 public-sector construction projects involved in CoST. These were all large-scale developments that were significant in terms of their budgetary requirements, their effects on the environment, their consequences for local communities, and others. In the 2018 CoST Thailand was extended to include construction projects managed by central government agencies, state enterprises and local government organizations, which is the first time that the local government had been covered by CoST. In the 2019 141 projects with a total budget of 72.06 billion baht participated in the CoST program and this grew to 252 projects with a budget of 97.89 billion baht.
Over the period from 2015 to 2020, 798 construction projects were included in the CoST Thailand and these having a value of 184.2 billion baht. Procuring entities have disclosed data relevant to the construction work through the CoST website, which is managed by the Comptroller General’s Department.
Of the projects selected for enrollment in the CoST program between fiscal years 2015 to 2020, 702 projects have disclosed data to CoST, split between 654 that have begun procurements and 48 that have yet to do so. Average disclosure rates stand at 82.56%.

### Fiscal Year 2015
- **Budget**: $47,215 million baht
- **Focal Price**: $43,788 million baht
- **Value of contracts**: $39,282 million baht
- **Difference between budget and contracts value**: 16.80%
- **Difference between Focal Price and contracts value**: 10.29%

### Fiscal Year 2016
- **Budget**: $4,830 million baht
- **Focal Price**: $4,531 million baht
- **Value of contracts**: $3,313 million baht
- **Difference between budget and contracts value**: 6.18%
- **Difference between Focal Price and contracts value**: 26.89%

### Fiscal Year 2017
- **Budget**: $1,338 million baht
- **Focal Price**: $1,197 million baht
- **Value of contracts**: $1,070 million baht
- **Difference between budget and contracts value**: 20.03%
- **Difference between Focal Price and contracts value**: 10.67%

### Fiscal Year 2018
- **Budget**: $9,782 million baht
- **Focal Price**: $9,653 million baht
- **Value of contracts**: $8,480 million baht
- **Difference between budget and contracts value**: 13.31%
- **Difference between Focal Price and contracts value**: 12.15%

### Fiscal Year 2019
- **Budget**: $3,786 million baht
- **Focal Price**: $3,808 million baht
- **Value of contracts**: $3,121 million baht
- **Difference between budget and contracts value**: 17.57%
- **Difference between Focal Price and contracts value**: 18.04%

### Fiscal Year 2020
- **Budget**: $13,699 million baht
- **Focal Price**: $13,247 million baht
- **Value of contracts**: $11,902 million baht
- **Difference between budget and contracts value**: 13.12%
- **Difference between Focal Price and contracts value**: 10.15%

### Total
- **Budget**: $80,652 million baht
- **Focal Price**: $76,227 million baht
- **Value of contracts**: $67,169 million baht
- **Difference between budget and contracts value**: 16.72%
- **Difference between Focal Price and contracts value**: 11.88%
### 2.1 Data Disclosure Rates by Type of Construction Project

<table>
<thead>
<tr>
<th>Public utilities</th>
<th>Public facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td></td>
</tr>
<tr>
<td>55 projects</td>
<td>37 projects</td>
</tr>
<tr>
<td>1,897 million baht</td>
<td>5,235 million baht</td>
</tr>
<tr>
<td>Data disclosure percentage</td>
<td>Data disclosure percentage</td>
</tr>
<tr>
<td>81.31%</td>
<td>81.06%</td>
</tr>
<tr>
<td>Average number of bidders per project</td>
<td>Average number of bidders per project</td>
</tr>
<tr>
<td>3.15%</td>
<td>3.09%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Irrigation</th>
<th>Roads and bridges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td></td>
</tr>
<tr>
<td>38 projects</td>
<td>416 projects</td>
</tr>
<tr>
<td>17,365 million baht</td>
<td>40,310 million baht</td>
</tr>
<tr>
<td>Data disclosure percentage</td>
<td>Data disclosure percentage</td>
</tr>
<tr>
<td>81.78%</td>
<td>84.75%</td>
</tr>
<tr>
<td>Average number of bidders per project</td>
<td>Average number of bidders per project</td>
</tr>
<tr>
<td>4.11%</td>
<td>4.41%</td>
</tr>
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<table>
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<tr>
<th>Ports</th>
<th>Airports</th>
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<td><strong>Budget</strong></td>
<td></td>
</tr>
<tr>
<td>1 project</td>
<td>6 projects</td>
</tr>
<tr>
<td>39 million baht</td>
<td>59,378 million baht</td>
</tr>
<tr>
<td>Data disclosure percentage</td>
<td>Data disclosure percentage</td>
</tr>
<tr>
<td>63.64%</td>
<td>73.66%</td>
</tr>
<tr>
<td>Average number of bidders per project</td>
<td>Average number of bidders per project</td>
</tr>
<tr>
<td>1%</td>
<td>2.4%</td>
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<table>
<thead>
<tr>
<th>Hospitals</th>
<th>Buildings and museums</th>
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</thead>
<tbody>
<tr>
<td><strong>Budget</strong></td>
<td></td>
</tr>
<tr>
<td>4 projects</td>
<td>145 projects</td>
</tr>
<tr>
<td>3,488 million baht</td>
<td>17,467 million baht</td>
</tr>
<tr>
<td>Data disclosure percentage</td>
<td>Data disclosure percentage</td>
</tr>
<tr>
<td>86.55%</td>
<td>81.7%</td>
</tr>
<tr>
<td>Average number of bidders per project</td>
<td>Average number of bidders per project</td>
</tr>
<tr>
<td>8.75%</td>
<td>3.32%</td>
</tr>
</tbody>
</table>
2.2 Data Disclosure Rates by Individual Ministries

Office of the Prime Minister
- 4 projects
- Budget: 908 million baht
- Average number of bidders: 5.25 per project
- Data disclosure: 89.42%

Ministry of Defence
- 11 projects
- Budget: 3,954 million baht
- Average number of bidders: 3.56 per project
- Data disclosure: 80.44%

Ministry of Finance
- 5 projects
- Budget: 432 million baht
- Average number of bidders: 2.25 per project
- Data disclosure: 80.68%

Ministry of Natural Resources and Environment
- 16 projects
- Budget: 660 million baht
- Average number of bidders: 2.44 per project
- Data disclosure: 86.16%

Ministry of Transport
- 21 projects
- Budget: 95,536 million baht
- Average number of bidders: 2.62 per project
- Data disclosure: 78.41%

Ministry of Digital Economy and Society
- 2 projects
- Budget: 21 million baht
- Average number of bidders: 2 per project
- Data disclosure: 66.67%

Ministry of Energy
- 5 projects
- Budget: 185 million baht
- Average number of bidders: 2.8 per project
- Data disclosure: 66.53%

Ministry of Higher Education, Science, Research and Innovation
- 27 projects
- Budget: 7,649 million baht
- Average number of bidders: 4.22 per project
- Data disclosure: 79.86%

Ministry of Social Development and Human Security
- 5 projects
- Budget: 437 million baht
- Average number of bidders: 4.6 per project
- Data disclosure: 81.13%

Ministry of Commerce
- 1 project
- Budget: 23 million baht
- Average number of bidders: 7 per project
- Data disclosure: 54.55%

Ministry of Education
- 2 projects
- Budget: 30 million baht
- Average number of bidders: 4.5 per project
- Data disclosure: 91.94%

Ministry of Agriculture and Cooperatives
- 8 projects
- Budget: 6,166 million baht
- Average number of bidders: 8.38 per project
- Data disclosure: 79.96%

Ministry of the Interior
- 579 projects
- Budget: 24,729 million baht
- Average number of bidders: 4.01 per project
- Data disclosure: 84.05%

Ministry of Public Health
- 9 projects
- Budget: 4,357 million baht
- Average number of bidders: 6.75 per project
- Data disclosure: 84.83%

Ministry of Labour
- 10 projects
- Budget: 274 million baht
- Average number of bidders: 3 per project
- Data disclosure: 64.71%

Ministry of Justice
- 3 projects
- Budget: 908 million baht
- Average number of bidders: 4 per project
- Data disclosure: 79.29%

Ministry of Culture
- 2 projects
- Budget: 32 million baht
- Average number of bidders: 5.5 per project
- Data disclosure: 64.17%

Ministry of Tourism and Sports
- 1 project
- Budget: 35 million baht
- Average number of bidders: 3 per project
- Data disclosure: 67.74%

Ministry of Public Health
- 9 projects
- Budget: 4,357 million baht
- Average number of bidders: 6.75 per project
- Data disclosure: 84.83%
Data Disclosure Rates by regional office of the Comptroller General’s Department

1. Regional Office
   - Disclosed: 53 projects
   - Rate: 85.26%

2. Regional Office
   - Disclosed: 83 projects
   - Rate: 86.22%

3. Regional Office
   - Disclosed: 39 projects
   - Rate: 83.87%

4. Regional Office
   - Disclosed: 88 projects
   - Rate: 80.97%

5. Regional Office
   - Disclosed: 34 projects
   - Rate: 86.31%

6. Regional Office
   - Disclosed: 73 projects
   - Rate: 83.73%

7. Regional Office
   - Disclosed: 33 projects
   - Rate: 86.76%

8. Regional Office
   - Disclosed: 68 projects
   - Rate: 87.13%

9. Regional Office
   - Disclosed: 86 projects
   - Rate: 82.86%

10. Central government agencies
    - Disclosed: 127 projects
    - Rate: 80.70%

11. State enterprises
    - Disclosed: 147 projects
    - Rate: 80.70%

12. Special purpose local government
    - Disclosed: 147 projects
    - Rate: 80.70%

Note: The difference between number of project and disclosed is in preparation stage.
2.4 Number of Projects for which Data has been Disclosed on the CoST Website by status of Projects.

- **Central government agencies**
  - Procurement stage: 15 projects
  - Construction stage: 9 projects
  - Completed: 24 projects

- **State enterprises**
  - Procurement stage: 74 projects
  - Construction stage: 5 projects
  - Completed: 38 projects

- **Local government organizations**
  - Procurement stage: 15 projects
  - Construction stage: 249 projects
  - Completed: 74 projects

- **Number of participating projects**
  - **Central government agencies**: 147 projects
  - **State enterprises**: 23 projects
  - **Local government organizations**: 23 projects

- **Number of projects for which data has been disclosed**
  - **Central government agencies**: 127 projects
  - **State enterprises**: 16 projects
  - **Local government organizations**: 559 projects

- **Notes**
  - The data is presented for different stages: Procurement stage, Construction stage, and Completed.
The number of construction projects included in the CoST Thailand jumped substantially in 2020 because of compliance becoming legally enforceable. However, against a target of 100% disclosure, rates have remained fairly stable. Therefore efforts need to be made to communicate to government agencies the desirability of full data disclosure.

CoST Thailand, 2020: Budget Allocations, Number of Projects and Disclosure Rates

CoST Thailand, 2020: Number of Tenders Submitted and Level of Price Competition
Analysis of CoST Thailand
Based on Data from 702 Projects

Although there appears to be a relationship between price competition and the number of bidders, it is not clear from this analysis whether the number of bids submitted has a determinant influence on the level of competition, and so it is necessary to consider other factors, including the budget, their location and the type of work carried out.

**Relationship between data disclosure and level of price competition**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

*Note R Square = Coefficient of multiple determination
Adjusted R Square = The R-squared model adjusted for the model’s terms
Standard Error = Average divergence of data points from the regression line

Tip: The R-squared value represents the degree of correlation between sets of data; as values approach 1, the degree of correlation tightens.

Initially, data disclosure rates do not appear to have a significant influence on the level of price competition ($R^2 = 0.49$). However, the number of projects analyzed is fairly low and, in the future, if a greater number of projects are enrolled in CoST, it may be possible to analyze the data more accurately, and it may emerge that data disclosure rates have a greater influence on levels of price competition than this initial analysis indicates.
Analysis of the relationship by type of project reveals that the data for work on roads and bridges meets the expected relationship shown by the linear regression, that is having 4 tenders submitted results in price competition of 15%. However, for irrigation work and hospitals, the number of participants in the bidding process and the level of price competition are higher than the average. This might not be desirable since high levels of competition could result in the winning bid having a value significantly lower than the cost estimate, and this may cause the contractor to incur losses or to become insolvent, it means that they would be unable to complete their contractual obligations and the project would suffer delays.

Analysis of projects with reference to the Regional office of the Comptroller General responsible shows that for those in the northeast of the country (Regional Offices zone 3 and 4), levels of price competition were higher than other areas, while for the far south (Regional Office zone 9), price competition was weak. In the latter case, however, there are special rules in place in the 3 border provinces of the far south that exempt agencies from the requirement to consider bids based on price, allowing them instead to use their own criteria. Tenders that have been submitted according to the latter have an average value 3% below the focal price, whereas in areas where tenders are chosen by the normal process of considering bid prices, these average a value 12% below the estimate.
In terms of the relationship between price competition and the value of the project, the data shows that for projects that have a value less than 5,000,000 baht, competition is at a high level, and a large number of tenders are submitted, though this may increase the risk of project delays.

Indeed, when projects are considered with reference to the duration of the project, there is typically a strong relationship between a project’s being completed within 90 days and its receiving a large number of bids and showing a high level of price competition, while projects completed in less than 180 days, generally also receive a higher than average number of bids.
Considered with reference to the ministry overseeing the project, price competition is relatively high for those that fall under the oversight of the Ministry of Agriculture and Cooperatives. For these, price competition is 38.95\%, followed by projects managed by the Ministry of Tourism and Sports, for which price competition is 21.44\%.

Overruns were recorded for 162 projects. 69 of these were categorized as being in contract management process while the remaining 93 were completed.

These statistics show that projects connected to irrigation and public utilities suffered the longest delays, these running to 243–334 Days. The next worst affected were ports, though this might be a consequence of there having been only a single tender submitted and the low levels of data disclosure. Details of these delays are given below,
Analysis shows that price competition reached at least 15% in 3 areas, these were in the area of CGD Regional Office zone 5, 8 and central government agencies and this may be one factor contributing to delays.

In the case of projects connected to public utilities, competition also rose over 15% in 3 areas, which located in CGD Regional Offices zone 1, 2 and 5, which may be a factor that helps to explain the occurrence of project delays.
CoST Data Disclosure by Area

- Northern: 36 projects
- State enterprises: 23 projects
- Central government departments: 147 projects
- Special local government: 12 projects
- Northeastern: 131 projects
- Western: 27 projects
- Eastern: 106 projects
- Southern: 165 projects
Data disclosure rates of the local government are high (the average is 84.79%). The 5 provinces with the highest levels are:

1. Mae Hong Son
   - Disclosure: 95.94%

2. Lamphun
   - Disclosure: 94.95%

3. Sa Kaeo
   - Disclosure: 93.23%

4. Phitsanulok
   - Disclosure: 91.66%

5. Kalasin
   - Disclosure: 90.95%

Considering only CGD Regional Offices, Regional Office zone 8 has the highest rate of data disclosure (87.13%).
Chapter 3

Results of Assurance Site Visits

For the fiscal year 2020, there are 16 projects that were selected for Assurance site visit. The results of this process were broadly similar for all of these Projects. Thus, while the rates of data disclosure was at a high level, the quality of the data disclosed needs to be improved.

However, significant differences emerged between them during assurance process as a result of a consideration of a range of other influences. These projects were divided into the 5 groups of: large-scale projects (or megaprojects), construction of local roads, repairs to local roads, irrigation works, and local tourist attractions.
<p>| Project |
|------------------|----------------|----------------|------------------|------------------|-------------------|
| Flyover construction project at Bor Win Industrial Estate intersection/Eastern Seaboard /Amata City and Pak Ruamjunction, Chonburi | Ministry/agency responsible | Budget (Mns. Baht) | Price competition (%) | Data disclosure (%) | time overrun | No. of tenders submitted |
| | Department of Highways | 3,900 | 11.05 | 100 | Under construction | 4 |
| Construction project to improve water distribution canal Rama1 with additional building | Royal Irrigation Department | 5,570 | 30.96 | 94.29 | 29.15 | 8 |
| Construction of Nakhon Nayok bus terminal Tambol Baan Yai, Amphoe Muang, Nakhon Nayok Province. Tenders were submitted through e-bidding. | Department of Land Transport | 60 | 10.54 | 90.91 | 23.33 | 3 |
| Development of the Pracha Niwet 3 project, which involves construction of an 8-storey condominium block and other | National Housing Authority | 367 | 12.21 | 96.67 | Under construction | 3 |
| Construction of a dam and associated buildings with a storage capacity of 8.55 mn. cu.m, as part of the royally-initiated project to dam the Mae Kaem, Phrae Province. | Royal Irrigation Department | 490 | 40.66 | 96.67 | Under construction | 11 |
| Repairs to asphaltic concrete road, Ban Nong Jong Ang–Ban Chamrae (phase 1), Ban – Nong Jong Ang Muu 8 to Ban Sa Du Muu 6 | Nong Saeng Sub District Administration Organization | 12 | 0.21 | 96.97 | Completed on schedule | 3 |
| Repairs to reinforced concrete road Chor. Bor. Thor. 97–001, Ban Hua Thanon –Ban Plaeng Krathin (Phase 1) | Hua Thanon Sub District Administration Organization | 7 | 0.15 | 96.67 | Under construction | 3 |</p>
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Ministry/agency responsible</th>
<th>Budget (Mns. Baht)</th>
<th>Price competition (%)</th>
<th>Data disclosure (%)</th>
<th>time overrun</th>
<th>No. of tenders submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrades to the Sa Phleng - Sai Ngam road, Phimai District, Nakhon Ratchasima</td>
<td>Phimai Sub District Administration Organization</td>
<td>9</td>
<td>7.10</td>
<td>93.33</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Improvements to road surface of road Khor. Gor. Thor. 39-001, Ban Kraduang -</td>
<td>Pa Ma Nao Sub District Administration Organization</td>
<td>8</td>
<td>33.79</td>
<td>93.33</td>
<td>5.00</td>
<td>13</td>
</tr>
<tr>
<td>Ban Kham Hua Chang, Pa Ma Nao, Ban Fang District, Khon Kaen</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Repairs and resurfacing of reinforced concrete road Chor. Mor. Thor. 1-0020</td>
<td>Chiang Mai Provincial Administrative Organization</td>
<td>10</td>
<td>33.89</td>
<td>93.33</td>
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<td>7</td>
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<td>(Ban Pak Thang Saluang Mor. 7,</td>
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</tr>
<tr>
<td>Competitive bidding for repairs and resurfacing of asphaltic concrete road Mor.</td>
<td>Mae Tao Sub District Administration Organization</td>
<td>9</td>
<td>0.79</td>
<td>90.91</td>
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<td>2</td>
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<td>Tor. Thor. 001</td>
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<tr>
<td>Repairs to reinforced concrete road and drainage system Por. Khor. Thor. 40-003</td>
<td>Pak Nam Pran Subdistrict Administration Office</td>
<td>9</td>
<td>5.74</td>
<td>100</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Ban Morbia-Ban Prue Noi Muu 2, Tambol Pak Nam Pran, Prachuap Khiri Khan Province</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Competitive bidding for repairs to asphaltic-concrete road Nor. Sor. Thor. 35-001</td>
<td>Tha Ruea Subdistrict Administration Office</td>
<td>9</td>
<td>0.92</td>
<td>87.88</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Nakhon Si Thammarat Province</td>
<td></td>
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</tr>
<tr>
<td>Competitive bidding for upgrades to Thale Noi market, Tambol Thale Noi, Amphoe</td>
<td>Thale Noi Subdistrict Administration Office</td>
<td>14</td>
<td>0.18</td>
<td>97.00</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Khuan Khanun, Phatthalung Province</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Competitive bidding for construction of rubber-asphaltic road Tor. Gnor. Thor. 86-011</td>
<td>Wangkiri Subdistrict Administrative Organization</td>
<td>9</td>
<td>0.17</td>
<td>87.88</td>
<td>23.33</td>
<td>2</td>
</tr>
</tbody>
</table>
3.1 Assurance Process

Assessing the project

Stage 1

Operating guidelines
1. Information is collected from the 40 datapoints submitted by the procuring entities, and this is then analyzed.
2. Additional information is gathered from procuring either entities document or in-person
3. Secondary data (from the news) is also assembled and collated.

Outputs
1. Six aspects of analyses will be generated, which are
   1. project preparation, 2. procurement and contract
   3. management 4. quality of construction work,
   5. adherence to health and safety 6. standards and safety guidelines.
2. Suggestions for project implementation will also provided.

Results
As a result of the process, it should be possible to answer the following questions:
1. Should the project have been carried out?
2. Was the procurement process implemented fairly?
3. Was the construction contract completed efficiently and effectively?
4. Was the construction work completed to an acceptable standard?
5. Did an effective complaints procedure operate within this project?

Outcomes
The process will yield lessons learned from the project’s implementation, which can then be applied to future construction projects.

Stage 2

Operating guidelines
1. The construction site will be inspected and should comply with construction standards.
2. The assurance team should appraise the extent of any problems and obstacles affecting the project’s implementation.

Outputs
1. Guidelines for solving problems that arise during project implementation.
2. Construction standards that are based on engineering principles and industry safety standards.

Outcomes
The process will yield lessons learned on project management, which can then be applied to future infrastructure construction projects.
Communications channels that facilitate contact between procuring entities and other stakeholders should be created to help overcome problems that will naturally develop during project implementation. These communications channels will thus act as an intermediary between the two parties, helping to remove obstacles as they arise and so cut down on delays and smooth the progress of the project.

Phase 3.2 Collecting stakeholders’ opinion on the project

Public opinions are collected through a questionnaire, which assesses four aspects of the public’s confidence on the project:

1. Confidence in the project’s value for money (value)
2. Confidence in the transparency of project procurements (transparency)
3. Confidence in the efficiency of the construction process and the contractor’s ability to meet construction standards (efficiency)
4. Acknowledgement about how to communicate with procuring entity or to report problems with it (accountability)

Assurance Team a will assessed and evaluated the public’s confidence in and opinions of the project, it will then be possible to apply these findings to future endeavors, has hopefully improving their operations and outcomes.

Note: Following the outbreak of Covid-19 worldwide and the imposition of social distancing measures domestically, it was not possible to assemble a large number of people when administering project surveys.
Project 1

Flyover construction project at Bor Win Industrial Estate intersection/Eastern Seaboard /Amata City and Pak Ruamjunction, Chonburi

Procuring entity: Department of Highways

Project details
Expand the roads covered by the project from 6 lanes to 8-12 lanes and construct a flyover across the intersection. This will reduce the accident rate, increase traffic flow and provide the greater capacity required by the expansion of the nearby industrial estate.

Budget
3,900,000,000 baht

Focal price
3,896,288,547.96 baht

Value of contracts
3,465,645,159 baht

Procurement
4 companies participated in competitive bidding for the project, with 11.05% price competition.

Project status
Completed 95.98%
Planned 90.46%

Project implementation
Overall, the project was well managed and it is forecast to be completed 2-3 months ahead of schedule. Problems that arose during project implementation were also solved in a timely manner.

Problems
Stakeholders complained about the state of the road, which in some areas was badly damaged and subject to flooding following rain.

Solutions
Government agencies coordinated with contractor to address problems with flooding, and repairs were made that allowed rainwater to be dispersed.

Respondents
15 individuals
2 female
13 male
with an average age of 37
All respondents believed that the project generated benefits for the locality because it has helped to support an expansion in the size of the local community and the industrial estate. As a result of the road development, people will be able to travel and transport goods safely, quicker and more conveniently.
The project was divided into 4 separate contracts, but the winning bid for contract no.1 came in at a price that was significantly below the focal price, the contractor was unable to complete the work, resulting in the contract being cancelled. Contracts no.2, no.3 and no.4 that were an average of 30% below the focal price.

The government agency coordinated with contractors to infill the road surface (so raising its height) and to make sure that the area was sprayed with water more frequently.

A contractor of contracts no.1 and no.2 was unable to complete the work, the Procuring entity agency had to step in and take over this share of the project, adding 522,000,000 baht to the total costs. Contractors of contracts no.3 and no.4 also encountered labor shortages, while designs for a bridge across the canal had to be adjusted.

Problems with extended travel times grew out of the removal of the bridge, which then made it necessary for drivers to take a diversion along a longer route that was in a poor state of repair.

Problems with entering and exiting houses were caused by differences in the height of houses and the construction zone, which also turned to mud during the rainy season.

The project was implemented by tripling the capacity of the Rama 1 canal from 400 cu.m. to 1,200 cu.m. to reduce flooding in the area.

Procuring entity: Royal Irrigation Department

Procurement

4 separate contracts were awarded for this project, involving 3 different contractors. As such, the contractors had to coordinate their activities and to ensure that the canal could be used to its full potential, they had to make sure that their work was completed as in the same time. However, work on contracts no.1 and no.2 (undertaken by the same contractor) was not completed.

The project was divided into 4 separate contracts, but the winning bid for contract no.1 came in at a price that was significantly below the focal price, the contractor was unable to complete the work, resulting in the contract being cancelled. Contracts no.2, no.3 and no.4 that were an average of 30% below the focal price.

To reduce flooding in the area by tripling the capacity of the Rama 1 canal from 400 cu.m. to 1,200 cu.m.
<table>
<thead>
<tr>
<th>Questions and opinions from by the public</th>
<th>Replies by procuring entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q : Can the work be accelerated due to problems with stagnant floodwater in agricultural areas?</td>
<td>A : Pumps were brought in to help remove the excess water in order to relieve damage of flood.</td>
</tr>
<tr>
<td>Q : The community made a request to the Royal Irrigation Department to focus on the interests of local people for example the Royal Irrigation Department should solve problems in a timely manner.</td>
<td>A : The Royal Irrigation Department had accelerated the pace of work at all stages, and made sure that officials were ready to listen to the community’s problems and then address these as quickly and fully as possible.</td>
</tr>
<tr>
<td>Q : Could problems with dust be solved?</td>
<td>A : The problem was alleviated by water spraying down the area more frequently.</td>
</tr>
</tbody>
</table>

**Assurance team recommendations**

**Tender and contract award**

Procuring entity should take greater care to check the number of projects and value of the contracts already awarded to each bidders from these numbers should be compared with the capacity of bidders.

**Quality relate concerns**

A consultant should be hired to manage construction work for mid- to large-sized projects if Royal Irrigation Department has a lack of staff.

**Contract management**

Communication channels should be set up to allow people to communicate and complaints to procuring entity.

A maximum number of complaints and/or the time taken to solve these should be specified conditions for contracts cancellation.

**Does the project provides benefit to the community ?**

90% of respondents agreed that the project will be beneficial to the area by solving problems with flooding. The remaining 10% thought that the benefits did not justify the loss of local natural resources.
Construction of Nakhon Nayok bus terminal Tambol Baan Yai, Amphoe Muang, Nakhon Nayok Province. Tenders were submitted through e-bidding.

**Procuring entity**: Department of Land Transport

**Project Status**
- **Completed**: 79.64%
- **Planned**: 100%

**Budget**
- 60,000,000 baht

**Focal price**
- 62,343,000 baht

**Value of contracts**
- 55,770,000 baht

**Procurement**
- 3 bidders participated in competitive bidding for the project, with 10.54% price competition. The project thus showed a medium level of price competition.

**Project implementation**
- During the design stage of this project, the area of the bus station entrances and exits was not fully surveyed, and so the design had to be adjusted, which then caused delays to the project.

**Problems**
- Delays were caused by the contractor beginning work behind schedule due to initial problems with relocating labor. At present, the work remaining to be completed is mostly laying road surfaces around the terminal and installing fixtures and fittings.

**Issues raised by the public**
- Most of residents of Nakhon Nayok province did not know that the bus station will be moved or where the new station would be located.
- The residents would like the transport options to be extended to include services running to and from a wider range of locations, especially tourist areas. Members of the public requested that better and clearer signage be installed in the new station.
- Some people still do not know that the bus station will be moved and so it is worried that travel would become more difficult for some people.
- People request for complaint point small garden and good toilets for the new station.

**Solutions**
- Officials from the Department of Land Transport have agreed to increase their public relations efforts to ensure that the public are fully informed about the new station. The Department has also asked Stakeholders to meet regularly with officials so that the latter can listen to the former’s problems and ideas.

**Respondents**
- 9 individuals
- 8 females
- 1 male
- with an average age of 57
All respondents agreed that the project will be beneficial to communities. The new bus station has resulted in better quality, safer and more convenient services, and this has boosted tourism, in the process helping the local community and economy to grow.

### Assurance team recommendations

**Project preparation**

Bus stations should be designed using common standards, but in each case, the design should also take into account current and anticipated demand, and vehicle and passenger numbers. When applying designs to the site, the site’s particular features should also be incorporated into the plans while these are still at the design stage, thus avoiding the need for changes to these once building work is underway, which risks causing project overruns.

**Contract management**

This project is necessary for the province in order to reduce problems with public transport but it was managed by the provincial office of the Department of Land Transport, which is lacked of the project engineer. Officials also rushed through completion of the project, and these factors may lead to the work being sub-standard. It would thus have been better for the procuring entity to hire a consultant for this project.

### Does the project provide benefits to the community?

All respondents agreed that the project will be beneficial to communities. The new bus station has resulted in better quality, safer and more convenient services, and this has boosted tourism, in the process helping the local community and economy to grow.
Development of the Pracha Niwet 3 project, which involves construction of an 8-storey condominium block and other

Procuring entity: National Housing Authority

Project Status

Completed: 26.17%
Planned: 69.92%

Budget
367,000,000 baht

Focal price
367,000,000 baht

Value of contracts
305,986,000.00 baht

Procurement

Since this is a large-scale project, the whole development was split into 2 phases. This then allowed some units to be sold to buyers without needing to wait for the entire project to be completed, while also helping to prevent project overruns.

Problems

Delays have been caused by:
1. Labor shortages.
2. The outbreak of Covid-19, which then caused supply disruptions because manufacturers temporarily halted production of construction materials.
3. The need to remove old pipes and sewerage systems on-site.

Solutions

After listening to complaints from members of the public, officials addressed these and then further helped members of local communities by arrange the activity between them more frequently.

Issues raised by the public

People complained about dust, noise and damage to nearby buildings as a result of the construction work, but officials rectified these problems as quickly as possible.

Respondents

5 individuals
2 female
3 male
with an average age of 48
All respondents agreed that the project had positive consequences and that because it helped to stimulate the local economy and expand the local community, it was strongly beneficial for local people.
Project 5

Construction of a dam with a storage capacity of 8.55 mn. cu.m, and associated buildings as part of the royally-initiated project

Procuring entity: Royal Irrigation Department

Project Status

- Completed: 26.04%
- Planned: 55.59%

Budget

- 490,000,000.00 baht

Focal price

- 461,539,573.52 baht

Value of contracts

- 273,880,170.15 baht

Procurement

- 11 bidders participated in competitive bidding for the project, with 40.7% price competition. There was thus a great deal of interest in participating in this scheme.

Problems

1) If permission for the redesign of the road and watercourse is rejected, this will delay the project by another year.
2) Land expropriation fees of 120,000,000 baht are not paid yet.
3) The outbreak of Covid-19 has caused delays to construction work and at present, only 25% of the dynamiting work has been completed.

Solutions

Officials moved to address these problems by preparing a reserve budget, thus allowing initial payments to be made to those waiting for compensation.

Project implementation

On surveying the area, it was discovered that the site of the sluice gates could support a maximum weight of 18 tonnes, whereas the gates that had been designed weighed 20 tonnes. It has thus been necessary to redesign the road and watercourse, and it is proposed that these be relocated to the road.

At present, permission for this change is being considered from the Department of Highways.

Issues raised by the public

- Many landowners are still waiting for compensation payments for expropriated land, and some plots have incorrectly been excluded from the list of areas to be surveyed and compensated.
- People asked that the area be sprayed with water more frequently so that problems with dust are reduced, and many expressed worries that lorries driving in and out of the area at high speed would cause an accident.
- Farmers have suffered losses to their crops due to the increase in water stored, and the only intermittent release of water for use in the building work has caused crop losses.

Respondents

- 15 individuals
- 6 female
- 9 male

with an average age of 61
The majority of respondents agreed that because the project would help to implement a sustainable solution to problems accessing water during the dry season, the reservoir would generate benefits for the local area.

<table>
<thead>
<tr>
<th>Questions and opinions from by the public</th>
<th>Replies by procuring entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q : When would those in Moo 7 receive their compensation payments?</td>
<td>A : Officials had already submitted the necessary information but budget allocations had yet to be made. Nevertheless, they confirmed that a portion of the outstanding payments would be made no later than August.</td>
</tr>
<tr>
<td>Q : Members of the public were worried about dust and the risk of accidents from construction vehicles driving at high speed</td>
<td>A : Officials have instructed the contractor to spray water on the site more often and to ensure that drivers show greater care and consideration.</td>
</tr>
<tr>
<td>Q : The public requested that officials release water fairly and equitably because as it was, this happened only infrequently and was in insufficient quantities to support farming activities.</td>
<td>A : At present, officials need to retain some water to use in the construction work but as soon as this is finished, water will be distributed to local communities as normal.</td>
</tr>
<tr>
<td>Q : Ban Mae Kaem was still not connected to the water main.</td>
<td>A : Officials will investigate and implement a solution.</td>
</tr>
</tbody>
</table>

Assurance team recommendations

**Project preparation**

- Compensation for those who have their land expropriated could be paid at a level that is higher than the appraisal value of the land, or officials could provide these individuals with alternative plots for agricultural use.
- There should be a new survey on individuals who have had land expropriated but who had not been included in the register of those eligible for compensation. A count of these individuals should be made and appointments made for landowners to join officials in surveying their land.
- Bureaucratic conflicts should be avoided and so state officials should establish clear paperwork trails when dealing with other agencies. This is especially the case for land-use permissions that extended into overlapping agency remits.

**Contract management**

- A water management committee should be established that is composed of residents of the reservoir area and those who are losing their land to flooding.
- An official request should be sent insisting that the contractor speed up work on the project by bringing in the requisite machinery and labor and setting this to work without delay.
- A working group should be established to investigate the problems experienced by local communities.

**Does the project provide benefits to the community?**

The majority of respondents agreed that because the project would help to implement a sustainable solution to problems accessing water during the dry season, the reservoir would generate benefits for the local area.
Repairs to the asphaltic concrete roads, Ban Nong Jong Ang–Ban Chamrae (phase 1), Chainat Province

Project details
Resurface 3,070 meters of a 6-meter-wide road to a thickness of 0.05 meters, plus the 1.00-meter-wide hard shoulders on either side, giving a total area of at least 24,560 sq.m., and in addition, install level-3 reinforced steel culverts.

This road connects to other districts in Suphanburi province and on to nearby provinces.

Budget
12,415,000.00 baht

Focal price
12,120,870.57 baht

Value of contracts
12,095,960.00 baht

Procurement
4 bidders participated in competitive bidding for the project. The winning contract had a value of 12,095,960.00 baht, 0.20% lower than focal price, indicating that there was a very low level of competition for this project.

Project implementation
As in fact carried out, the construction work did not alter the camber of the road (the project applied the normal camber for 2-lane roads, with a higher central area that drops off to either side). The installed culverts were also sub-standard.

Solutions
Although work on the project commenced behind schedule, the contractor had access to sufficient machinery and worked every day, thus ensuring that the works were completed ahead of the deadline.

Issues raised by the public
Local people asked the Nong Saeng Sub District Administration Organization to provide lighting along the length of the road so that driving at night would be easier and safer. They also requested that the weight of vehicles using the road be restricted so that its lifespan might be extended.

Respondents
15 individuals
6 female
9 male
with an average age of 55
All the respondents agreed that because the new road can provide convenience and safety to use, its development yielded benefits for the area. In addition, the improved drainage of rainwater also helped to reduce earlier problems arising from flooding of the road surface.

**Assurance team recommendations**

<table>
<thead>
<tr>
<th>Question</th>
<th>Reply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q : People asked officials to ensure that heavy goods vehicles not be allowed to use the road.</td>
<td>A : Heavy goods vehicles will be instructed to use alternative routes.</td>
</tr>
<tr>
<td>Q : A request was made to extend the exits of the storm drains by another 200 meters.</td>
<td>A : Officials are happy to consider this and possibly make budget allocations to pay for it.</td>
</tr>
<tr>
<td>Q : Why do officials release floodwater that collects on the road surface onto farmland?</td>
<td>A : This is a short-term solution and officials are trying to institute a longer-term solution as speedily as possible.</td>
</tr>
<tr>
<td>Q : Would it be possible to install lighting along the road?</td>
<td>A : Officials will put this suggestion into practice.</td>
</tr>
</tbody>
</table>

Does the project provide benefits to the community?

All the respondents agreed that because the new road can provide convenience and safety to use, its development yielded benefits for the area. In addition, the improved drainage of rainwater also helped to reduce earlier problems arising from flooding of the road surface.
Construction of reinforced concrete rural road Chor, Tambol Monthong, Chachoengsao Province

Project details
Construct a reinforced concrete road with a width of 6 meters, a length of 2,110 meters and a depth of 0.15 meters, together with a 0.50-meter wide gravel hard shoulder, thus yielding a total area of at least 12,660 sq.m. This road is built with the intention of facilitating the transport of agricultural and industrial goods produced in the area, which the road will make safer and easier.

Budget
9,687,000 baht

Focal price
9,672,958.16 baht

Value of contracts
7,547,000 baht

Procurement
3 bidders participated in competitive bidding for the project, and the winning bid was 18% below the focal price. At this price, it will be possible to complete the project, and price competition was also at an appropriate level.

Project implementation
- The road was excavated to install the culverts and there is a risk that this will cause the drains to collapse, which would then severely damage the road.
- The level of the drain exits was not well calculated when they were installed.
- The thickness of the concrete road surface may not be appropriate for its intended uses.

Issues raised by the public
Using the road is inconvenient because construction materials are left on the roadside, while the road surface is higher than the residential areas. Members of the public thus asked that the road slope be reduced and that the weight of trucks using the road be limited.

Respondents
18 individuals, 8 female, 10 male, with an average age of 60
All respondents agreed that the project resulted in positive benefits for the local area. This was because the improved road made travel both safer and more convenient, and it was now possible to move locally-grown agricultural product out of the area more efficiently.

Questions and opinions from the public:

Q: People were worried that culverts might collapse.
A: The culverts definitely will not collapse because they have been placed on strong supports.

Q: Would it be possible to reduce the height difference between the road and nearby houses since at present it is difficult to drive on to and off the road from the local community?
A: Officials will move forward with this as requested.

Q: What is the weight capacity of the road?
A: The road can carry weights of up to 21 tonnes.

Q: How long will this road last?
A: The road will have a working life of 10–12 years, if the local community helps with its maintenance.

Assurance team recommendations:

Project preparation:

When evaluating the suitability of projects such as this, rather than being guided only by the opinions of the local community and officials, basic economic factors should also be taken into consideration.

Quality relate concerns:

The decision to use 15cm-thick concrete was considered based on road-building standards but without reference to the volume of traffic vehicle or type of traffic that is expected, and so it is possible that this decision may be inappropriate for the actual uses to which the road is put.

When determining the level of the sub-road drainage pipes, local communities (especially land or property owners) should first be consulted about their needs to ensure that discharged water flows in the correct direction.

The drainage system did not effectively meet the goals of the project, possibly because bid submissions did not include its design and specification.

Contract management:

Construction work should be both closely monitored and accelerated to ensure that it is completed on schedule.

Monthong Sub District Administration Organization and local communities should work together to ensure that heavy goods vehicles do not use this as a shortcut to nearby main roads.

Does the project provide benefits to the community?

All respondents agreed that the project resulted in positive benefits for the local area. This was because the improved road made travel both safer and more convenient, and it was now possible to move locally-grown agricultural product out of the area more efficiently.
Repairs to reinforced concrete road Chor. Bor. Thor. 97-001, Ban Hua Thanon –Ban Plaeng Krathin (Phase 1), Chonburi Province

Procuring entity:
Hua Thanon Sub District Administration Organization

Project details
Phase 1 of repairs to a road with a width of 8 meters, a length of 1,090 meters and a depth of 0.20 meters, thus yielding a total area of at least 8,720 sq.m. Road repairs will facilitate the transit of agricultural goods and make travel in the area more convenient.

Budget
7,291,000.00 baht

Focal price
6,970,658.00 baht

Value of contracts
6,960,000.00 baht

Procurement
3 bidders participated in competitive bidding for the project, but the winning bid was only 0.15% below focal price, while the other 2 bids were priced very close together, indicating that there was almost no price competition on this bid.

Project implementation
Quality control on the projects was managed by engineers from Hua Thanon Sub District Administration Organization, while to ensure that the project meet official building standards, officers from the Department of Rural Roads in Chonburi Highways carried out tests of construction and other materials.

Problems
1) Dust was generated by the construction work, which was suppressed with the use of water-spraying trucks.
2) Warning signs were erected in the construction area only during working hours.

Solutions
Officials worked with the contractor to increase the frequency with which water-spraying trucks were used to suppress dust.

Issues raised by the public
This road lacks illumination and traffic signs. To increase travelers’ safety, requests were therefore made that officials should seek the funds necessary to install lights along the length of the route and to put up traffic signs.

Respondents
16 individuals (12 male, 4 female) with an average age of 52
All respondents agreed that the project has helped local communities. The improved road makes personal travel and the transport of agricultural goods quicker, safer and more convenient.

### Assurance team recommendations

#### Health and safety issues

Design of the road did not take into account road safety considerations so training on this should be arranged for officials.

#### Project preparation

Before the design process begins, the area should be surveyed to provide clear data on road use. In addition, those responsible for the design process should be trained so that they have the requisite knowledge and skills to design roads and to choose and apply the suitable building standards for the area.

Before implementation, the suitability of road developments should be assessed with regard to traffic volume, the types of vehicles using the road and local driving behavior. This would then allow road designers to better assess the type of road required.

#### Contract management

After repairs, in many places, the new road level was higher than entrances to houses or alleyways. Hua Thanon Sub District Administration Organization should therefore investigate what is required by local communities and build slopes into and out of houses and alleys.

Hua Thanon Sub District Administration Organization should negotiate with the contractor to extend the hard shoulder, which could be constructed from the waste materials generated during the road resurfacing.

The Sub District Administration Organization should also try to secure the budget necessary to provide roadside illumination, and to install road signs and speed bumps.

### Does the project provide benefits to the community?

All respondents agreed that the project has helped local communities. The improved road makes personal travel and the transport of agricultural goods quicker, safer and more convenient.

---

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q : How will damaged water pipes be prepared?</td>
<td>A : Officials will swap all pipes with replacements made from metal-covered PVC.</td>
</tr>
<tr>
<td>Q : Will the road be able to carry the weight of heavy truck?</td>
<td>A : The project has been carried out according to the specifications of the Department of Rural Roads so it will definitely be suitable for use by heavy trucks</td>
</tr>
<tr>
<td>Q : Can the hard shoulder be extended?</td>
<td>A : Officials will compact an additional area so that it can function as a hard shoulder.</td>
</tr>
<tr>
<td>Q : What have government agencies done to prevent accidents in the area of construction, especially near the school?</td>
<td>A : Traffic cones have been put in place to reduce the speed of traffic passing the school.</td>
</tr>
</tbody>
</table>
### Project 9

**Upgrades to the road linking Sa Phleng and Sai Ngam, Phimai District, Nakhon Ratchasima**

**Project details**

Expand a two-lane asphaltic concrete road with a depth of 0.05 meters, a length of 550 meters and a total area of at least 6,600 sq.m. raise the road level. The road will develop travel connections to tourist attractions in Amphoe Muang Phi Mai, reduce the accident rate and improve the area’s visual appeal.

<table>
<thead>
<tr>
<th>Budget</th>
<th>Focal price</th>
<th>Value of contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,920,600.00 baht</td>
<td>9,920,447.49 baht</td>
<td>9,216,050.50 baht</td>
</tr>
</tbody>
</table>

**Procurement**

51 companies requested bidding documents for this project but only 2 submissions were received. The winning bid was priced 7.12% below the focal price After site visit, it is clear that construction as per the project specifications would be problematic, which may explain why so few companies pursued their initial interest.

**Procuring entity:**
Phimai Sub District Administration Organization

**Project Status**

- Completed: 30%
- Planned: 95%

**Project implementation**

More thought should have been given to how the project could have been divided into separate phases since as it was, only a single payment was made for the entire work schedule. The contractor thus needed to have greater financial reserves than is normally the case, and this may have encouraged them to rush to complete the work and so reduce their costs.

**Problems**

1. There were both small and large trees growing in the traffic island but the lack of clarity in the designs produced by the procuring entity mean that on completion of the construction work, there may be difficulties in deciding whether the contract conditions have been fully met.
2. This project involves the construction of a new road bed, which means that building work will take longer than normal, and officials should thus pay closer attention to compaction of the road’s foundations.

**Solutions**

Officials have acknowledged the public’s complaints and are investigating how best to resolve these issues.

**Issues raised by the public**

- The trees already growing in the area should not be cut down.
- Construction of the curve in the road has had effects on people living nearby.
- Lighting should be installed since the area is dark at night.
- Drainage, signage and warning lights are insufficient.

**Respondents**

39 individuals, 30 female, 9 male with an average age of 54
All respondents agreed that the project produced positive benefits for the area. The road will help to encourage tourism, allow traffic to flow more freely, reduce accident rates and improve the area’s appearance.

Assurance team recommendations

**Health and safety issues**

The road was designed without sufficient consideration being given to safety concerns, and so additional training on this should be organized.

**Project preparation**

The appropriacy of the road development should be identified before the project is undertaken. This should include investigating the expected volume of traffic, the type of vehicles expected on the road and the general driving behavior in the local area.

Officials should estimate the tangible benefits of the project both before and after its completion.

**Contract management**

Quality control could have been improved by splitting the project into phases. This would allow for testing and checking of construction quality at intermediate stages, as per recognized standards.

Phimai Sub District Administration Organization should send an official letter to the contractor requesting that work on the project be accelerated.

The Sub District Administration Organization should also request that for the remaining period of the construction work, the contractor supply water trucks to periodically spray down the area and so reduce problems with dust.

**Quality relate concerns**

The asphalt surface of the cycle path is 10 centimeters thick, which is excessive. When designing roads, consideration should be given to the anticipated weight of the vehicles that will use it, and the road thickness adjusted accordingly.
Project 10

Improvements to the road surface Ban Fang District, Khon Kaen

Procuring entity: Pa Ma Nao Sub District Administration Organization

**Project details**

Improve and expand to 5-meters wide a 5,000-meter-long section of road, with a road surface 0.04 meters deep, giving a total area of no less than 29,500 sq.m. This project is deemed necessary because the road is the main link used by both local and non-local traffic transiting to Ban Fang, and is also important for the distribution of locally-grown agricultural goods.

**Budget**

8,900,000.00 baht

**Focal price**

8,780,000.00 baht

**Value of contracts**

6,270,000.00 baht

**Procurement**

13 bidders participated in competitive bidding for the project. The winning bid was 34% below focal, and given this difference and the number of tenders submitted, price competition was fairly high. The contract was split into 4 phases, which was appropriate for the scale and value of the work to be carried out.

**Project implementation**

Progress has not been made on the project and the contractor has not moved machinery onto the construction site, despite their having sent a letter to Pa Ma Nao Sub District Administration Organization stating that they were ready to begin work.

**Issues raised by the public**

Officials were asked to put up signs or to make announcements to inform the public about the project and to recommend alternative routes (if they are available). Alternatively, during the period of construction, workers could be hired to manually direct the traffic flow.

**Complaints**

The project has not yet started, so thus far, there have been no complaints regarding to construction.

**Respondents**

22 individuals

2 female

20 male

with an average age of 59

Data as of October 15, 2020
All respondents agreed that the project will be beneficial to the area. This is a main road that has been in a state of disrepair for an extended period of time, and accidents occur regularly, so repairs to it will be most welcome.

**Questions and opinions from by the public**

<table>
<thead>
<tr>
<th>Q: The delayed start to the project may result in sub-standard work being carried out.</th>
<th>A: The contractor will certainly undertake the project, and work should be completed within 2 weeks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q: The public would like clear diversion signs to be put up and pedestrian crossings to be installed.</td>
<td>A: This will not be possible because the budget for the project does not include expenditure on this.</td>
</tr>
<tr>
<td>Q: What measures are being put in place to prevent accidents at the T-junction?</td>
<td>A: Officials have already submitted a request for the budget to put up signs, but this has not yet been approved.</td>
</tr>
<tr>
<td>Q: What will be the lifespan of this road?</td>
<td>A: The road should last for 5–10 years if it is not subjected to overly heavy loads.</td>
</tr>
</tbody>
</table>

**Assurance team recommendations**

**Project preparation**

The road design did not consider vehicle safety so additional training on this should be arranged.

The officer who responsible for road design lack of knowledge on how to design roads and this may contribute to the road having a shorter than expected lifespan. In future, training should be provided for those designing roads to make sure that they are fully informed about the topic.

Officials should assess the value for money of the project before and after its implementation, thus allowing them to make an informed judgement about whether the construction work represents good value for money.

**Tender and contract award**

To ensure that they are actually able to complete their contractual obligations, when the bid price is substantially below the focal price Contractors should be asked to explain why the gap between their tender and the focal price is so large.

The work schedule should more closely reflect the nature and extent of the construction work to be completed.

**Contract management**

An official letter from the procuring entity should be sent to the contractor insisting that they begin work without delay.

Officials should instruct the contractor that to prevent problems with dust, they should use water trucks to spray down the construction area.

Officials from Pa Ma Nao Sub District Administration Organization should erect signs and make announcements near the road informing those living in the area about the planned construction work and any potential problems that may arise from this.

**Does the project provide benefits to the community?**

All respondents agreed that the project will be beneficial to the area. This is a main road that has been in a state of disrepair for an extended period of time, and accidents occur regularly, so repairs to it will be most welcome.
## Project 11

**Repairs and resurfacing of reinforced concrete road Chor. Mor. Thor. 1-0020 (Ban Pak Thang Saluang Mor. 7, Chiang Mai)**

### Procuring entity:
Chiang Mai Provincial Administrative Organization

<table>
<thead>
<tr>
<th>Project details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expanding a 6-meter-wide road for a length of 2,975 meters and depth of 0.15 meters (there is no hard shoulder). This road has not been repaired for some time and as such, the road surface had been badly damaged. Because of this and to ensure a smooth road surface, it is necessary to repair the reinforced concrete base. This will then allow for easier travel in and out of the area.</strong></td>
</tr>
</tbody>
</table>

### Budget

<table>
<thead>
<tr>
<th><strong>Budget</strong></th>
<th>10,000,000.00 baht</th>
</tr>
</thead>
</table>

### Focal price

<table>
<thead>
<tr>
<th><strong>Focal price</strong></th>
<th>11,012,595.70 baht</th>
</tr>
</thead>
</table>

### Value of contracts

<table>
<thead>
<tr>
<th><strong>Value of contracts</strong></th>
<th>7,280,000.00 baht</th>
</tr>
</thead>
</table>

### Procurement

7 bidders participated in competitive bidding for the project. The winning bid was priced 33.89% below the focal price but the contractor pitched a low tender as a promotional move and to build a more impressive work profile because although the company had completed public-sector work in the past, this was for lower-value projects.

### Project implementation

Supervisor Engineers reported that the contractor clearly lacked the skills and expertise required for this project. This was reflected in the poor, unequal quality of work, which regularly needed to be redone.

### Issues raised by the public

- The water pipes of all houses in the area have been damaged and officials should secure the budget necessary to repair these.
- In some areas, the road surface undulated and this might cause accidents in the future.
- People asked for the approach onto the road to be made less steep near housing since the new road is 15 centimeters higher than the old one.
- It was requested that to make the route safer, officials install lighting along the road and to reduce flooding, road drainage should be expanded.
- 61.5% of respondents complained about road safety.

### Respondents

13 individuals: 1 female, 12 male with an average age of 55 years.
All respondents agreed that the project was beneficial to the local community since the road met their needs and helped to overcome some of the problems that individuals experienced when traveling in the area.

In order to evaluate whether or not the road repairs represent good value for money, officials should attempt to assess the tangible value of the project both before and after its implementation.

This road blocks the natural flow of water from one side of the road to the other, and because no drainage has been installed, in the future the road may be damaged by flooding.

To reduce the problems with dust experienced by local communities, Chiang Mai Provincial Administrative Organization should ask the contractor to use water trucks to spray the construction site for the duration of the project.

Chiang Mai Provincial Administrative Organization should install signage and make roadside announcements informing the public about the construction work and the problems that they might encounter while building work is underway.

Engineers from the Division of Public Works at Chiang Mai Provincial Administrative Organization should routinely check the quality of construction work and give clear, precise advice to the contractor on how to proceed.

When undertaking road projects that run through communities that are tightly packed against the road on both sides, either these local communities should be invited to participate more closely than normal in the project or local government agencies should be handed control of it.

All respondents agreed that the project was beneficial to the local community since the road met their needs and helped to overcome some of the problems that individuals experienced when traveling in the area.
Project 12

Competitive bidding for repairs and resurfacing of asphaltic concrete road Mor. Tor. Thor. 001

Procuring entity: Mae Tao Sub District Administration Organization

Project Status

- Completed 100%
- Planned 100%

Project details

Resurface to a depth of 5 centimeters an asphalt concrete wearing course over an area of at least 30,975.00 sq.m. The new surface is to be laid over the old concrete road, with the goal of strengthening the road and making travel more convenient and safer.

Budget

- 9,898,000.00 baht
- 9,191,825.02 baht
- 9,119,217.00 baht

Focal price

- 9,191,825.02 baht

Value of contracts

- 9,119,217.00 baht

Procurement

2 bidders participated in competitive bidding for the project, while the winning bid was priced only 0.79% below the focal price.
The schedule of works was split into 2 phases, which was too few, and if the work had been divided into a greater number of stages, this might have attracted more bids.

Project implementation

The major concern with this project is that because the old road surface had not been well repaired, laying a new surface directly on top may cause damage to occur more rapidly than it would otherwise.

Issues raised by the public

People requested the installation of a central guardrail, convex safety mirrors, speed humps and warning lights. They also asked that drains be raised to the level of the road.

Problems

Rushing to complete this project and not fully considering the composition of the old road may result in the work being of a lower standard than it should be, and future damage to the road may occur as a result.

Complaints

No complaints were made by the public about this project.

Respondents

- 24 individuals
- 3 female
- 21 male

with an average age of 61
All respondents agreed that the project was worthwhile and that it benefited the area. This was because the improved road allowed individuals and agricultural goods to move through the area easily, safely and quickly.

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**Assurance team recommendations**

**Quality relate concerns**

Because the concrete base was still in good condition, the decision was made to lay a new asphaltic concrete road surface over the top of this, thus making travel easier and more convenient for local communities. However, laying a 5cm road surface was unnecessary and a thickness of 3-4cm would have sufficed, and had this been done, this would have allowed the project goals to be met and for a larger area of road to be repaired. This decision thus indicates that officers responsible for road design may lack the knowledge and expertise needed to complete their tasks successfully and so additional training should be provided.

The contract for this project specified that the basis for inspections would be per meter but the road width varies between 4 and 6 meters, and so the exact size of the area that was to be repaired should have been determined.

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**Tender and contract award**

Payment for work should have been split into more than a single lump sum since this would have allowed more contractors to participate in bidding.

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**Does the project provide benefits to the community?**

All respondents agreed that the project was worthwhile and that it benefited the area. This was because the improved road allowed individuals and agricultural goods to move through the area easily, safely and quickly.
Project 13
Repairs to reinforced concrete road and accompanying drainage system, Tambol Pak Nam Pran, Prachuap Khiri Khan Province,

Project details
Repair and improve the road surface of a 7-meter-wide, 794-meter-long stretch of road to a depth of 0.15 meters. This will help make travel easier and reduce the risk of the road flooding during the rainy season.

Procuring entity: Pak Nam Pran Subdistrict Administration Office

Completed
100%

Planned
100%

Budget
9,997,000 baht

Focal price
8,957,000.00 baht

Value of contracts
8,444,444.44 baht

Procurement
3 bidders participated in competitive bidding for this project. The winning bid was 5.7% below the focal price, and so this bidding process generated relatively low levels of price competition compared to those for other projects.

Project implementation
The presence of overhead electricity cables in the vicinity of site work slowed progress on the project. In addition, the installation of drains near the road junction may be problematic since this area will have to bear the heaviest weight of traffic, and so there is a risk that damage may occur to the road at this point.

Problems
Before work could begin, it was necessary to move overhead electricity cables away from the construction site and this slowed the start of operations.

Issues raised by the public
People requested that to help reduce the risk of accidents, officials should put up warning signs, install lighting along the road, and lay speed bumps. Local communities were also somewhat affected by noise pollution from the building work.

Solutions
Officials have already put in place solutions to the complaints that they have received.

Respondents
8 individuals
4 female
4 male
with an average age of 48
All respondents agreed that the project was beneficial to the local area since the road improvements helped local people travel more easily and reduced the accident rate.

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### Questions and opinions from the public

| Q: The road in 8 alley is like a mini reservoir whenever it rains, causing the road to flood and it then takes a long time for this to drain. | A: Officials will inspect the area to see what needs to be done to remedy this problem. |
| Q: How will excessive noise from the construction site be managed? | A: The contractor is restricted to working between 8.00am and 5.00pm. |
| Q: People were worried that the contractor would lay pipes in private areas, causing damage to house walls. | A: Officials will inspect the area. If the walls are in the area of the road, they will have to be removed but if they are not, the contractor will pay compensation. |
| Q: Would it be possible to install lighting along the road so that it is safer at night? | A: Officials have instructed the contractor to do this. |

### Assurance team recommendations

#### Project preparation

An initial inspection of the blueprints for this project indicates that it was not designed with road safety in mind, and so training in designing to maximize safety should be arranged. In addition, deceleration device should have been given to the use of speed calming measures, such as installing rumble strips, speed bumps, and putting up speed limit and warning signs.

#### Quality relate concerns

The original asphalt road was generally in a good condition, with damage limited to only a few areas that did not impact the underlying structure. Thus, it would have been better to resurface using asphalt since this would have saved money or allowed a greater area to be repaired.

#### Contract management

A site survey revealed that the intakes to the road’s storm drains were very small, but the road is surrounded by gardens and farmland and so there is a very good chance that fallen leaves will block these, causing the road to flood and damaging it in the process. To solve this, new and larger openings should be designed and installed, and generally, water management systems should be planned more systematically.

### Does the project provide benefits to the community?

All respondents agreed that the project was beneficial to the local area since the road improvements helped local people travel more easily and reduced the accident rate.
**Project 14**

Repairs to asphaltic-concrete road Tambol Tha Ruea, Amphoe Mueang Nakhon Si Thammarat, Nakhon Si Thammarat Province

**Procuring entity:** Tha Ruea Subdistrict Administration Office

**Project details**

Improve the surface of a length of road 6.00 meters wide and 2,900 meters long to a depth of 0.05 meters (the road has no hard shoulder). The road is in the area of Moo 14, Ban Jang Hoon and Moo 12 Ban Nong Non, and is used to travel to Amphoe Muang and on to other provinces.

**Budget**

9,993,000.00 baht

**Focal price**

9,588,231.41 baht

**Value of contracts**

9,500,000.00 baht

**Procurement**

10 bidders participated in competitive bidding for the project, but 8 were excluded because they did not lodge the necessary bid guarantees and the winning bid was only 0.93% below the estimated price. In addition, the contract specified that payment for the construction work was to be made in a single lump sum, and this may have dissuaded some companies from pursuing their initial interest since they may have been on too weak a financial footing to wait until project completion for payment. Moreover, having conducted a site inspection, some companies may have decided that the difficulty of the work made bidding on it unattractive.

**Project implementation**

No progress has been made on the project, although an official letter has been sent to the contractor requesting that work commence without delay.

**Issues raised by the public**

People were worried that the contractor might not start work at all and that the road foundations would not be able to bear the weight placed upon them.

**Solutions**

Officials have written to the contractor requesting that work begin.

**Respondents**

22 individuals 6 female 16 male with an average age of 62
All respondents fully agreed that the project was useful for the local community. The road improvements will allow the easier and safer movement of people and agricultural goods, and this will add to the quality of life of local communities.
### Project 15

**Upgrades to Thale Noi floating market, Tambol Thale Noi, Amphoe Khuan Khanun, Phatthalung Province.**

**Procuring entity:** Thale Noi Subdistrict Administration Office

#### Project details

Improve the internal appearance of the floating market, and construct new roads into and around the market to raise the market’s potential as a tourist attraction within Amphoe Khuan Khanun.

<table>
<thead>
<tr>
<th>Project implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a problem with how the work schedule had been specified because generally, when infilling land, both the total area of the infill and the height to which the land is raised need to be considered, but the schedule of works for this project stipulated only the area, which led to problems with judging whether this phase was complete.</td>
</tr>
</tbody>
</table>

#### Budget

| Budget | 14,370,000.00 baht |

#### Focal price

| Focal price | 14,164,852.70 baht |

#### Value of contracts

| Value of contracts | 14,140,000.00 baht |

#### Procurement

17 companies requested bidding documents but only 2 submissions were made. The winning bid was just 0.18% below the focal price, indicating extremely low levels of price competition.

#### Problems

According to the schedule, work should be at phase 9 but so far, only phase 6 has been reached, that is, installation of a drainage ditch. However, although work has been delayed by the rainy season, the contractor is confident that it will be completed on schedule.

#### Issues raised by the public

1. **How will the market be managed** and **how will space be allocated between members of the community and commercial interests?**
2. **Will it be possible to open the market by December 2020?**
3. **Could officials arrange PR for the market and erect signs pointing to and promoting the market to tourists?**
4. **Could training in online marketing** be arranged for sellers?
5. **People complained** about dust being generated by the construction work.

#### Solutions

Officials have asked the contractor to spray down the area with water at least 3-5 times a day.

#### Respondents

21 individuals

11 female

10 male

with an average age of 61
All respondents agreed that the market development will have good outcomes for the local community. The new market will help to create employment and business opportunities and it is expected that it will help to boost local tourism.

**Assurance team recommendations**

**Contract management**

To avoid generating problems with meeting completion targets, the work schedule, and especially the infilling of land, should be laid out in line with general construction principles. As it was, the way the contract specified the requirements for infilling and land-raising caused problems with how completion and inspection was to be handled.

The work on infilling and land-raising was divided into too many phases, and the project management team should have had fewer of these, which would then have made it easier for the contractor to complete the work as specified.

By consulting a large number of stakeholders and individuals in organizations that had carried out similar projects, the project management team have been able to successfully plan and implement the market renovation. This is then leading to a successful outcome for the development, which once it is modernized, will express its own unique characteristics and selling points. In its new form, the market will help to promote locally-produced goods and the local culture, and this will in turn reduce future risks to business owners in the community.

**Does the project provide benefits to the community?**

All respondents agreed that the market development will have good outcomes for the local community. The new market will help to create employment and business opportunities and it is expected that it will help to boost local tourism.
Procuring entity: Wangkiri Subdistrict Administrative Organization

Project implementation

Procuring entity had no experience managing the construction of this kind of road. Officers thus sought advice from the Department of Rural Roads.

Issues raised by the public

- Worries were expressed over the quality of the infill.
- Would it be possible to install speed bumps or rumble strips near the entrance to the community and around the temple?
- Could lighting be installed along the construction site?
- Could a convex safety mirror be installed near the intersection?
- Would it be possible to put in warning lights near the intersection?
- People also complained the project made travel inconvenient and that there were problems with the selection criteria for participation in the public forum.

Respondents

13 individuals
6 female
7 male
with an average age of 55

Problems

The contractor began work 38 days late, and this is still only at the stage of negotiating over the removal of overhead electricity lines. The project is therefore expected to be completed a month behind schedule.

Procurement

46 companies requested documentation relating to the project but only 2 submitted tenders and the winning bid was only 0.01% below the focal price. There was thus a very low level of price competition on this project. In addition, payments, was being made in a single lump sum and so it is difficult to evaluate the extent to which the project has been delayed.

Solutions

Officials were negotiating with the contractor to revise the work schedule and they insisted that the community had the right to attend their meetings.

Project status

Completed 12.48%
Planned 70%

Budget

9,890,000.00 baht
Focal price
9,436,210.01 baht
Value of contracts
9,420,000.00 baht

Project details

Construction of a 6-meter-wide road with a length of at least 1,568 meters, and a 1-meter-wide hard shoulder on each side. The road runs between Ban Khao Kaeo and Ban Khuan Miang, and its construction will make travel easier and safer for those in this area.

Data as of October 15, 2020

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Solutions

Officials were negotiating with the contractor to revise the work schedule and they insisted that the community had the right to attend their meetings.

Respondents

13 individuals
6 female
7 male
with an average age of 55
All respondents agreed that the project generated benefits for the local area since it provided the community with a high-quality road to use when traveling and transporting goods, thus making travel easier, quicker and safer.
Assurance site visits show that the majority of problems originated from a mismatch between the projects’ initial goals and the benefits that they in fact yielded. In addition, quality control was also a significant issue, while problems related to the environment, and health and safety were worryingly high due to the tendency of contractors and procuring entities to neglect issues relating to dust, disruption to traffic and the need to reduce the accident rate for construction work.

### Summary of public opinions

- **Health and safety issues**: 16.67%
- **Security issues**: 16.67%
- **Quality-related concerns**: 20%
- **Project preparation**: 15%
- **Tender and contract award**: 20%
- **Contract management**: 11.67%
In terms of the population sampled, this was split 3:2 between men and women, which is a more representative sample than in the past, while the average age of participants put them in the ‘active aging’ group of over-50s.

**Overall impressions**

- The public overwhelmingly agreed that the projects represented value for money and that they were highly effective (the positive response rate was over 95%).
- 78.5% of the public were confident in the tendering process.
- Unfortunately, most of those who gave their opinions on projects were from older demographics and so the CoST Thailand needs to make greater efforts to encourage participation by members of all age groups.

- The public were confident in the implementation of overall projects.
- 41.83% of respondents knew how to make formal complaints.
- 78.28%

It is extremely important that officials managing projects communicate effectively with the public, especially with regard to how to make complaints or express concerns since this is a priority in encouraging public participation.
Recommendations regarding improvements to the implementation of public sector construction projects are determined by the integration of the theory of change and the operation of infrastructure construction projects in Thailand and the achievement of mid-term outcomes.

Policy

Policy should be revised to improve the potential quality of both construction work and project management.

Procedure

Procedures should be overhauled to reduce the quantity of mistakes generated in project management.

Participation

Participation should be encouraged as a way to reduce the number of obstacles faced by projects and to increase public perception of public-sector construction work.
Recommendations: Policy

Considering projects on a budgetary basis may be inefficient and may cause discontinuities in local development. It would instead be better to consider these in light of engineering factors and the needs of local communities.

Two different problems related to the division of contract work/payment schemes have been seen:
1) There may be only a single payment, and in this case, there should be guidelines on how to subdivide work/payment schemes.
2) The contract specifies multiple work/payment phases but officials are slow to make payments. In this case, official disbursements should be speed up.

Local government organizations tend to use standardized guidelines when designing roads, and the application of these without regard to the anticipated traffic volume or the local construction conditions often results in the overspecification of road building projects. Local government civil engineers should thus receive additional training in how to design roads that are more suited to their particular use.

Given the delays experienced on many projects, it appears to be the case that:
1) Contractors may take on more work than they can comfortably handle.
2) Contractors may simply not have the capacity to complete the contract. Thus, consideration needs to be given to developing guidelines or policies that allow for the rating of contractors.
Recommendations: Procedures

**Procedural guidelines**

- The project’s justifications should be fully researched and specified, and appropriate indicators have to be developed.

**Recommendation**

- Specify appropriate indicators for the project goals
- Collect data on the progress of the project to be used in analysis of its outcomes or to support other relevant data.

**Guidelines should be established to help prevent technical problems occurring that undermine project quality.**

- Risk factors should be assessed.
- Officials responsible for project management should receive training to make sure that they have the requisite knowledge.
- Assistance with technical matters should be sought from local colleges and other organizations in the area.

**The coordination and negotiation of inter-agency work on construction projects should be improved.**

- On large-scale projects, representatives from each government agency involved should be appointed so that procedural guidelines can be established and implemented.
- On small-scale projects, requirements should be negotiated with agencies responsible for managing public utilities before the main construction work begins.

**Technical problems arising from project implementation**

- Specify appropriate indicators for the project goals
- Collect data on the progress of the project to be used in analysis of its outcomes or to support other relevant data.

**Coordinating work between government agencies**

- Efforts should be made to develop better communication channels connecting officials and the public because for the projects included in Assurance site visits, over 60% of respondents did not know about these.

- At present, public participation is strongest among older members of the community, so CoST Thailand needs to increase the level of awareness about projects and try to involve more individuals from younger generations.

- A mentor system should be developed to include central government departments and state enterprises as a way of increasing data disclosure rates. To increase agencies’ knowledge about CoST, this might involve the participation of ministerial-level anti-corruption centers.
Appendix

CoST lays out guidelines for the disclosure of data (Infrastructure Data Standard: IDS) by Procuring entity. These are required to be updated across the whole project lifecycle, from project identification and project preparation and procurement through to implementation and completion. Details of these 40 datapoints are given below:

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Disclosed data</th>
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<tbody>
<tr>
<td>1. Project Identification</td>
<td>1) Project owner</td>
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<tr>
<td>(6 Datapoints)</td>
<td>2) Budget</td>
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<tr>
<td></td>
<td>3) Project name</td>
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<td></td>
<td>4) Project Location</td>
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<td>5) Purpose</td>
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<td></td>
<td>6) Project description</td>
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<tr>
<td>2. Project Preparation</td>
<td>7) Project Scope (main output)</td>
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<tr>
<td>(7 Datapoints)</td>
<td>8) Environment impact</td>
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<td></td>
<td>9) Land and settlement impact</td>
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<tr>
<td></td>
<td>10) Contact details</td>
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<td></td>
<td>11) Funding sources</td>
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<tr>
<td></td>
<td>12) Project Budget</td>
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<td></td>
<td>13) Project budget approval date</td>
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<td>3. Procurement</td>
<td>14) Procuring entity</td>
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<tr>
<td>(14 Datapoints)</td>
<td>15) Procuring entity contact details</td>
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<td>16) (TOR)</td>
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<td></td>
<td>17) Procurement process</td>
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<tr>
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<td>18) Contract type</td>
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<td>19) Contract status</td>
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<tr>
<td></td>
<td>20) Numbers of firms tendering</td>
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<td></td>
<td>21) Cost estimate</td>
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<td>25) Contract price</td>
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<td>26) Contract scope of work</td>
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<td>27) Contract start date Contract duration</td>
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<td>4. Implementation</td>
<td>28) Escalation of contract price</td>
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<td>29) Variation to contract price</td>
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<td>30) Variation to contract duration</td>
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<td>31) Variation to contract scope</td>
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<td>32) Reasons for price changes</td>
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<td>33) Reasons for duration changes reasons for scope changes</td>
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<td>5. Project Completion</td>
<td>34) Project status (current)</td>
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<td>(7 Datapoints)</td>
<td>35) Completion cost (project)</td>
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<td>36) Completion Date (projected)</td>
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<td>37) Scope at completion (projected)</td>
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<td>38) Reasons for project changes</td>
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<td>39) Reference to audit</td>
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<td>40) Evaluation reports</td>
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</tbody>
</table>
Contact details

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