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Infrastructure Transparency Initiative: CoST

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Thailand is pushing forward with the implementation of the Infrastructure Transparency Initiative (CoST), and the country is moving to meet the goals of the program. Achieving this entails working with a strong emphasis on open data and encouraging public participation in creating cultures of transparency and verifiability, and with governance increasingly data-driven, this will help to lead to the development of ‘open government’. This process is in line with theories of change proposed by the World Bank, and applying these within the Thai context will assist in increasing the sustainability of long-term development, while also deepening connections between four pillars of the initiative’s mechanisms, these being: (i) disclosing information on forty data points; (ii) Assurance; (iii) specifying regulations; and (iv) Multi-Stakeholder working. This will then help to pave the way to change that will occur in three different dimensions.

Recently, 1,213 projects have data on CoST website, and 1,073 of these are during contract manage process (178 from central government agencies, 12 from state enterprises and 883 from local government projects) total bugget is 120.94 billion baht, and the difference from focal price is around 11.56% (18.22 billion baht.) Overall quantitative and qualitative disclosure rates stood at respectively 81.63% and 80.25%. The highest disclosure rate at Ministries level, it is found this

Moreover, at provincial level, the highest rate stand as
In the fiscal year 2021, the Assurance Team carried out 10 projects, Site visit and a further 136 projects were added to Site visit by Provincial office of the Comptroller General. 2,076 people participated in the CoST.

Focus on promoting change and strengthening the social contract in local communities.

This year, the process of carrying out site visit took place against the backdrop of the Covid-19 pandemic, and so, unlike in previous years, site visit had to be carried out online. Given this, a comparison of the mechanics of onsite and online audits is given below.

**Recommendations for future development**

1. **Local government budgetary allocations**
   - tend to be made in a rush, and this then means that there may be a lack of due diligence in laying out the scope and type of work to be carried out, while local surveys and consultation with local communities may also be inadequate.

2. **Technical training**
   - Technical training should be provided to engineers from the relevant government agencies who are or will be working on construction projects. This would then ensure that these engineers were equipped with the latest knowledge, technical training should be provided to government officials for tendering, making procurements and accepting deliveries so that they fully understand the regulations governing these processes.

3. **Capacity building**
   - should be provided to government officials for tendering, making procurements and accepting deliveries so that they fully understand the regulations governing these processes.

4. **Contractor Registration**
   - should consider registering contractor in and of building and museum sector.

5. **Hearing and publicizing the construction project**
   - Procuring entity should give priority to listening to the public’s views before beginning the project and during construction to mitigate problems and impacts that may be exacerbated.

Onsite Site visit

- allow Assurance Team to see clearly the state of the construction site and its links to other infrastructure projects in the same area. Onsite site visits also make it possible to arrange a venue where Assurance Team can meet members of the public.

Online site visit

- have the advantage of sidestepping the need to travel, and so are more convenient in some regards, such as for the verification of data. However, procuring entity need to prepare documents in advance and to allow Assurance Team to get a sense of the state of the construction site, they will also need to submit photographs or video.
Introduction

Infrastructure Transparency Initiative: CoST

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 by which the public may participate in the examination of data on these projects.

CoST Thailand has adopted the CoST International principals to develop a comprehensive set of tools that are used to monitor the transparency of public construction projects.

CoST was initiated in the United Kingdom and at present, there are 19 Members.

which joined the CoST program on September 22, 2014. 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.
Chapter 1

Notification of The Anti-Corruption Cooperation Committee (the A.C.C. Committee) on the topic of the Infrastructure Transparency Initiative (CoST)

And in virtue of the powers granted by article 17, paragraph 2 of the 2017 Public Procurement and Supplies Management Act, the Committee has established the CoST program as the approved means by which members of the public may participate in the auditing of public-sector procurement. 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 The obligations of stakeholders involved in the CoST program are as follows:

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 responsibility 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.

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.
state agencies should submit details of construction projects for which they are responsible and that meet the qualifying criteria.

Within 15 days of budgets being approved, state agencies responsible for the selected construction projects will prepare registration documents for the officers charged with data submission, which will then be passed to the Comptroller General’s Office, where accounts and passwords will be set up. These officers will be responsible for the project.

The state agency responsible for the project will ensure that all relevant details are entered on the CoST website.

The Assurance Team will verify the accuracy and completeness of the disclosed data.

Projects will be selected for random on-site inspection based on a range of budget project types to ensure that a spread of different types is covered.

A public forum will be established to allow members of the public and the relevant state agency to exchange ideas and suggestions.

The Anti-Corruption Cooperation Committee will confirm the audit.

The Assurance Team will select and collate the most interesting and salient information gathered from the data disclosure process, together with any suggestions.

A report on the audit will then be presented to the CoST sub-committee.
The implementation of the CoST in Thailand began with a pilot project that was run in the fiscal year 2015. Two years later, full participation CoST Thailand began with the inclusion of 12 public-sector construction projects. These had a combined budget allocation of 53.38 billion baht, and all were large-scale construction projects in terms of their budgetary requirements, their effects on the environment, their consequences for local communities, and their other impacts.

**Fiscal years 2015–2017**

The implementation of the CoST in Thailand began with a pilot project that was run in the fiscal year 2015. Two years later, full participation CoST Thailand began with the inclusion of 12 public-sector construction projects. These had a combined budget allocation of 53.38 billion baht, and all were large-scale construction projects in terms of their budgetary requirements, their effects on the environment, their consequences for local communities, and their other impacts.

- 5 projects were completed
- 7 projects were ongoing.

**Fiscal year 2018**

In 2018, CoST Thailand was extended to include construction projects of central government agencies, state enterprises and local government organizations, the first time that the latter had been involved in CoST Thailand, 126 projects with a total budget of 40.39 billion baht participated in CoST Thailand.

- 110 projects were completed
- 16 projects were ongoing.

**Fiscal year 2019**

113 projects joined CoST Thailand, these had total budget allocations of 3.99 billion baht.

- 101 projects were completed
- 12 projects were ongoing.

**Fiscal year 2020**

525 projects joined CoST Thailand, these having total budget allocations of 84.42 billion baht.

- 367 projects were completed
- 158 projects were ongoing.
2021 fiscal year

678 projects joined CoST Thailand, these had total budget allocations of 43.80 billion baht.

- **181 projects** were completed
- **497 projects** were ongoing.

<table>
<thead>
<tr>
<th>Category</th>
<th>Projects</th>
<th>Value (Million Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public utilities</td>
<td>43</td>
<td>4,017</td>
</tr>
<tr>
<td>Irrigation works</td>
<td>16</td>
<td>4,222</td>
</tr>
<tr>
<td>Airports</td>
<td>1</td>
<td>1,800</td>
</tr>
<tr>
<td>Ports</td>
<td>1</td>
<td>8.7</td>
</tr>
<tr>
<td>Central government agencies</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>State enterprises</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Local governments</td>
<td>570</td>
<td></td>
</tr>
<tr>
<td>Amenity and public facilities</td>
<td>32</td>
<td>7,160</td>
</tr>
<tr>
<td>Roads and bridges</td>
<td>452</td>
<td>5,729</td>
</tr>
<tr>
<td>Hospitals</td>
<td>1</td>
<td>53</td>
</tr>
<tr>
<td>Buildings and museums</td>
<td>132</td>
<td>20,811</td>
</tr>
</tbody>
</table>

Over the fiscal years 2015 to 2021, a total of 1,527 projects with a combined budget of 225.98 billion baht have been enrolled into the CoST Thailand. The procuring entities disclosed all relevant data in the CoST system that has been made available on the Comptroller General’s website.
Current projects are split between 140 for which tendering is underway and contracts are being agreed, and 1,073 for which this process has already been completed. This second group may be subdivided into 307 projects for which work is on contract management process, and 766 that have been completed.

### Status information during contract management and project termination

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Projects</th>
<th>Budget</th>
<th>Focal Price</th>
<th>Value of contracts</th>
<th>Save budget</th>
<th>Difference between budget and contracts value</th>
<th>Focal Price and contracts value</th>
<th>Difference between budget and contracts value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2015-2016</strong></td>
<td>7</td>
<td>52,045 million baht</td>
<td>48,319 million baht</td>
<td>42,595 million baht</td>
<td>9,450 million baht</td>
<td>18.16%</td>
<td>11.85%</td>
<td></td>
</tr>
<tr>
<td><strong>2017</strong></td>
<td>5</td>
<td>1,338 million baht</td>
<td>1,197 million baht</td>
<td>1,070 million baht</td>
<td>268 million baht</td>
<td>20.03%</td>
<td>10.61%</td>
<td></td>
</tr>
<tr>
<td><strong>2018</strong></td>
<td>122</td>
<td>24,954 million baht</td>
<td>24,824 million baht</td>
<td>21,543 million baht</td>
<td>3,411 million baht</td>
<td>13.67%</td>
<td>13.22%</td>
<td></td>
</tr>
<tr>
<td><strong>2019</strong></td>
<td>109</td>
<td>3,923 million baht</td>
<td>3,942 million baht</td>
<td>3,252 million baht</td>
<td>671 million baht</td>
<td>17.10%</td>
<td>17.50%</td>
<td></td>
</tr>
<tr>
<td><strong>2020</strong></td>
<td>464</td>
<td>31,097 million baht</td>
<td>30,369 million baht</td>
<td>27,262 million baht</td>
<td>3,835 million baht</td>
<td>12.33%</td>
<td>10.23%</td>
<td></td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>366</td>
<td>7,579 million baht</td>
<td>7,495 million baht</td>
<td>6,999 million baht</td>
<td>580 million baht</td>
<td>7.65%</td>
<td>6.62%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,073</td>
<td>120,936 million baht</td>
<td>116,146 million baht</td>
<td>102,721 million baht</td>
<td>18,215 million baht</td>
<td>15.06%</td>
<td>11.56%</td>
<td></td>
</tr>
</tbody>
</table>
Data disclosure under the CoST scheme, by type of project (2015–2021)

### Public utilities
- **Projects**: 69
- **Budget**: 2,628 billion baht
- **Data disclosure**: 81.38%
- **Average number of bidders per project**: 3.23

### Amenities and public facilities
- **Projects**: 49
- **Budget**: 6,018 billion baht
- **Data disclosure**: 83.37%
- **Average number of bidders per project**: 3.41

### Irrigation works
- **Projects**: 41
- **Budget**: 7,675 million baht
- **Data disclosure**: 80.95%
- **Average number of bidders per project**: 4.24

### Roads and bridges
- **Projects**: 707
- **Budget**: 30,285 million baht
- **Data disclosure**: 81.68%
- **Average number of bidders per project**: 4.23

### Ports
- **Projects**: 1
- **Budget**: 39 million baht
- **Data disclosure**: 72.73%
- **Average number of bidders per project**: 1

### Airports
- **Projects**: 6
- **Budget**: 59,378 million baht
- **Data disclosure**: 81.28%
- **Average number of bidders per project**: 2.83

### Hospitals
- **Projects**: 4
- **Budget**: 3,488 million baht
- **Data disclosure**: 80.67%
- **Average number of bidders per project**: 8.75

### Buildings and museums
- **Projects**: 196
- **Budget**: 11,426 million baht
- **Data disclosure**: 81.35%
- **Average number of bidders per project**: 3.42
### Data disclosure under the CoST scheme, by ministry (2015–2021)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projects</strong></td>
<td><strong>Data disclosure</strong></td>
<td><strong>Average number of bidders per project</strong></td>
<td><strong>Budget million baht</strong></td>
<td><strong>Data disclosure</strong></td>
<td><strong>Average number of bidders per project</strong></td>
<td><strong>Budget million baht</strong></td>
<td><strong>Data disclosure</strong></td>
<td><strong>Average number of bidders per project</strong></td>
<td><strong>Budget million baht</strong></td>
</tr>
<tr>
<td><strong>Office of the Prime Minister</strong></td>
<td><strong>Ministry of Commerce</strong></td>
<td><strong>Ministry of the Interior</strong></td>
<td><strong>Ministry of Justice</strong></td>
<td><strong>Ministry of Labour</strong></td>
<td><strong>Ministry of Culture</strong></td>
<td><strong>Ministry of Higher Education, Science, Research and Innovation</strong></td>
<td><strong>Ministry of Education</strong></td>
<td><strong>Ministry of Public Health</strong></td>
<td><strong>Ministry of Industry</strong></td>
</tr>
<tr>
<td>5</td>
<td>82.35%</td>
<td>5.2</td>
<td>924 million baht</td>
<td>60.92%</td>
<td>5</td>
<td>25 million baht</td>
<td>81.55%</td>
<td>3.7</td>
<td>2,740 million baht</td>
</tr>
<tr>
<td>6</td>
<td>87.14%</td>
<td>3</td>
<td>401 million baht</td>
<td>81.62%</td>
<td>3.96</td>
<td>32 million baht</td>
<td>81.01%</td>
<td>3.75</td>
<td>687.14%</td>
</tr>
<tr>
<td>11</td>
<td>72.69%</td>
<td>2.64</td>
<td>284 million baht</td>
<td>81.67%</td>
<td>3.75</td>
<td>14 million baht</td>
<td>80.10%</td>
<td>3.75</td>
<td>1172.69%</td>
</tr>
<tr>
<td>12</td>
<td>79.84%</td>
<td>7.67</td>
<td>490 million baht</td>
<td>81.67%</td>
<td>3.75</td>
<td>32 million baht</td>
<td>82.901</td>
<td>7.67</td>
<td>324.65%</td>
</tr>
<tr>
<td>22</td>
<td>84.64%</td>
<td>3.5</td>
<td>6,141 million baht</td>
<td>83.34%</td>
<td>4.24</td>
<td>12,051 million baht</td>
<td>72.69%</td>
<td>3.5</td>
<td>82.901</td>
</tr>
<tr>
<td>24</td>
<td>85.78%</td>
<td>2.75</td>
<td>22 million baht</td>
<td>85.29%</td>
<td>4.5</td>
<td>7,334 million baht</td>
<td>85.1%</td>
<td>4.5</td>
<td>364.65%</td>
</tr>
<tr>
<td>3</td>
<td>64.65%</td>
<td>3</td>
<td>185 million baht</td>
<td>86.21%</td>
<td>5</td>
<td>80 million baht</td>
<td>85.24%</td>
<td>6.38</td>
<td>574.89%</td>
</tr>
<tr>
<td>5</td>
<td>74.89%</td>
<td>2.8</td>
<td>185 million baht</td>
<td>85.24%</td>
<td>5</td>
<td>80 million baht</td>
<td>85.24%</td>
<td>6.38</td>
<td>574.89%</td>
</tr>
</tbody>
</table>

Information as of September 30, 2021
### Data Disclosure Rates by Regional Office of the Comptroller General’s Department (Local Government Projects Only, 2015-2021)

<table>
<thead>
<tr>
<th>Regional Office</th>
<th>Total Projects</th>
<th>Disclosed Projects</th>
<th>Data Disclosure Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Area</td>
<td>107</td>
<td>68</td>
<td>81.34%</td>
</tr>
<tr>
<td>Upper Central Region and Lower North</td>
<td>158</td>
<td>127</td>
<td>82.51%</td>
</tr>
<tr>
<td>Eastern Area</td>
<td>201</td>
<td>127</td>
<td>82.72%</td>
</tr>
<tr>
<td>Western Area</td>
<td>151</td>
<td>121</td>
<td>79.64%</td>
</tr>
<tr>
<td>Upper North</td>
<td>150</td>
<td>132</td>
<td>84.20%</td>
</tr>
<tr>
<td>Upper Southern Area</td>
<td>141</td>
<td>115</td>
<td>83.45%</td>
</tr>
<tr>
<td>Lower North</td>
<td>172</td>
<td>148</td>
<td>79.93%</td>
</tr>
<tr>
<td>Lower Southern Area</td>
<td>84</td>
<td>63</td>
<td>82.51%</td>
</tr>
</tbody>
</table>

**Note:** Details of each regional Office are in Annex 2.
Data disclosure under the CoST scheme, by type of agency responsible (2015–2021)

Average data disclosure rates stand at 81.63%.

1. **Central government agencies**
   - Total: 259 projects
   - Disclosed: 225 projects
   - Data disclosure rate: 81.60%

2. **State enterprises**
   - Total: 31 projects
   - Disclosed: 18 projects
   - Data disclosure rate: 79.42%

3. **Local governments**
   - Total: 1,237 projects
   - Disclosed: 970 projects
   - Data disclosure rate: 81.67%

Note: including 2 special local projects
Number of projects disclosing data, by project status and type of agency responsible for data disclosure via the CoST website

### Fiscal Year 2015-2021

**Number of projects enrolled in the CoST scheme that have begun procurement, by type of agency responsible**

**Local governments**
- Number of participating projects: 1,237
- Number of projects for which data has been disclosed: 970

**Central government agencies**
- Number of participating projects: 259
- Number of projects for which data has been disclosed: 225

**State enterprises**
- Number of participating projects: 31
- Number of projects for which data has been disclosed: 18

**Completed projects**
- Number of local governments: 682
- Number of state enterprises: 201
- Number of central government agencies: 4

**Procurement**
- Number of local governments: 87
- Number of state enterprises: 6
- Number of central government agencies: 47

**Construction**
- Number of local governments: 201
- Number of state enterprises: 8
- Number of central government agencies: 98

**Completed**
- Number of local governments: 766
- Number of state enterprises: 80
- Number of central government agencies: 4

**Number of projects disclosing data, by project status and type of agency responsible for data disclosure via the CoST website**

**Local governments**
- Number of participating projects: 1,237
- Number of projects for which data has been disclosed: 970

**Central government agencies**
- Number of participating projects: 259
- Number of projects for which data has been disclosed: 225

**State enterprises**
- Number of participating projects: 31
- Number of projects for which data has been disclosed: 18

**Completed projects**
- Number of local governments: 682
- Number of state enterprises: 201
- Number of central government agencies: 4

**Procurement**
- Number of local governments: 87
- Number of state enterprises: 6
- Number of central government agencies: 47

**Construction**
- Number of local governments: 201
- Number of state enterprises: 8
- Number of central government agencies: 98

**Completed**
- Number of local governments: 766
- Number of state enterprises: 80
- Number of central government agencies: 4
Annual data disclosure rates and budget allocations (2015–2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>Data Disclosure Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>83.74%</td>
</tr>
<tr>
<td>2019</td>
<td>84.66%</td>
</tr>
<tr>
<td>2020</td>
<td>83.38%</td>
</tr>
<tr>
<td>2021</td>
<td>81.63%</td>
</tr>
</tbody>
</table>


- **Number of projects participating**: 1,527 Projects
- **Projects disclosed**: 1,213 Projects
- **Total budget**: 230,161 million baht
- **Projects of**:
  - Central government agencies: 225 Projects, 62,148 million baht
  - State enterprises: 18 Projects, 89,050 million baht
  - Local governments: 970 Projects, 20,629 million baht

The average disclosure index was **81.63%**
Analysis of the data shows that both the average number of bidders and the level of price competition is significantly above the average for projects, especially in construction of roads, bridges, irrigation works, and hospitals. However, the high level of competition among those trying to secure contracts may result in winning bids being below the focal price, meaning that there is a risk that operations will be loss-making and that contractors will become insolvent. This will then make it difficult for them to complete their contractual obligations, resulting in project delays.

Considered with regard to location, number of bidders and the extent of price competition were high in the northeast of the country (Regional Office of the Comptroller General 3 and 4), but low in the far south (Area 9 Finance Office). However, the latter can be explained by the fact that in the 3 border provinces, rules requiring competitive bidding are suspended and specific method applies in their place. In this region, an average of 3.53 bidders were made for competitive bidding, and 2.8 of price competitive percentage below estimates averaged, which is compared to total average of 3.63 bidders and price competition of 11.50%.
Considered with regard to the size of contracts, those with a value of 3–5 million baht showed that the highest percentage of price competition is 29.6% below focal price with average of 6.06 bidders, compared to overall average price competition of 15.73% and 4.34 bidders. Moreover, a value of 20 – 100 million baht showed the lowest percentage of the number of participations which is 3.29%.

Contracts with a length of less than 180 days are above the average line.
For Ministry Level, projects undertaken by the Ministry of Agriculture and Cooperatives generated the greatest competition (these contracts had a value that was 28.2% below the focal price), followed by those of the Ministry of Labor (17.40% below the focal price).

375 projects overran their initial schedules, with 174 of these still underway and 201 now completed.

The longest delays were encountered on irrigation works, where they averaged around 11 months, followed by work on public utilities and infrastructure.
In 3 cases (Regional Office of the Controller General’s Department zone 3 and zone 5, and central government agencies), contract totals were substantially below focal prices, and this may have been an important factor contributing to project delays since contractors were obliged to cut their spending on both labor and machinery.

Analysis also shows that price competition reached at least 15% in 3 regions, these being the areas covered by Regional Office of the Comptroller General’s Department zone 5, zone 2 and zone 1. In these areas, price cuts were significant, and this may again have been a cause of delays as contractors cut their spending on both labor and machinery.
Overall data disclosure rates average 81.67%. Analyzed by province, the 5 highest disclosure rates

Projects with disclosure rates over 95% during the 2021 fiscal year are as follows:

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Project</th>
<th>Agency responsible</th>
<th>Province</th>
<th>Disclosure rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of a research and development center, Department of Primary Industries and Mines, Region 2, Udon Thani Province</td>
<td>Department of Primary Industries and Mines</td>
<td>Udon Thani</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Development of agricultural groundwater resources using high-tech tools to be used for the promotion of large-scale agriculture</td>
<td>Department of Groundwater Resources</td>
<td>Bangkok</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Construction of office buildings and other structures, Office of Energy, Sukhothai Province</td>
<td>Office of the Permanent Secretary, Ministry of Energy</td>
<td>Sukhothai</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Improvements to parts of the surface of reinforced-concrete Rural Road Chor. Chor. Thor. 85-003 running along the east bank of Canal 15 at Muu 12-11.</td>
<td>Bueng Nam Rak Subdistrict Administration Office</td>
<td>Chachoensao</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>Repairs and improvements using pavement in-place recycled asphaltic concrete to the asphalt road Or. Tor. Thor. 1–004, Ban Wang Yang–Ban Khun Fang, Tambol Phajuk–Tambol Khun Fang, Amphoe Muang, Uttaradit Province (covering an area 8 meters wide and 2,430 meters long).</td>
<td>Uttaradit Provincial Administration Organization.</td>
<td>Uttaradit</td>
<td>100%</td>
</tr>
<tr>
<td>Ranking</td>
<td>Project</td>
<td>Agency responsible</td>
<td>Province</td>
<td>Disclosure rate</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>---------------------</td>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>6</td>
<td>Rebuild asphaltic-concrete Rural Road Chor. Phor. Thor. 68001, Asian Highway 41-Ban Had Prik, Muu 2,</td>
<td>Wisai Tai Subdistrict Administration Office</td>
<td>Chumphon</td>
<td>96.97%</td>
</tr>
<tr>
<td>7</td>
<td>Construction of asphaltic-concrete Rural Road Nor. Sor. Thor. 125-35, Thung Bok-Kuan Hai, Muu 5,</td>
<td>Mor Bun Subdistrict Administration Office</td>
<td>Nakon Si Thammarat</td>
<td>96.97%</td>
</tr>
<tr>
<td>8</td>
<td>Repair and upgrade using pavement in-place recycling the asphalt road from Ban Wing Hin to Ban Mai Klong Kien, Muu 5,</td>
<td>Ban Yai Klong Kien Subdistrict Administration Office</td>
<td>Uthai Thani</td>
<td>96.97%</td>
</tr>
<tr>
<td>9</td>
<td>Resurface asphaltic-concrete Rural Road Or. Nor. Thor. 52-001 from Ban Nong Baen Muu 2</td>
<td>Nong Nang Nuan Subdistrict Administration Office</td>
<td>Uthai Thani</td>
<td>96.97%</td>
</tr>
<tr>
<td>10</td>
<td>Repair and upgrade reinforced-concrete Rural Road Chor. Chor. Thor. 44-011 from Khao Din and connecting to the 304 bypass, Muu 12, Tambol Ko Khanun.</td>
<td>Ko Khanun Subdistrict Administration Office</td>
<td>Chachoengsao</td>
<td>96.97%</td>
</tr>
<tr>
<td>11</td>
<td>Repair and upgrade reinforced-concrete Rural Road Chor. Chor. Thor. 44-007 from Soi 5</td>
<td>Ko Khanun Subdistrict Administration Office</td>
<td>Chachoengsao</td>
<td>96.97%</td>
</tr>
<tr>
<td>12</td>
<td>Construction of reinforced-concrete Rural Road Chor. Chor. Thor. 34-026 from Wat Raman, Muu 10</td>
<td>Don Chompli Subdistrict Administration Office</td>
<td>Chachoengsao</td>
<td>96.97%</td>
</tr>
<tr>
<td>13</td>
<td>Construction of rubber-asphaltic-concrete Rural Road Chor. Chor. Thor. 45-0002 from the Ta Saeng expressway to Nong Bon, Muu 9, Tambol Lad Krathing</td>
<td>Lad Krathing Subdistrict Administration Office</td>
<td>Chachoengsao</td>
<td>96.97%</td>
</tr>
<tr>
<td>14</td>
<td>Construction of a multipurpose building, Tambol Bang Talad, Amphoe Pak Kret, Nonthaburi Province.</td>
<td>Office of the National Water Resources</td>
<td>Nonthaburi</td>
<td>96.77%</td>
</tr>
<tr>
<td>15</td>
<td>Construction and fitting out of a museum work and conservation building, Chana Songkram, Phra Nakhon, Bangkok</td>
<td>The Treasury Department</td>
<td>Bangkok</td>
<td>96.77%</td>
</tr>
<tr>
<td>16</td>
<td>Construction of a canteen, Tambol Muang Sri Khai, Amphoe Warin Chamrap, Ubon Ratchathani Province</td>
<td>Ubon Ratchathani University</td>
<td>Ubon Ratchathani</td>
<td>96.77%</td>
</tr>
<tr>
<td>17</td>
<td>Construction of an apartment block and associated structures for the Legal Execution Department, Sawankhalok, Sukhothai Province</td>
<td>Legal Execution Department</td>
<td>Bangkok</td>
<td>96.77%</td>
</tr>
<tr>
<td>18</td>
<td>Construction of a laboratory facility, Tambol Talad Kwan, Amphoe Muang, Nonthaburi Province</td>
<td>Department of Medical Sciences</td>
<td>Nonthaburi</td>
<td>96.77%</td>
</tr>
<tr>
<td>19</td>
<td>Development of a human resources network for individuals working in the tourism sector, Tambol Saensuk, Amphoe Muang, Chonburi Province</td>
<td>Burapha University</td>
<td>Chonburi</td>
<td>96.77%</td>
</tr>
<tr>
<td>20</td>
<td>Construction of offices and a meeting room for Protected Areas Regional Office 16, Tambol Chang Khlan, Amphoe Muang, Chiang Mai Province</td>
<td>Department of National Parks, Wildlife and Plant Conservation</td>
<td>Chiang Mai</td>
<td>96.77%</td>
</tr>
<tr>
<td>21</td>
<td>Construction of offices and associated structures (7 in total) for the Provincial Office of Natural Resources and Environment, Lampang</td>
<td>Provincial Office of Natural Resources and Environment, Lampang</td>
<td>Lampang</td>
<td>96.77%</td>
</tr>
<tr>
<td>22</td>
<td>Expansion of water production facilities, Muu 3, Tambol Ban Pho, Amphoe Ban Pho, Chachoengsao Province</td>
<td>Ban Pho Subdistrict Municipality</td>
<td>Chachoengsao</td>
<td>96.77%</td>
</tr>
</tbody>
</table>

Note: 5 of the above projects are 100% compliant with the requirements for data disclosure. All the other projects listed are more than 95% compliant with these requirements, and in most cases, the missing information consists only of the contact details of those responsible for tendering.
For the fiscal year 2021, the CoST subcommittee specified that 10 projects should be selected for Assurance site-visit.

Overall, these 10 projects have certain similarities and for all, compliance with data disclosure requirements is good.

However, there are significant differences exist among 10 projects due to the wide variation in the influences and environments affecting these.
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Government Agency</th>
<th>Budget</th>
<th>Price Competition</th>
<th>Data Disclosure</th>
<th>Number of Bidders</th>
<th>Delays</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 2 of repairs and upgrades to Rama 1 floodway and associated buildings as part of flood protection works, Amphoe Had Yai, Songkhla Province</td>
<td>Royal Irrigation Department</td>
<td>1.89 million baht</td>
<td>28.23%</td>
<td>94.29%</td>
<td>4</td>
<td>0.66%</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td>Developing 1,260 cu.m. water resources in an area outside the reach of current irrigation works, Tambol Bua Tum, Amphoe So Phisai, Bueng Kan Province</td>
<td>Land Development Department</td>
<td>4 million baht</td>
<td>43.01%</td>
<td>66.67%</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preservation and restoration of ‘monkey cheeks’ water resources in Kut Talad Yao, Tambol Ma Feuang and Tambol Ban Jan, Amphoe Phutthaisong, Buriram Province</td>
<td>Department of Water Resources</td>
<td>325 million baht</td>
<td>18.59%</td>
<td>87.10%</td>
<td>5</td>
<td>On plan</td>
<td></td>
</tr>
<tr>
<td>Rama 3–Dao Khanong–Western Bangkok Outer Ring Road</td>
<td>Expressway Authority of Thailand</td>
<td>7.94 million baht</td>
<td>11.06%</td>
<td>97.00%</td>
<td>8</td>
<td>On plan</td>
<td></td>
</tr>
<tr>
<td>Construction of a 4-storey school block equipped with 16 classrooms, Chiang Rai Provincial Administration Organization School, Tambol Rob Wieng, Amphoe Muang, Chiang Rai Province</td>
<td>Chiang Rai Provincial Administration Organization</td>
<td>14 million baht</td>
<td>0.05%</td>
<td>93.55%</td>
<td>1</td>
<td>On plan</td>
<td></td>
</tr>
<tr>
<td>Project Description</td>
<td>Government Agency</td>
<td>Budget</td>
<td>Price Competition</td>
<td>Data Disclosure</td>
<td>Delays</td>
<td>Number of Submissions to Competitive Bidding</td>
<td>Status</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>-------------------</td>
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<td>--------</td>
<td>---------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Construction of a 4.995-kilometer-long bypass in Chachoengsao Province</td>
<td>Department of Highways</td>
<td>1.2 billion baht</td>
<td>1.27%</td>
<td>84.00%</td>
<td>On plan</td>
<td>3</td>
<td>On plan</td>
</tr>
<tr>
<td>Construction of a 4-storey classroom block containing 12 classrooms, Lak Muang School, Tambol Lak Muang, Amphoe Muang, Ratchaburi Province</td>
<td>Lak Muang Subdistrict Municipality</td>
<td>10 million baht</td>
<td>8.91%</td>
<td>93.55%</td>
<td>On plan</td>
<td>3</td>
<td>On plan</td>
</tr>
<tr>
<td>Resurfacing of asphaltic-concrete Rural Road Nor. Sor. Thor. 50-026 linking Wa Lo and Phru Mao, Muu 7, Tambol Ko Khan, Nakhon Si Thammarat Province</td>
<td>Ko Khan Subdistrict Administrative Organization</td>
<td>9 million baht</td>
<td>27.04%</td>
<td>97.00%</td>
<td>3.88%</td>
<td>3</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td>Phase 1 of the construction of sewage pipes running between the municipal district and Sri Suk Canal, Lopburi Province</td>
<td>Khok Samrong Subdistrict Municipal Office</td>
<td>9 million baht</td>
<td>18.18%</td>
<td>78.79%</td>
<td>55%</td>
<td>2</td>
<td>Completed on schedule</td>
</tr>
</tbody>
</table>
### Project 1

**Procuring Entity: Royal Irrigation Department**

**Phase 2 of repairs and upgrades to Rama 1 floodway and associated buildings as part of flood protection works, Amphoe Had Yai, Songkhla Province**

<table>
<thead>
<tr>
<th>Budget</th>
<th>5,569 million baht</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal price</td>
<td>5,345 million baht</td>
</tr>
<tr>
<td>Value of contracts</td>
<td>3,712 million baht</td>
</tr>
</tbody>
</table>

The project was undertaken with the goal of increasing local capacity to disperse excess water, adding to the ability of U-Tapao Canal to move 465 cu.m./second by providing a total capacity of 1,665 cu.m./second. The project also aimed to add around 5 million cu.m. to local water storage for use in the dry season.

| Project goals | To increase the speed of water moving through the Rama 1 floodway to the open sea at Songkhla from 465 cu.m. per second. to 1,200 cu.m. per second. |

| Procurement | The 1st contract attracted the most interest, with 19 bidder, whereas contracts 2, 3 and 4 each attracted just 4 bidders. The winning submission was in fact extremely low, and this undershot the focal price by 28.23%. |

<table>
<thead>
<tr>
<th>Contractors and length of contract:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracts 1 and 2: Siamphan Wattana PCL, 1,410 and 1,200 days respectively</td>
</tr>
<tr>
<td>Contract 3: Permpoon Engineering Ltd., 1,410 days</td>
</tr>
<tr>
<td>Contract 4: Chaicharoen Maitri Ltd., 1,789 days</td>
</tr>
</tbody>
</table>

| Contract management | This project was split into 4 contracts. |

| Work on the project was delayed and at present, this is 0.66% behind schedule. |

| Project performance | During construction, a high degree of public participation was reported, for example, in solving problems with dust, managing traffic, and preventing flooding. |

| Information as of September 30, 2021 | It is expected that work will be completed in December 2021. |
Completion of the project will ease problems with flooding, as well as providing access to additional water resources that will support agricultural activities and promote tourism, thus helping to generate income for local communities.

Construction work generated a large amount of dust. This then settled on nearby roads and when it rained, road surfaces became slippery and dangerous. The Irrigation Department Office for Large-scale Construction 11 therefore instructed the contractor to periodically wash down the road and to remove the accumulated dust.

1. There is an issue with the release of wastewater into the canal, and in the future, this will need to be checked by local residents (a river conservation society will be set up). The local municipal office will need to assist with this by ensuring that discharge of waste water is carried out according to the relevant laws.
2. Delays to the construction process raised fears among local residents regarding possible flooding during the rainy season. It was therefore necessary to accelerate work on the project and to bring this to a conclusion as rapidly as possible.

<table>
<thead>
<tr>
<th>Summary of public opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>20</strong> individuals</td>
</tr>
<tr>
<td>- Public outreach prior to the start of construction work</td>
</tr>
<tr>
<td>- Knowledge of complaints procedures</td>
</tr>
<tr>
<td>- Extent of public participation in the project</td>
</tr>
<tr>
<td>- Level of transparency around the project</td>
</tr>
</tbody>
</table>
1. Most problems with the project are connected to dust and mud on roads. Construction work should therefore be completed as quickly as possible.

2. Because of damage to a bridge, it was necessary for motorists to make a lengthy detour and this extended travel times significantly.

1. The contractor is now spraying down the road to remove accumulated dust. If potholes appear in the road that runs along the canal during the rainy season, these will be filled with gravel.

2. A road bridge is being built across the canal, and signposts have been put up directing traffic along the diversion.
Project 2

Development of 1,260–cubic–meter ponds in areas outside the reach of current irrigation works, Tambol Bua Tum, Amphoe So Phisai, Bueng Kan Province

**Procuring Entity:** Land Development Department

**Budget** 4.039 million baht

**Focal price** 4.039 million baht

**Value of contracts** 2.302 million baht

To help increase local water–storage capacity and so alleviate problems with a lack of access to water, the Ministry of Agriculture and Cooperatives assigned the Land Development Department the task of developing water resources beyond the area currently served by irrigation systems.

**Project goals**

- The project was undertaken with the aim of digging 199 rectangular ponds in a farming area not currently served by irrigation systems.
- Each pond was to be no deeper than 3 meters and to have a volume of 1,260 cu.m.
- Farmers contributed to the costs of the project with payments of and to have a volume of 2,500 baht per pond.

**Procurement**

- 8 bidders participated in the tendering process, and the bids that were submitted had an average value of 2,874,148 baht. The winning bid was priced at 2,302,032 baht, which was 43% below the focal price. The contract was awarded to Pong Pattana Kampaeng Pet Limited Partnership, with a 120–day completion schedule.

**Contract management**

- The project was split into 6 stages, spaced according to the number of ponds that had been dug, with the entire scheme running over a 120–day timescale. The contract also provided for a 1–year guarantee on the ponds.

**Project implementation**

- Checks on the project’s progress were made through a random sampling of 25% of the ponds. This revealed that in some areas, the land was too hard or did not hold the water sufficiently well, and so the ponds had to be re-dug elsewhere.

**Project performance**

- The project was completed on time.
Sustainability

It was hoped that completion of this project would help overcome problems with a lack of water for household and agricultural uses, and that construction of the ponds would allow the 199 farming families that participated in the project to be able to grow crops (e.g., off-season rice) in both the rainy and dry seasons.

Problems

The large number of ponds being dug meant that there were insufficient officers available to manage and check the quality of the work.

Recommendations

1. To increase its value for money, the project should have had a clear set of guidelines specifying the requirements needed to qualify for participation. These could have been used to decide who should have a pond dug, and then to dig these in order of need or how well individuals met the criteria.
2. The pond sites should have been surveyed and assessed for their water-holding capabilities before digging began. Likewise, an assessment of groundwater levels and the ability of this to support the ponds should also have been made prior to the start of construction work.

Summary of public opinions

<table>
<thead>
<tr>
<th>5 individuals</th>
<th>4 men and 1 women</th>
<th>with an average age of 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>Project's value for money</td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
<td>100%</td>
<td>Trust and confidence in the project process</td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
<td>100%</td>
<td>Responsiveness of procuring entity to problems</td>
</tr>
<tr>
<td>Level of transparency</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
### Public opinions

1. Most farmers needed access to ponds that were deeper than those provided by the project.

2. Most farmers were happy to pay the 2,500 baht/pond, which they thought represented good value for money. However, in some low-income households, this money was needed to pay for other agricultural purchases, such as seeds or fry.

### Procuring entity’s response

1. The depth of the ponds was determined by preexisting standards.

2. In future projects, the Land Development Department would reconsider the 2,500–baht charge.

---

### Data disclosure rates

<table>
<thead>
<tr>
<th>Processes for project presentation</th>
<th>Project preparation</th>
<th>Procurement</th>
<th>Project completion and complaint handling</th>
</tr>
</thead>
</table>

- **Quantitative data disclosure rate**: 66.67%
- **Qualitative data disclosure rate**: 75.00%
The project was undertaken:
1. to increase water storage for use by households and farmers during the dry season
2. to create a ‘monkey cheek’ system that would reduce flooding
3. to help with the restoration of aquatic ecosystems.

The project is **10.21%** ahead of schedule.

### Project goals
The project was undertaken to reduce problems with flooding along the riverbanks of the Moon River and to increase water storage for dry-season use. This should also help to increase incomes in local communities.

### Procurement
5 bidders participated in the competitive bidding for the project, with the winning bid coming in at **262.9 million baht**, **18.59%** below the focal price.

The contract was thus awarded to
- JVC Construction, with the project scheduled to run over 895 days.

### Contract management
The Department of Water Resources gave the Office of Water Resource Conservation and Recovery responsibility for project oversight since this organization has prior experience in this type of work.

### Project implementation
Civil engineers working for the Department of Water Resources have knowledge and expertise in assessing the quality of this kind of work, and in the view of these engineers, the construction work was appropriate for the budget disbursements that had been made.
The project will help to reduce problems arising from a lack of water for household and agricultural use during the dry season. It will also help to prevent flooding in the lower reaches of the River Moon and will lead to the development of tourism and recreation facilities.

Few problems were encountered during construction and so the contractor was able to progress ahead of schedule. The project is therefore expected to be completed before the contract deadline.

Once the project has been completed, responsibility for managing the water resources should be transferred to the local authorities since local households and farmers will be best able to manage water use in line with actual need. Nevertheless, the agency responsible for construction work should continue to monitor the project so that its success can be fully evaluated.

### Summary of public opinions

<table>
<thead>
<tr>
<th>8 individuals</th>
<th>6 men and 2 women</th>
<th>with an average age of 53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>Project's value for money</td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
<td>75%</td>
<td>Trust and confidence in the project process</td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
<td>100%</td>
<td>Responsiveness of procuring entity to problems</td>
</tr>
<tr>
<td>Level of transparency</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Project 3

1. The public were worried about the project completion date.

1. The contractor is confident that in the absence of unforeseen problems impacting progress, the project will be completed on schedule.

2. Construction materials and earth that is transported to and from the site often falls from lorries and enters neighboring fields.

2. The contractor will attempt to clear up any spillages as quickly as possible.

Photo

Data disclosure rates

Processes for project presentation

Procurement

Project completion and complaint handling

Quantitative data disclosure rate 87.10%

Qualitative data disclosure rate 88.00%
Delays in the tendering process meant that the timescale for contracts 1 and 3 have had to be shortened from 39 to 34 months, with the budget for this work raised accordingly. Because this was such a large project, to ensure that it is completed on schedule and to a high standard, it was necessary to bring in a consulting company with special expertise in construction management.

The project was split into 5 separate contracts. Bidding processes for contracts 1 and 3 were completed, but the winning bids did not meet the requirements set out for the tendering process, while the scope of work outlined in contract 5 had to be revised. However,

- bidding for the remaining contracts went ahead, with
  - contract 2 won by CTB Engineering with a bid of 6,440,001,181.87 baht (11.1% below the focal price),
  - contract 4 going to CH Karnchang, which submitted a bid of 6,636,192,131.80 baht (37.25% below focal price).

These contracts were both 1,170 days long.

At present, construction work is ahead of schedule, though there are worries that work specified in contract 2 that involves the moving of public utilities may be drawn out, pushing work behind schedule.
Since the project is being managed by an agency that is responsible for the country’s major road systems, its ability to manage maintenance and to keep the road operating is not at question. However, the condition of on- and off-ramps to the expressway may cause problems that affect nearby roads.

Contracts 2 and 4 (the contracts that have been signed) are slightly ahead of schedule, and although there may be problems coordinating the work required to relocate public utilities, the major problems with this project are related to contracts 1 and 3, for which the initial round of competitive bidding failed to return a suitable contractor, thus delaying work.

There are many access points to the road but the most important are at its start and around the connection with Rama II Road. These points are likely to become traffic bottlenecks and so vehicles travelling in the area around the on- and off-ramps need to be well managed; failure to do so may result in greater congestion than existed prior to the project.

<table>
<thead>
<tr>
<th>Summary of public opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 individuals</strong></td>
</tr>
<tr>
<td>✔ Public outreach prior to the start of construction work</td>
</tr>
<tr>
<td>✔ Knowledge of complaints procedures</td>
</tr>
<tr>
<td>✔ Extent of public participation in the project</td>
</tr>
<tr>
<td>✔ Level of transparency</td>
</tr>
</tbody>
</table>

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1. Traffic conditions have been bad for a long time, and if it rains heavily, local flooding will persist. Detours and entry and exit ramps have been set up, and it is expected that in another 5 – 6 months, previously closed traffic lanes will be reopened, but for the time being, pumps have been installed to prevent stagnant water accumulating.

2. The impact of compulsory purchase orders. Compulsory purchase orders have been kept to an absolute minimum. Those affected by these have been contacted in writing and invited to a public hearing to discuss the matter further.

Data disclosure rates

<table>
<thead>
<tr>
<th>Processes for project presentation</th>
<th>Project preparation</th>
<th>Procurement</th>
<th>Project completion and complaint handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
<td>93%</td>
<td>97.00%</td>
</tr>
<tr>
<td>Qualitative data disclosure rate</td>
<td>93.00%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The structure was built according to a standardized floorplan for a 4-storey 12-room classroom block, which is budgeted at a cost of 7,503,000 baht. This was adapted to contain 16 classrooms, and the project included fitting these out, which then raised the budget to 14,420,000 baht. Only 1 submission (Earth Contact Ltd.) was made to the competitive bidding process, priced 0.05% below the focal price. This company thus won the contract, which was to be completed within 280 days.

The project ran into problems with the building’s foundations that then caused construction work to be delayed. However, this had no additional effects because the contract specified that work would be completed according to the original cost. 280 days.

The project contract specified a single completion date for all work, and this may be one reason why it has fallen behind schedule. This may also have had the effect of encouraging the contractor to rush work as the deadline approached, causing this to fall below accepted standards or to be delayed.

The project is 82.04% behind schedule. The contract is due to be completed in February 2022.

Construction of the school block was undertaken to extend teaching and learning opportunities, increase the efficiency of educational services, and improve educational management and outcomes.

At present, the school contains 135 classrooms, with average class sizes of 29.6 pupils per class, but the additional building will bring this down to 26.05 pupils per class.

The project goals

Procurement

Project goals

Contract management

Project implementation

Project performance
Once the project has been completed, some of the teaching space will be used for classes for retail workers, for which there is reasonable demand. However, in the future, it will be necessary to pay for utilities (water, electricity, etc.) so costs will need to be managed.

The site was not fully surveyed before design work was completed and it transpired that the subsoil on site could not carry the weight of the standard classroom design. The construction plan therefore had to be adapted to take these new conditions into account.

While construction work is underway, any children straying on to the building site will be at risk of injury. The school authorities should thus lay out clear safety guidelines and then strictly enforce these. These might include designating the building site and nearby areas as ‘dangerous’, absolutely prohibiting all pupils from entering this area, putting up signs warning of the danger, and assigning safety officers to patrol the area.

Summary of public opinions

<table>
<thead>
<tr>
<th></th>
<th>17 individuals</th>
<th>8 men and 9 women</th>
<th>with an average age of 37</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public outreach prior to the start of construction work</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
<td>82.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of transparency</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project’s value for money</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust and confidence in the project process</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness of procuring entity to problems</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Parents and relatives of pupils at the school worried that it would be dangerous to carry out construction work during term time.

School authorities said that they would try to avoid organizing any activities near the construction site.

- **Public opinions**
  - Parents and relatives of pupils at the school worried that it would be dangerous to carry out construction work during term time.

- **Procuring entity’s response**
  - School authorities said that they would try to avoid organizing any activities near the construction site.

---

**Data disclosure rates**

<table>
<thead>
<tr>
<th>Processes for project presentation</th>
<th>Project preparation</th>
<th>Procurement</th>
<th>Project completion and complaint handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

- **Quantitative data disclosure rate**: 93.55%

- **Qualitative data disclosure rate**: 90.00%
The Department of Highways instituted a plan for a 10–lane, 4.995-kilometer-long extension to Highway 365 to provide a bypass to the south of Chachoengsao city. It was hoped that this would then help to alleviate problems with traffic congestion and improve the functioning of transport networks linking to the Eastern Economic Corridor.

The project had the goals of improving land transport networks in Chachoengsao Province, easing traffic problems in the area, and integrating logistics systems.

The schedule for completion of works and payments specified in the contract was reasonable and appropriate.

Procurement

3 submissions were made to the tendering process. The winning bid was priced at 1.05 billion baht, but the Department of Highways negotiated with the contractor, bringing this down to 1.037 billion baht (1.27% below the estimate). The contract was thus awarded to Nawarat Patanakarn PLC, with work scheduled to be completed within 1,080 days.

Procuring Entity: Department of Highways

Construction of a bypass to the south of Chachoengsao, Chachoengsao Province

<table>
<thead>
<tr>
<th>Budget</th>
<th>Focal price</th>
<th>Value of contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,200 million baht</td>
<td>1,050 million baht</td>
<td>1,037 million baht</td>
</tr>
</tbody>
</table>

Project performance

The project was completed 7.11% ahead of schedule.

Local residents expressed worries about the difference in height between their houses and the road surface, and work was delayed as the contractor made changes to the project to take account of this.
In the future, the volume of goods vehicles using this road is likely to increase, as will their speed, and so over the long term, measures to reduce the risk of accidents and to manage the environmental impacts of increased traffic will need to be implemented. In addition, land use along the sides of the road is likely to change, and so consideration needs to be given to how best to balance the demand for easier travel and the impacts of this on the local environment.

Two issues likely caused delays to the project. Firstly, public utilities located in the construction area had to be altered/relocated, and this required extensive coordination with other government bodies. Secondly, the road surface was substantially higher than private residential areas alongside the road, and reducing this difference necessitated frequent revisions to the construction plan.

This road was designed to facilitate traffic flow, meaning that traffic should move rapidly and be free-flowing, without interruptions or blockages. Thus, to ensure that all lanes remain fully usable, roads such as this should be designed so that there are as few entry and exit points as possible and vehicles should be prevented from stopping or parking on the road’s hard shoulders. This would help to minimize accidents and to keep traffic moving without hinderance.

<table>
<thead>
<tr>
<th>Summary of public opinions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>21</strong> individuals</td>
</tr>
<tr>
<td>Public outreach prior to the start of construction work</td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
</tr>
<tr>
<td>Level of transparency</td>
</tr>
</tbody>
</table>

**Recommendations**

**Sustainability**

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**Problems**

This road was designed to facilitate traffic flow, meaning that traffic should move rapidly and be free-flowing, without interruptions or blockages. Thus, to ensure that all lanes remain fully usable, roads such as this should be designed so that there are as few entry and exit points as possible and vehicles should be prevented from stopping or parking on the road’s hard shoulders. This would help to minimize accidents and to keep traffic moving without hinderance.

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**Summary of public opinions**

<table>
<thead>
<tr>
<th>21 individuals</th>
<th>12 men and 9 women</th>
<th>with an average age of 43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>Project’s value for money</td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
<td>40%</td>
<td>Trust and confidence in the project process</td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
<td>100%</td>
<td>Responsiveness of procuring entity to problems</td>
</tr>
<tr>
<td>Level of transparency</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Moving public utilities in the area interfered with local drainage, causing flooding. In the event of flooding, the responsible agencies would coordinate to clear this and to ensure that local residents suffered as little inconvenience as possible.

During the rainy season, the buildup of soil and sand makes entry and exit to the road difficult. The contractor would try to solve this problem as soon as possible.

Local residents wanted previously closed traffic lanes to be reopened. It might be possible to open part of the road before the entire length was completed.

**Data disclosure rates**

- Processes for project presentation: 100%
- Project preparation: 71%
- Procurement: 93%
- Project completion and complaint handling: 50%

**Quantitative data disclosure rate**: 84.00%

**Qualitative data disclosure rate**: 85.00%
This project involved the construction of a new teaching block to replace an old structure that was suffering from cracks in the structure and rusting of the reinforcing steel bars in support pillars. Building surveyors were called in from Ratchaburi Office of Public Works to consult on the construction of a new building, but they reported that the building site was unsuitable for teaching activities. A request was thus made to Lak Muang Subdistrict Municipality for emergency funding to be made during the 2020 fiscal year to pay for a replacement building.

The contract was drawn up as per the standard government requirements, but due to problems with the construction plans, the project was delayed, leading to worries that payments would not be completed within the 2021 fiscal year.

Changes to the concrete piles supporting the structure added to project costs and affected budgetary considerations. It was therefore necessary for the agency responsible to educate members of the public who were sitting on the audit committee about these changes.

Progress has stalled while permission is sought to alter the contract (the original contract specified a completion date of 30 September, 2021).
This project will help to raise educational outcomes for Lak Muang Subdistrict Municipality School, and because the new structure is an improvement on the older wooden building, there is a high degree of confidence that this will provide significant long-lasting benefits to local education.

The project is currently delayed. When specifying the scope of work and applying for funding, Lak Muang Subdistrict Municipality used blueprints from the Department of Public Works and Town and Country Planning that required construction using driven piles. However, the construction site is on the banks of a river and is surrounded by residential housing, and the owners of the latter worried that driving in piles would cause damage to their own houses.

It is possible that payment for this project may not be made in full by the end of the 2021 fiscal year, and any residual payments that remain to be made after this will need to come from Lak Muang Subdistrict Municipality’s own budget. To prevent similar problems arising in the future, the authorities should ensure that any and all changes to construction plans required by conditions on the construction site should be made in full before budget requests are made.

<table>
<thead>
<tr>
<th>Summary of public opinions</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 individuals</strong></td>
<td><strong>2 men and 2 women</strong></td>
<td><strong>with an average age of 34</strong></td>
<td></td>
</tr>
<tr>
<td>✔ Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>✔ Project’s value for money</td>
<td>100%</td>
</tr>
<tr>
<td>✔ Knowledge of complaints procedures</td>
<td>100%</td>
<td>✔ Trust and confidence in the project process</td>
<td>100%</td>
</tr>
<tr>
<td>✔ Extent of public participation in the project</td>
<td>100%</td>
<td>✔ Responsiveness of procuring entity to problems</td>
<td>100%</td>
</tr>
<tr>
<td>✔ Level of transparency</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Parents and guardians wanted their children to study near home but they were worried that if the new building is not complete, there will not be sufficient teaching space.

Members of the public were worried about on-site safety during term time.

The authorities stated that they were rushing to redraw the plans so that work could be completed within the 2021 fiscal year.

The school has put up barriers between learning areas and the building site and teachers were diligent about making sure that pupils stayed away from the area where construction work was ongoing.

---

**Procuring entity’s response**

The authorities stated that they were rushing to redraw the plans so that work could be completed within the 2021 fiscal year.

The school has put up barriers between learning areas and the building site and teachers were diligent about making sure that pupils stayed away from the area where construction work was ongoing.

---

**Public opinions**

Parents and guardians wanted their children to study near home but they were worried that if the new building is not complete, there will not be sufficient teaching space.

Members of the public were worried about on-site safety during term time.
The contract was in line with standard government procedures, though the plans had to be adjusted in 2 regards. In some areas, the original plans would have impinged on areas where construction work had already been carried out, while in other areas, the plans strayed beyond the jurisdiction of the Subdistrict Administration Office.

3 observations were made regarding the project:
- It would have been possible to avoid adjusting the construction plans if the area had been thoroughly surveyed in advance.
- It would be better to apply for a reduction in the scope of the work, rather than using the difference in work on the planned and actual construction to fund work on a different road.
- Members of the public participating in the audit committee need to be better informed.

At present, the project is awaiting approval from the governor of Nakhon Si Thammarat for changes to the construction plan (the contract is due to terminate on 31 August, 2021).

This road connects Nakhon Si Thammarat and Phatthalung provinces via Highway 4018 and Rural Road Nor. Sor. 2033 in Phatthalung.
This project involves laying an asphaltic-concrete surface along a 3,560-meter length of road, and if this is completed as planned, the new road will make travel more convenient for members of the local community. However, the road is 4 meters wide, so there is a risk of accidents when vehicles travelling in opposite directions meet.

The area where the roads was to be constructed overlapped with a road that had already been completed in 2020 and terminated in an area that was beyond the boundaries of the agency responsible for the construction work. As such, the quantity of work to be completed was in fact less than that specified in the contract, and so officials submitted a request to make up the difference by constructing a new road in an adjacent area. Permission for this change needs to be granted by the Governor, and so work on the road has been delayed.

In order to bring the project to completion and to provide a road for local communities to use, work should be accelerated on the portion of the project where this is possible. At the same time and working in parallel, problems with the areas of difficulty should be resolved.

<table>
<thead>
<tr>
<th>6 individuals</th>
<th>4 men and 2 women</th>
<th>with an average age of 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>☑ Project’s value for money</td>
</tr>
<tr>
<td>☑ Knowledge of complaints procedures</td>
<td>85.7%</td>
<td>☑ Trust and confidence in the project process</td>
</tr>
<tr>
<td>☑ Extent of public participation in the project</td>
<td>100%</td>
<td>☑ Responsiveness of procuring entity to problems</td>
</tr>
<tr>
<td>☑ Level of transparency</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
The road runs through an agricultural area between Phatthalung and Nakhon Si Thammarat that does not contain residential housing, and is used for the transport of agricultural produce. As such, it should be fitted with street lights. In the future, a submission may be made for funding for street lights.
The contract was awarded according to the standards set by the government. The main point of interest was that the construction plans that were attached to the contract were not in accord with the scope of work as originally specified. The managing agency thus had to fully investigate this discrepancy.

The construction plans for the road were supplied by the Department of Rural Roads, but in some areas, the plans did not reflect the actual site conditions. The managing agency should thus have carried out a careful survey and review of the details before work on the project began.

The project contributed to the development of infrastructure that connected with existing communications networks, helping local farmers to increase their income by allowing them to transport goods faster and more easily.
No problems were encountered when implementing this project.

Sustainability

Once construction was completed in line with the plans, road samples were tested by a Technical College and by the Department of Rural Roads. These confirmed that the road was strong enough to support vehicles weighing up to 21 tonnes and so its construction met the project’s goals. However, the road shoulders were built from gravel, and there are worries that in the future, problems may emerge with subsidence and/or this area’s weight-bearing capabilities.

Problems

The finished road has a wide smooth surface, and so the volume and speed of traffic is likely to increase. To reduce the likelihood of accidents, it is therefore necessary that safety measures be put in place, which could include better signage, installation of warning lights in appropriate spots, and painting clearer lane markings on the road surface.

Recommendations

Summary of public opinions

<table>
<thead>
<tr>
<th>10 individuals</th>
<th>5 men and 5 women</th>
<th>with an average age of 56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public outreach prior to the start of construction work</td>
<td>100%</td>
<td>Project’s value for money</td>
</tr>
<tr>
<td>Knowledge of complaints procedures</td>
<td>80%</td>
<td>Trust and confidence in the project process</td>
</tr>
<tr>
<td>Extent of public participation in the project</td>
<td>100%</td>
<td>Responsiveness of procuring entity to problems</td>
</tr>
<tr>
<td>Level of transparency</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Public opinions

Current flashing warning lights/street lights are insufficient and to increase driver safety, the number of these that are installed should be increased.

Procuring entity’s response

A plan for street lighting has been included in the budget requests for the 2022 fiscal year.

Normally, there are few accidents on this road, but travel on the new road will be easier and so the accident rate may rise.

In the future, it is likely that warning signs will be put up to encourage safer driving and so improve local residents’ overall quality of life.

Photo

Data disclosure rates

<table>
<thead>
<tr>
<th>Processes for project presentation</th>
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<th>Procurement</th>
<th>Project completion and complaint handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>93%</td>
<td>83%</td>
<td></td>
</tr>
</tbody>
</table>

Quantitative data disclosure rate: 93.94%

Qualitative data disclosure rate: 85.00%
Project 10

Project goals
The current system for dispersing storm water relies on pipes that were manufactured some time ago, which has resulted in problems with pipe sizes not matching. This reduces the overall ability of the system to deal with large volumes of water and because of this, storms often lead to persistent flooding of homes in the area.

Procurement
2 bidders made submissions to the competitive bidding. The winning bid was valued at 9,068,000 baht, 18.18% below the focal price. The construction contract was thus awarded to Tien Prasert Limited Partnership, and work was due to be completed within 180 days.

Contract management
The contract complied with government standards.

Project implementation
The specification of works called for the installation of underground storm drains but the road where they were installed was very narrow, and this then resulted in damage to the houses on either side of the road. This was a consequence of a lack of clarity in the construction plans.

Project performance
Technical problems mean that it will not be possible to complete this project and so it is in the process of being cancelled.

Khok Samrong Subdistrict is often affected by heavy rainfall during the rainy season, and the previously installed storm drains were insufficient to cope with heavy inundation, which then led to flooding and damage to property in the area.

Information as of September 30, 2021
Procuring Entity: Khok Samrong Subdistrict Municipal Office

Phase 1 of the construction of a sewage system running between the municipal district and Sri Suk Canal, Lopburi Province

<table>
<thead>
<tr>
<th>Budget</th>
<th>9.1 million baht</th>
<th>Focal price</th>
<th>11 million baht</th>
<th>Value of contracts</th>
<th>9 million baht</th>
</tr>
</thead>
</table>

Planed: 0%  Completed: 0%
If the project had been carried to completion, several factors may have had an influence on its long-term outcome:

Installation of the drains might have had an impact on the foundations of the road and of nearby houses. Problems may have arisen due to the inconsistent level of the pipes. Once installed, there might have been problems with an accumulation of stagnant water, which may then have had effects on local water resources.

The implementation of this project resulted in considerable disruption for the local community since the narrowness of the road meant that houses along both sides were unable to use their vehicles.

Recommendations

This project should be abandoned, the road reopened to the public, and every effort made to solve the problems experienced by the local community as soon as possible.

Summary of public opinions

<table>
<thead>
<tr>
<th></th>
<th>5 individuals</th>
<th>1 men and 4 women</th>
<th>with an average age of 59</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️ Public outreach prior to the start of construction work</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>✔️ Knowledge of complaints procedures</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>✔️ Extent of public participation in the project</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>✔️ Level of transparency</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

- ✔️ Project’s value for money: 20%
- ✔️ Trust and confidence in the project process: 20%
- ✔️ Responsiveness of procuring entity to problems: 20%
**Project 10**

**Public opinions**

- **The scale of problems generated by this project are such that it should be cancelled.**
- **The road should be reopened because at present, local households have difficulty leaving their houses to travel.**

**Procuring entity’s response**

- At present, information is being gathered and a meeting arranged to consider how best to solve the problems caused by this project.
- To help alleviate disruption to the local community, in as far as it is possible, the affected areas will be returned to their condition prior to the start of the project.

**Photo**

- Images showing the project site and affected area.

**Data disclosure rates**

<table>
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<tr>
<td>100%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>71%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
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</tbody>
</table>

**Quantitative data disclosure rate**

- **78.79%**

**Qualitative data disclosure rate**

- **83.00%**
Overall, 76.90% of the public were confident in the construction process, with 80.10% agreeing that the projects represented value for money. However, delays in completing work on schedule meant that 22.4% were worried about the ability of government agencies to manage the construction work. The public were interested in the competitive bidding process, the quality of the completed work, and issues related to health and safety. In addition, members of the public were concerned that contractors would be negligent about managing problems related to traffic disruption and dust caused by construction work. Finally, the public were keen to be involved in all stages of projects implemented by both local and central government organizations, from project preparation onwards.
As regards demographics, participants were split in the ratio 6:4 between men and women, which in terms of equal representation was an improvement on previous years. The majority of those voicing opinions on these projects were of working age (i.e., 40 years old or over).

### Overview of public opinions

- **Overall, the public believed that the construction projects represented value for money**: 80.10%
- **and that project implementation was highly effective at meeting its goals**: 76.90%
- **Members of the public expressing an opinion on the projects were generally of working age, though the CoST project needs to broaden participation**: 71.89%
- **The public were aware of the projects’ complaints**: 76.00%
- **The public have confidence in the quality of the construction work undertaken**: 76.53%
- **The responsiveness of the authorities to reported problems**: 78.00%
- **The public have confidence in the transparency of the tendering process**: 75.00%

Facilitating this process is absolutely crucial to ensuring that the public participate in projects.
Around the world, the importance is increasingly being recognized of, on the one hand, openness and data disclosure, and on the other, public participation in establishing government transparency and accountability. This process of moving to a system of open government is also more and more data driven, and this is forming a major plank in the transition to sustainable development. As part of the push for the latter, the World Bank has adopted and applied important parts of the Theory of Change that have included the following:

**The public sector**
- Using data to support policy and to improve services delivered to the public

**Members of the public**
- Using data to track the impacts of government policy

**The private sector**
- Using data to facilitate operations, which will then help to stimulate corporate expansion and wider economic growth

However, having access to only a single type of data will yield very limited benefits, and so it is important to ensure that the data that is available is actually of use, for example in informing policy decisions, improving management processes, or increasing accountability. Moving in this direction will then help to establish the social contract, in particular in 3 aspects:
As part of the CoST program, the CoST Theory of Change has been developed. This takes the 4 parts of the program mechanism, that is: (i) disclosing information on forty project data points; (ii) verifying data; (iii) specifying regulations; and (iv) working in partnership between the government and civil society, and uses these to promote change in 3 different dimensions.

**Disclosure**
and openness provide the foundations for transparency. This is the ultimate end goal for all projects enrolled in the CoST scheme, and it can be achieved by reaching 100% data disclosure. This will then allow data to be used to solve problems or to reflect and inform the worries of stakeholders in the process.

**Accountability**
is the means by which data that has been disclosed can be used to increase participation, though this process needs to be carried out according to internationally recognized standards.

**Participation**
is at the heart of operations. This helps to establish the shared responsibility that leads to the transformation of organizational culture and the establishment of transparency and accountability.

An environment of trust will be established when the rights and interests of all stakeholders in the data are respected and protected.

All participants should share equally in any benefits arising from the data.

The value of the data will be fully realized in its use and when it is re-exploited for a range of different ends.

The World Bank Theory of Change is centered on the transformation and practical use of data.

It should be clear that the CoST framework aligns closely with the proposals from the World Bank since the CoST process begins with data disclosure, and then uses this data to generate a range of benefits and to promote positive change for participants in this process. At the heart of this is the establishment of a social contract and the building of mutual trust between the government and the public.

This is in line with the principles outlined by Danny Wallace (2007) in his theory of the ‘DIKW Pyramid’. This describes a hierarchy built on data at the lowest level.

- **D** (Data) is here conceived of as a collection of scattered and unordered units but when this is gathered, arranged and given structure, data becomes information. At the next level, information

- **I** (Information) is processed and analyzed, creating knowledge

- **K** (Knowledge) and at the highest level, knowledge becomes wisdom.

- **W** (Wisdom)
This process can be imagined as a pyramid, the base of which is composed of data. Above this is the level of information, above that is knowledge, and at the pinnacle of the pyramid is wisdom.

<table>
<thead>
<tr>
<th>Source: permission from Tedeschi (2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data</strong></td>
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<tr>
<td>+ contexts</td>
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When the CoST process is analyzed in light of the above, the following observations emerge.

Disclosure is equivalent to ‘data’, which provides the basis on which the government can establish the processes for building transparency and accountability. At present, the disclosure rate stands at 81.63%, while the data that can be further use is at 80.25%, which is considered a good level.
At this stage, data is transformed into information, analysis of which shows that:

- Disclosure rates stood at 81.60% for central government agencies, 79.42% for state enterprises, and 81.67% for local government organizations.

- Disclosure rates were highest for projects involving amenities and tourist sites (83.37%) and lowest for ports (72.73%).

- Project delays were most often seen for projects valued at 5-10 million baht, with delays reported for construction work on irrigation projects, infrastructure, buildings and museums, and amenities and tourism sites.

- At provincial level, 5 provinces with the highest disclosure rates were Sukhothai, Lamphun, Chachoengsao, Mae Hong Son, and Sakhon Nakhon.

A comparison of four possible combinations of quantitative and qualitative disclosure rates.

1. Both high: Disclosure rates are high (at a ‘good’ rate) on both sides, though agencies should be encouraged to keep up this rate of compliance.

2. Disclosure rates are high quantitatively but low qualitatively. Although data disclosure is technically largely complete, the disclosure process has not finished and additional training is needed to educate officers about the requirements entailed by participation in the CoST scheme.

3. Disclosure rates are low quantitatively but high qualitatively. Measures will need to be put in place to ensure that disclosure rates are improved, possibly with the latter used as a metric when making staff appraisals.

4. Disclosure rates are low on both counts. In this case, compliance would be considered to be very poor, and agencies would have to be encouraged to perform better. Training should be provided so that relevant staff better understand the guidelines for complete disclosure.

Utilizing the disclosed data
Building knowledge through the development of the CoST process

This corresponds to ‘knowledge’ and is an important stage of the process since the public are at the center of developing new knowledge.

The disclosure rate influences the public’s confidence in the transparency of the process, and this stood at 78.00%.

Awareness of complaints procedures increased to 71.89% from 43% in 2020, while the responsiveness of the authorities to problems experienced by the public was at 76.00%.

The public’s confidence in the project’s value for money was also raised (80.10%).

Wisdoms

To build trust within society and to bring about lasting change, the following recommendations are made:

- Regarding projects managed by local government organizations, these most often run into difficulties due to preparation of budgetary requests being rushed, which then leads to inadequate consideration being given to the scope of work, project implementation, the type of construction work to be carried out, on-site surveys, and the project’s impact on the public.

- Training should be made available to procurement officers in government agencies responsible for construction projects to help increase understanding of the procurement process and knowledge of how to process supply acceptance. This could be provided by the Provincial Office of the Comptroller General and trained through online and offline channels.

- Technical training should be provided to engineers working for offices responsible for project management. This would help staff keep their knowledge up to date and allow them to plan projects appropriately.

- The Comptroller General’s Office should maintain a list of construction operators that the companies work on infrastructure and utilities, or on buildings. This would then help to reduce the risk of delays and overruns on these types of projects.

- Construction Project Consultation and Notice Project proponents should give priority to listening to the public’s views both before beginning the project and during construction to mitigate problems and impacts that may be exacerbated.
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.

### Project Phase | Disclosed data
---|---
**1. Project Identification (6 Datapoints)** | 1) Project owner  
3) Project name  
5) Purpose  
2) Budget  
4) Project Location  
6) Project description  
7) Project Scope (main output)  
9) Land and settlement impact  
11) Funding sources  
13) Project budget approval date  
14) Procuring entity  
16) (TOR)  
18) Contract type  
20) Numbers of firms tendering  
22) Contract administrative entity  
24) Contract firm(s)  
27) Contract start date Contract duration  
15) Procuring entity contact details  
17) Procurement process  
19) Contract status  
21) Cost estimate  
23) Contract title  
25) Contract price  
26) Contract scope of work  
**2. Project Preparation (7 Datapoints)**  
30) Variation to contract duration  
32) Reasons for price changes  
33) Reasons for duration changes reasons for scope changes  
**3. Procurement (14 Datapoints)**  
28) Escalation of contract price  
31) Variation to contract scope  
**4. Implementation (6 Datapoints)**  
29) Variation to contract price  
30) Variation to contract duration  
32) Reasons for price changes  
33) Reasons for duration changes reasons for scope changes  
**5. Project Completion (7 Datapoints)**  
34) Project status (current)  
36) Completion Date (projected)  
38) Reasons for project changes  
40) Complaint management  
35) Completion cost (project)  
37) Scope at completion (projected)  
39) Reference to audit and Evaluation reports
### Appendix 2  Service area of the Regional Office

| Regional Office | Chainat | Pathum Thani | Phra Nakhon Si Ayutthaya | Lopburi | Singburi | Nonthaburi | Kamphaeng Phet | Nakhon Sawan | Phitsanulok | Sukhothai | Uthai Thani | Ratchaburi | Phichit | Phetchabun | Uttaradit |
|-----------------|---------|--------------|-------------------------|--------|--------|-----------|----------------|--------------|-------------|-----------|------------|------------|----------|----------|----------|----------|
| 1               |         |              |                         |        |        |           |                |              |             |           |            |            |          |          |          |          |
| 2               | Chanthaburi | Chachoengsao | Chonburi               | Nakhon Nayok | Prachinburi | Rayong | Sa Kaeo | Kanchanaburi | Nakhon Pathom | Prachuap Khiri Khan | Phetchaburi | Samut Songkhram | Samut Sakhon | Suphanburi |          |          |
| 3               | Chaiyaphum | Nakhon Ratchasima | Buriram               | Sisaket | Amnat Charoen | Ubon Ratchathani | Krabi | Nakhon Si Thammarat | Phang Nga | Ranong | Phuket | Surat Thani |          |          |          |          |
| 4               | Kalasin | Nakhon Phanom | Bueng Kan               | Maha Sarakham | Mukdahan | Loei | Nong Khai | Udon Thani | Khon Kaen | Roi Et | Sakon Nakhon | Nong Bua Lamphu | Narathiwat | Phatthalung | Songkhla |          |          |
| 5               | Chiang Rai | Nan | Phrae | Mae Hong Son | Lampang | Chiang Mai | Phayao | Lamphun | Trang | Pattani | Yala | Satun |          |          |          |          |          |
| 6               |         |              |                         |        |        |           |                |              |             |           |            |            |          |          |          |          |
| 7               |         |              |                         |        |        |           |                |              |             |           |            |            |          |          |          |          |
| 8               |         |              |                         |        |        |           |                |              |             |           |            |            |          |          |          |          |
| 9               |         |              |                         |        |        |           |                |              |             |           |            |            |          |          |          |          |