Part III   Best practices and challenges

Chapter 8
Policy implementation power

> Policy measures – no matter how important or urgent – will not produce the intended policy effects unless they are accompanied by the power of execution to adequately carry out those measures.
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> In this chapter, we take up the special ¥100,000 cash handout to the entire population and the distribution of gauze masks to each household as examples that exposed problems in the government's policy implementation power to deliver medical supplies and funds – which tend to fall short in times of crisis – promptly to the people who need them in the volume required. Did the government have the capacity to distribute the money and supplies to all the people in Japan over a short period of time? An international comparison exposed the insufficient information in the Japanese government's possession about people in this country as well as its lagging efforts to build a digital infrastructure, and the serious effects these problems had on the government's policy implementation power.
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> In the latter half of the chapter, we also review the process of developing COCOA (Contact confirming application) in the kind of public-private sector collaboration that is essential for bolstering the government's policy implementation power during a crisis – in order to examine the problems in the government's digital infrastructure, such as bureaucratic divisions that hamper flexible and rapid public-private sector collaboration in the digital age, procurement mechanisms, a shortage of manpower with expertise, and poor communication.

1. The nation's "policy implementation power"

1.1. Points of discussion over the Special Cash Payments

As was explained in Part II, Chapter 6, the Special Cash Payments to the public was introduced for the purpose of providing emergency support for households amid the steep downturn in the economy due to the rapid expansion of COVID-19 infection. The program uniformly offered ¥100,000 to each resident of Japan. As Finance Minister Taro Aso told the April 17 news conference, "speed is the most important" in carrying out the program, the purpose of the program being to deliver the money as quickly as possible to people in financial trouble.

As a consequence, the government managed to distribute the cash handout to 76 percent of the population (as of July 1) within two months after the first extra budget for fiscal 2020 cleared the Diet on April 30, and to 99 percent[1] (as of August 28) within four months. The only other government program that provided such a cash handout to all people was the ¥12,000 uniform payout made during the financial crisis in the wake of the collapse of Lehman Brothers in September 2008, and it took roughly six months to complete the payments at the time. In that sense, the handout in the latest program was completed more quickly than in the past program.

However, comparison with other advanced industrialized countries that offered similar cash handout programs to help people hit by the economic damage from COVID-19 shows that, as was widely criticized, payment by the Japanese government was not promptly delivered. Clearly, the handout was delayed by problems in the nation's policy implementation power.

1.1.1. Cash handout programs in other countries

In the United States, a cash handout of an amount determined by the Internal Revenue Service based on the income of each individual was provided to a total of some 159 million people. Even though the program involved payment to a larger number of recipients than in Japan and was not a handout of a uniform amount, the money was delivered to all eligible people within two months and one week of the enactment of the CARES Act that paid for the program.

Behind the prompt implementation of the cash payment fine-tuned to individual needs in the U.S. was the fact that the IRS, through the filing of tax returns each year, possessed information on each individual's income and bank account for refunds linked to his or her social security number, which enabled an automatic transfer of the amount calculated by the IRS to the recipients' accounts without asking for extra action on their part such as applying for the payment. For recipients whose bank account information was not in the government's possession, the handout was also provided without requiring them to take extra steps, by either mailing checks or prepaid debit cards to their latest address registered with the Postal Service, making payment to their accounts for receiving pension benefits, or transferring the money to bank accounts registered through the Non-Filers Tool provided online by the Treasury Department and the IRS. A free app, Get My Payment, was also provided to enable recipients to follow the payment process by inputting their social security numbers.

Many other countries enabled a quick delivery of the cash handouts through electronic application. In Germany, which offered up to 9,000 euros (about ¥1.1 million) each to individual business owners, micro enterprises with up to five employees, artists and freelance creators, and a maximum of 15,000 euros (¥1.8 million) each to companies

with up to 10 workers,[2] the federal and state governments as well as banks took the initiative in electronic application for the payments, and the handout was delivered within days of the enactment of the relevant law in some states. In Estonia, where 99 percent of public services had already been digitized, cash handouts were promptly delivered through an online application using digital IDs.

1.1.2. The problem with Japan's cash handout process

Points in the design of Japan's Special Cash Payments program that affected the government's execution of the policy measure were the fact that it used the My Number personal identification cards and the Myna Portal site, that it required people to apply for the payment, and that it offered a uniform amount irrespective of the recipients' income levels. As a consequence, it took more time to deliver the money than the similar program in the U.S., and that was because a major portion of the work to distribute the handouts relied on large-scale mobilization of personnel by municipal governments.

Behind this problem was the fact that personal information on people in the government's possession was scattered across different administrative bodies and, since it was unable to manage the information in a centralized way either in legal terms or due to the design of the system, the national government could not digitalize the handout delivery process in one batch.

1.1.2.1. Lack of capacity to grasp information on recipients

In a political decision, the government accepted online application for the cash handouts by using the My Number cards and the Myna Portal site. At a glance, it may look like Japan digitalized the cash handout process by using the My Number personal identification system. What was used in the application, however, was not the 12-digit personal identification number assigned to each individual, but the digital certificate function of the IC chip on the My Number card for the online personal authentication of the applicants.

In order to promptly identify recipients and deliver the handouts in ways suitable for the digital age, the government needed to have at least their personal authentication information, income data to fix the amount of the payout, and bank accounts for money transfer ready and effectively linked to their My Number IDs. However, the government did not have such a basic infrastructure.

In the first place, only 16.4 percent of the population had obtained a My Number card as of May 1, meaning that only a small portion of the public was able to use the card

to apply for the cash handouts. You needed to go to the local municipal offices to newly obtain the cards or re-set PIN codes, and it was easily predictable that using the My Number cards for personal authentication when applying for the handouts would increase face-to-face work at the counters of those offices, which would be undesirable from the viewpoint of preventing COVID-19 infections.[3]

Also, in Japan, which has adopted a policy of decentralized management of personal information, the use of personal information kept separately at different government institutions by another administrative body requires legal grounds under the law on the My Number system. But a cash handout like the program in response to COVID-19 was not among the types of work listed under the law for which the personal identification numbers could be used, and the law needed to be revised to use the ID numbers for the handouts. The Internal Affairs and Communications Ministry, which oversaw the cash handout program, was unable to tap into people's bank account and other information obtained and collected by other national government bodies or local governments through tax returns, pension payouts, distribution of child allowances or payment of public service fees. As a result, the ministry had no choice but to rely on local governments – which possess the resident information and have the manpower to handle over-the-counter service for citizens – to take charge of the work to process the cash handouts.

Furthermore, Japan's cash handout program was designed not as a push-based scheme, in which the money would be automatically delivered without application by recipients, but a pull-type scheme that made payment only to those who applied for the handouts. This is deemed to have required an extra clerical cost and time to process the applications. But in order to carry out a push-type handout, the government needed to have basic data about the recipients necessary to make the payments, as in the United States. Given the government's current system of managing personal information in its possession, it was impossible in the first place to implement a push-type handout program in Japan.

Such a Japanese system is in stark contrast to the U.S., where the handout was promptly delivered based on recipients' information managed in a centralized form by the IRS. The lack of the government's capacity to grasp information about recipients constrained the design of the cash handout program in Japan and significantly delayed the payouts.

1.1.2.2. Poor cooperation between national and local governments (issues with the operation of policy implementation)

In addition to the government's lack of information about recipients, the section at the internal affairs ministry in charge of the program was staffed by only 10 to 20

officials – and was obviously too short-staffed[4] to build a mechanism for distributing the cash handouts. As a result, municipal governments – which manage information on local residents – were naturally put in charge of the task to actually deliver the cash to the public.

Each of the municipalities mailed application forms to local residents, and processed the applications returned to them and the transfer of cash to recipients' bank accounts. The government had the option of using the information kept by the municipalities to process online applications, but it ended up developing only an entrance at the Myna Portal site, leaving work on the subsequent process in the hands of the municipal authorities. The internal affairs ministry wanted to avoid a centralized management of people's personal information by the national government, since it was concerned that such a move could run counter to the Supreme Court ruling on the lawsuit over the Juki Net basic resident register network system.[5] In its 2008 ruling on a lawsuit by plaintiffs who charged that the Juki Net system violated people's right to privacy and was thus unconstitutional, the Supreme Court said the system was constitutional on the grounds that there was no single government body or entity capable of centrally managing the resident information.

That top court ruling resulted in the tight restrictions on the use of the My Number IDs and the complicated design of the personal identification system. It has prompted the internal affairs ministry to become excessively guarded against centrally processing people's personal information and, as a consequence, led to the creation of as many as 1,700 different systems at the municipal level. An official in the Cabinet Secretariat said the top court ruling on the Juki Net lawsuit has become something of a trauma and that the ministry, following the ruling as a golden rule, always balks at exploring the issue any further.

Information about applicants accepted through the Myna Portal site (whose entrance was prepared by the government) was stored at the Japan Agency for Local Autonomy Information Systems (J-LIS), from which each municipality downloaded applicant information stored in zip files, and checked the contents of the application in unzipped CSV forms, converting the information into data for bank transfers to process the payment. What became a bottleneck in this process was the work to collate the application information with the resident data in the basic resident register managed by the municipalities – as well as to ascertain the information and check against duplicate application or form defects. In many of the municipalities that did not have enough time to develop a system for matching the data in the application made through the Myna Portal site with the resident information in their possession, the staff had to print out tens of thousands of sheets of application forms to visually check the data. Moreover, due to problems in the specifications of the page, the application forms on the Myna Portal site prepared by the government did not exclude applications by someone other than the head of a household, or duplicate applications, and had no limit on digits where the applicant was to input numbers – and thus were prone to many more mistakes in the application than on the paper forms mailed out by the municipalities. The government amended the

specs of the application page on the site upon requests from the municipalities, but the changes made to the upstream system halfway through the operation resulted in more work for the municipalities running the downstream system.[6]

In the face of such troubles, the association of mayors of ordinance-designated major cities, whose deputy chief, Chiba Mayor Toshihito Kumagai, was actively commenting on the problem of delay in the cash handout through online applications, issued a statement on June 26 calling on the government to take steps for expediting the payment.[7] In the statement, the mayors charged that the launch of the system without due consideration for the clerical process following the applications resulted in large numbers of duplicate applications or errors in input information, thus causing a massive workload for checking and correcting the forms. They pointed out that since the system was designed without taking the opinions of municipal authorities into account, staff at the municipalities had to check the data on enormous volumes of online application forms, which resulted in excessive workloads for staff at big cities with large populations and hampered the speedy delivery of cash to their residents. The workload was indeed so heavy that more than 100 municipal governments suspended accepting online applications for the cash handouts after the city of Kochi first took such a step.

Some municipalities set up their own websites for online application – along with the ones that came by way of the Myna Portal site – to make the subsequent work process easier. But since many local governments had ordinances that restrict putting up personal information online, the launch of such sites required a time-consuming process, including screening by local councils for protection of personal information. Eventually, the moves by municipal governments to set up their own websites for online applications did not become widespread, hampered by the varying provisions of local ordinances for protection of personal information among local government.[8]

Aa a consequence, it not only took an enormous amount of time to process the applications, but residents rushed to the reception counters at some local government offices or made massive numbers of phone calls to the municipalities. The act by the national government to set up an entrance at the Myna Portal site for online applications caused confusion at some municipalities and delayed the payment.

Commenting on the heavy workload imposed on municipalities for executing the program, an official with a local government said, "I understand that they were in a rush because the number of COVID-19 patients was increasing rapidly, but the national government should know that the work is not done once the municipalities have been commissioned to do the task. There's no way that the national government can leave it all up to the capacity of each municipality now that the money has been deposited with the local governments."[9]

1.1.3. Constraints that policy implementation power impose on design of policy programs: Were options other than the uniform, household-based cash handouts

possible?

After a series of flip-flops over the cash handout program, the government eventually decided – in a political judgment – to provide a uniform amount to everyone irrespective of income levels. Initially, however, the option of changing the amount according to the recipients' income was also considered. In fact, government officials, in light of the objective of the program and tight fiscal constraints, appear to have explored a scheme that would deliver cash to people who needed it according to their income. "In view of the logic behind the policy program, everyone would agree that it is more reasonable to distribute more money to people who are in trouble,"[10] a senior Finance Ministry official noted in an interview in September, while a ranking official of the Ministry of Economy, Trade and Industry also said, "I still believe it is the right concept to offer a sizable amount of money to those who are really in need."[11]

Practically speaking, however, it would have been impossible to fine-tune the amount of the cash handout in accordance with the income level of each individual – as was done in the United States. The internal affairs ministry, which was put in charge of the program, was unable to tap into the income data of individuals since people's tax payment records could not be linked to the information on applicants for the cash handouts. Since the government keeps tabs on people' income on a household basis, the handouts needed to be delivered to each household, not to the individuals.

In fact, a program considered before the government settled on the uniform ¥100,000 handout to each individual – to provide ¥300,000 in livelihood support to households that suffered income cuts in the COVID-19 pandemic – had some problems because the loss of income was assessed on a household basis. Its criteria for eligibility for payment was criticized as unfair because some of those households would be eligible while others would not be depending on the income situation between the husband and wife – some couples even applying to divide their households due to the issue. Eventually, the government, in a political judgment that prioritized equality for all, decided on a uniform payment irrespective of income level, but it did not change the idea of providing the handouts on a household basis. Payment on a household basis makes it impossible to adapt the amount of handout according to the income level of each individual. It also led to the problem in which victims of domestic violence who had escaped from their violent spouses might not receive the handouts because the payment for all members of a household was made to the head of the household. Upon criticism from the public and the opposition parties, some exceptional measures were taken to address this problem of domestic violence victims, but the measures still required cumbersome procedures. The problem was not entirely resolved – including that of victims of domestic violence that had not come to light.

In responding to an inquiry by the Kobe Shimbun,[12] the internal affairs ministry said that the cash handouts were provided to households, not to individuals, because of

the need to support household finances and the greater workload for municipalities to process the payment if it was to be made to each individual. However, payment to each individual would not substantially increase the workload on the part of the municipal governments if the necessary data was adequately prepared and the process digitalized.

1.2. Points of discussion on distribution of masks to all households

1.2.1. Facts about the program and comparison with the case of Taiwan

The program to distribute a pair of gauze masks to all households – ahead of the ¥100,000 cash handout – was widely criticized and ridiculed as the "Abenomask." As people's fear of COVID-19 infection grew following the nationwide closure of schools at the beginning of March, the supply of disposable masks – nearly 80 percent of which relied on imports from China – ran extremely short on the shelves of retail stores. As countries around the world competed with each other to secure personal protective equipment (PPE) for medical professionals, hospitals and nursing care facilities were hit by a serious shortage of PPEs for their staff. As a measure to resolve these problems, Prime Minister Shinzo Abe announced the plan to distribute gauze masks to all households at the April 1 meeting of the government's COVID-19 headquarters.

The government completed distribution of the masks to all households nationwide by June 20, 2020. Given that unlike the cash handout, distribution of the masks required building a supply chain from manufacturing to the physical delivery to each household, it was understandable that the program took considerable time to carry out. Still, it is undeniable that, from the viewpoints of the public, the government was unable to deliver the masks to the public when they were most needed – the delivery continued through July, well after the public outcry over the shortage of masks "passed its peak in late April,"[13] as a senior Cabinet Secretariat official put it.

Meanwhile, the government of Taiwan, which was similarly confronted with an acute shortage of face masks, managed to stabilize supply and demand by intervening in the market from an early stage, and started exporting masks on June 1.

From its experience of the SARS epidemic, the Taiwanese government anticipated that masks and other equipment would be in short supply due to the COVID-19 outbreak. It banned the export of surgical masks on January 24, and seized all masks available on the island on January 31. On February 3, it announced that it would restrict citizens' purchase of masks and put the measure in effect three days later. People who wanted to buy masks had to wait until the day of the week designated by the last digit figure of their national ID numbers, and were able to buy them within the daily limit for each person – their purchase history being confirmed by the electronic records on their

health insurance cards.

At the same time, private-sector engineers developed and released a map of more than 6,000 retail outlets showing their stock of masks – automatically updated based on data disclosed by the government. The government in turn took steps to boost the domestic production of masks – the daily output capacity was increased tenfold from 1.88 million masks at the end of January to 20 million by May 17. As the domestic supply and demand of masks stabilized – with the government's stockpile reaching up to 300 million – the export ban was lifted on June 1 and shipment began to Japan and other countries. The government also took steps to enhance convenience for people, introducing the "e-mask" system with which people could make reservations on the internet for purchasing masks and receive the products at convenience stores and supermarkets.

In Japan, the government used the Act on Emergency Measures for Stabilizing the Living Conditions of the Public, enacted at the time of the oil crisis of 1973, to ban the resale of masks at inflated prices beginning March 15, and asked private-sector firms that had earlier not been producing masks, such as Sharp Corp., to join in increasing domestic output. But the shortage of masks at retail stores was not quickly resolved. It was clear that an increase in imports and domestic output would not catch up with the surging demand for disposable, unwoven fabric masks. Amid such circumstances, the delivery of gauze masks to all households was aimed at stabilizing supply and demand in the market and prioritizing the supply for medical institutions. A member of staff at the Prime Minister's Office said that the idea behind the program was that masks withheld in the domestic market would be released to retail stores if prices went down with the distribution of free masks. "We tried to restore the supply-demand balance by delivering the gauze masks to all the public," the member said.

In Japan, which has a much larger population than Taiwan, it would likely have been difficult for the government to fully control the supply of masks by buying up all the stock available. It is worth noting, however, that Japan was unable to do what was possible in Taiwan with the latest technology – including the flexible use of personal identification numbers and health insurance cards for adjusting supply and demand in times of crisis, as well as sharing real-time information on the domestic stock of masks.

1.2.2. Information needed for execution of the policy and design of the delivery program: A pair of masks delivered to each household using the postal service network

As in the delivery of the cash handout, the government's lack of accurate information on people's addresses and households created constraints in the design of the program to distribute gauze masks. Aiming to distribute the masks speedily without going through municipalities, the government took a rather pragmatic approach to the program's

design, including where to deliver the masks and the number of masks to be delivered to each household.

Instead of matching the number of masks delivered to that of the members of each household, the government decided to distribute a pair of masks to all households – since the average household had 2.2 members. Since it was going to take too much time if the delivery was made by way of municipal authorities,[14] the government used Japan Post's "Town plus" service of delivering the same mail to all mailboxes in a targeted area – which had been used earlier in distributing masks in Hokkaido.[15] The service was an effective tool to make sure that masks would reach all households – although it delivered the masks to vacant houses and offices as well.

1.2.3. Operation to carry out the program: Joint operation involving multiple ministries

In normal times, the Economic Affairs Division of the Health, Labor and Welfare Ministry's Health Policy Bureau is responsible for the supply of medical equipment such as surgical masks. But the health ministry officials were kept busy with the response to the COVID-19 outbreak aboard the Diamond Princess. Furthermore, the routine work of staff at the division was mainly allocating personal protective equipment to medical institutions and nursing care facilities, and they lacked experience in procuring those supplies in times of emergency, which was all about "pushing through the impossible."[16]

Therefore, a team of several senior-level officials at the Ministry of Economy, Trade and Industry, including those from its Medical and Assistive Industries Office, was formed and deployed to assist the health ministry.[17] Initially, the METI team worked in a room on the second floor of the ministry's main building, but when the joint operation between the two ministries for procuring masks and other medical supplies was launched on March 9, they both began working together in the auditorium at the health ministry. A METI official recalled how the METI team initially had trouble communicating with the health ministry staff – phone calls to the health ministry officials would not get through and those officials were often away on urgent missions – until it was agreed, upon instruction from the Prime Minister's Office, that they should work together as one team.

Of the members of the joint operation, METI officials mainly took charge of procuring masks and other equipment from domestic and overseas suppliers, while the health ministry staff was responsible for distributing supplies to the parties that required them. The operation also involved the internal affairs ministry, which proposed using the Town plus service of the Japan Post, as well as the IT office of the Cabinet Secretariat, which took part in the efforts in terms of digitalization such as the introduction of the G-MIS (Gathering Medical Information System on COVID-19) system. A senior METI official recalled that as the global competition intensified for securing limited resources,

there was a clear instruction from the Prime Minister's Office and other parties to put priority on speed in the execution of urgent measures. METI and the health ministry worked together, with support from the Finance Ministry on budgetary steps, to engage in tough negotiations with the trading houses that brokered the purchase of the supplies – which often focused on the specific conditions to be presented to suppliers in order to get hold of the necessary equipment.[18]

Such flexible personnel deployment and operation – in which officials from METI and other government bodies were deployed to assist the policy implementation power of the health ministry – were observed in procuring and distributing various supplies, including masks and alcohol disinfectant liquid. Initially, about a dozen or so METI officials were deployed to the joint operation with the health ministry, but the number of those dispatched to the health ministry eventually grew to about 100 at its peak, according to the senior METI official. Many other METI staff were also involved in the procurement of medical supplies to back up the team deployed to the health ministry, so as a whole, METI's manpower of 250 to 260 was set aside for the operation, the official said, indicating that it was a fairly large-scale joint operation across multiple ministries.

The government commissioned Kowa Co., Itochu Corp., Matsuoka Corp., Youthbio and Shima Trading to supply the gauze masks for distribution to all households at a total budget of ¥44.6 billion. Initially the names of Youthbio and Shima Trading were not disclosed, and the government came under criticism that it engaged in an opaque no-bid contract with those firms. In late April, defective products were found among the masks distributed for use by pregnant women, and recalling and checking those masks delayed the execution of the program. Those problems, along with the fact that distribution of the gauze masks continued even after the supply-demand balance of nonwoven fabric masks was restored in the market, provided more ammunition for the media and opposition parties to criticize the government over the program.

1.3. Positive evaluation of "policy implementation power" and issues as seen in the cash handout and mask distribution programs

1.3.1. Positive aspects

The Special Cash Payments was delivered to 99.3 percent of targeted recipients as of September 11, 2020, while the distribution of gauze masks to all households was completed by June 20.

Staff at many municipal governments worked day and night to process the payment of the Special Cash Payments. Local governments that had pursued advanced digitalization of administrative operations and "smart city" efforts took various initiatives

for speedy delivery of the cash to their residents, including Kobe, which was the first among cities with a population of more than 1 million to begin payment (on May 18), and Kakogawa, Hyogo Prefecture, which launched on May 27 its own website for online application for the handout.[19] As for distribution of the gauze masks, officials involved focused on a pragmatic objective – even though the design of the program might have been a bit rough[20] – of making sure to deliver the masks to everyone out of available resources while the prospect of supply was still unclear.

In both cases, the government should be applauded for delivering the goods and the cash to nearly all of the targeted recipients in the large-scale programs aimed at all the people in Japan despite the various constraints on its operation.

1.3.2. Problems in program execution

On the other hand, there were three common problems in the government's execution of the cash handout and mask distribution programs. First, as explained earlier, the government's poor information infrastructure made it impossible to design schemes that made full use of digital technology.

Second, overall management of the programs was lacking[21] as the priority was placed on delivering the cash and the masks as quickly as possible. Just as the saying "Haste makes waste" goes, the national government would likely have been able to avoid confusion in the cooperation with municipalities in processing the cash handouts if it had spent enough time on testing and adjusting the specifications of its system with local governments, and thus would have delivered the cash without delay. If the government had made sure to get the commissioned suppliers of the masks to thoroughly check their products, it could possibly have averted the confusion over the recall of defective masks and the subsequent delay in their distribution.

The third problem was poor policy communication. Online applications for the cash handout were intended to enable a prompt, non-contact distribution of the money, but the subsequent delay in delivery left people discontented and wondering when they would get the cash. In the U.S., the government offered free apps to enable recipients of a similar program to track the process of the cash delivery. The city of Yuzawa, Akita Prefecture, launched a trial system to enable residents to use the LINE app to follow how their applications were being processed. In executing such a closely watched policy program, it is important to inform the people of its progress in a transparent and timely manner in order to ease anxiety.

Public communication on the mask program was also problematic in terms of the timing of the explanation to the public and the way in which the government's message was received. When Prime Minister Abe announced the program at the April 1 meeting of the government's COVID-19 headquarters, it was explained as part of a

broader scheme that medical institutions and nursing care facilities would have priority in the supply of masks, while washable and reusable gauze masks would be distributed to ordinary households. However, distribution of gauze masks to households was highlighted in the media reports of the announcement. That led to the public impression that gauze masks were the first item that the government would be delivering to the public in the COVID-19 crisis – even ahead of the emergency economic package unveiled on April 7 – and left many people criticizing the government over its priorities in dealing with the emergency. A METI official recalled, "That was probably a problem in the way the announcement was made. It sounded funny – that the government was distributing a pair of masks to each household before delivering the cash handout. People were saying they were in financial trouble and needed money, and then the government offered a pair of masks."

Some attempts were made to explain the government's intentions behind the mask program. Fumiaki Kobayashi, director of the Liberal Democratic Party's Youth Division, posted messages on Twitter that "Since the outline of the extra budget will be unveiled next week, the distribution of masks will not use up resources for other measures such as the cash handout," "Some may say that there are many other things to do before distributing masks, but we have to do everything we can simultaneously," and that "people are feeling anxious because they can't see the entire picture of the support measures." Overall, however, the government's policy intentions behind the distribution of gauze masks were not fully understood by the public. Better communication with the public should have been considered as part of the efforts to support the government's policy implementation.

2. Digitalization of policy implementation and outsourcing administrative resources in a crisis

Administrative needs become temporarily inflated in times of crisis. It is not practical for the government to maintain the redundancy and expertise to prepare for all kinds of emergency in normal times. In the case of a crisis, it is essential for the government to transfer some of its operations as necessary and flexibly use the resources of outside parties. Many of the operations in the nation's response to COVID-19 were carried out in a public-private sector cooperation – either at a cost or for free – including the collaboration with All Nippon Airways, the local Japanese commerce and industry association and Hotel Mikazuki in Katsuura, Chiba Prefecture in the repatriation of Japanese from Wuhan, China on chartered flights, commissioning execution of the subsidy program for sustaining businesses to Dentsu Inc., and a nationwide survey by Line Corp. based on an agreement with the health ministry.

In this section, we review the process of developing COCOA, a COVID-19 contact tracing app. It was a pioneering project in that development of the Contact

Confirming Application (COCOA) was initially proposed by the private sector, that several private-sector companies and organizations cooperated with its development at their own expense, and that it led to the creation of the government's so-called Tech Team with members from multiple ministries. On the other hand, the government's final judgment in adopting its formal app for COVID0-19 contact tracing left some of the private-sector partners distrustful of the government. We examine whether the government was able to adequately execute its policy in a project that involved public-private sector cooperation in a crisis – and entailed digital development that will be increasingly important for the future – by flexibly tapping into the right private-sector resources for the job.

2.1. The process of COCOA development as a case of outsourcing government operations

The development of COCOA, a smartphone app to detect, record and notify close contact with people infected with the novel coronavirus using the Bluetooth function, followed the example of measures already taken in Singapore and other countries to prevent COVID-19 infection. After its release by the health ministry on June 19, when restrictions on travel across prefectural borders were lifted, the number of its downloads reached some 16.92 million by September 15, while 767 people who tested positive for the virus registered on the app.

METI, which had been gathering information on various measures taken in other countries on COVID-19, began exploring the introduction of a contact-tracing app in Japan after the government of Singapore released such an app, TraceTogether, on March 20. Also, in the private sector, some members of Code for Japan (CfJ), a group of civic technology engineers, started weighing the development of a contact-tracing app to combat COVID-19 infections in late March.

From late March to early April, CfJ founder and director Haruyuki Seki and METI officials worked together to take the initiative in developing the app – because "health ministry officials were probably too busy" with other things over the pandemic, as one METI official put it. They together visited experts on infectious diseases, Liberal Democratic Party lawmakers, members of the ruling party's special committee for promoting a digital society, officials of the Cabinet Office and the Prime Minister's Office to explain the need for developing and introducing such an app. Around the same time, a group called COVID-19 Radar, led by Kazumi Hirose, a cloud engineer for Microsoft Japan, also embarked on its own development of a contact-tracing app.

On April 6, the government's Anti-COVID-19 Tech Team, headed by Yasutoshi Nishimura, minister in charge of combating the novel coronavirus disease, was set up. Masaaki Taira, state minister for the Cabinet Office, who had also been approached by

the CfJ, effectively served as the hub for launching the cross-ministerial team, along with Gaku Hashimoto, state minister of health, labor and welfare, who was exploring anti-infection measures by visualizing data on people's traffic kept by mobile phone carriers.

The Tech Team proceeded with discussion over developing a contact-tracing app as one of its key projects. At that point, three parties – CfJ, COVID-19 Radar and Rakuten Inc. – were developing contact-tracing apps, and CfJ was deemed the most favored candidate.[23] In a press release on April 15, CfJ said that it was developing such an app compatible with the shared standards of technology unveiled by Apple and Google on April 10, and was aiming for its release by early May. State minister Taira told the April 21 meeting of the Tech Team that the Japanese version of the contact-tracing app was being developed by "Code for Japan and other parties" with support from related government ministries, according to the minutes of the meeting. At this point, it was assumed that each of the three parties would release its app while cooperating with one another by unifying their standards for mutual compatibility.

Development of the apps took a new turn when Apple and Google announced that they would authorize the use of their technology for only one app in each country – and that the app must be either developed or used by the nation's public health authorities. That meant that the health ministry, instead of METI, which had led the project thus far, needed to take ownership of the development of the contact-tracing app – and that the apps being developed by the three parties needed be unified into one.

METI, which had been planning to secure the necessary budgetary allocation for the project in the second supplementary budget for fiscal 2020, asked the health ministry to take over the task. However, the health ministry at that time was preoccupied with other measures to combat COVID-19, and had little extra staff and resources to spend on newly launching a procurement process for developing the contact-tracing app. As a result, the health ministry combined the contact-tracing app project with the updating of its HER-SYS (Health Center Real-time Information-Sharing System on COVID-19), partly because the app needed to be linked to the HER-SYS system at some point for registration of people who tested positive for the novel coronavirus. In that process, the ministry, without reviewing the dealings with each of the three parties thus far or examining in detail the comparative advantage of the apps being developed by them, decided to commission development of the contact-tracing app to COVID-19 Radar, which used technology common to Microsoft's cloud technology that was to be employed for updating the HER-SYS system, in the form of an additional order to Persol Process & Technology Co., to which the ongoing development of HER-SYS had been commissioned.

A government source familiar with this decision-making process by the health ministry pointed out that officials of the ministry were reluctant to choose CfJ as the developer of the contact-tracing app because they had never worked with CfJ before. Since the health ministry did not have expertise in the in-house development of computer apps and thus lacked the capacity for technological assessment, the officials decided that

"it would be safe" to commission the development to "a major company,"[24] the source added.

At the May 8 meeting of the Tech Team, the division of roles among the parties involved in the contact-tracing app project was redefined, with the health ministry now responsible for development, implementation and operation. CfJ and Rakuten were no longer developers of the app, but cooperation partners to provide support such as drafting the specifications and publicity efforts to promote broad use of the app.

2.2. Evaluation of the outsourcing of administrative resources through the COCOA project and issues

2.2.1. Positive aspects

One of the positive aspects of the development of COCOA was that it moved forward much faster than in previous government procurement projects. There were two factors behind the speedy implementation.

First, private-sector organizations had spontaneously begun developing the contact-tracing apps in a package, including the handling of personal information, the choice of technology and weighing the user interface, and several projects were already in progress by the time the health ministry formally decided on the development of such an app, which made the prompt release of the app possible. The development would have taken a considerable amount of time if the government had gone through its usual procurement process – in which the government makes the plans from scratch, sorts out potential issues, decides on specifications and then invites private-sector firms to bid for the project. It is laudable that some members of the government bureaucracy had regular exchanges with the community of private-sector engineers, which enabled the government to quickly collaborate with the development of the apps by private-sector parties.

Second is the framework of the Tech Team, which was created for the purpose of utilizing information technology in measures to fight COVID-19 and to enhance the IT capacity of government bodies. Its framework cuts across ministerial divisions, with the ministers in charge of IT policy and regulatory reform working together under the leader of the team, and state ministers from various bodies, as well as officials from the "coronavirus office," the IT strategy office, the healthcare policy office in the Cabinet Secretariat, the regulatory reform team in the Cabinet Office, the health ministry, the internal affairs ministry, METI, the education ministry, and the Personal Information Protection Commission (as observers) taking part.

In order to obtain the cooperation of private-sector firms and engineers, Yahoo, Google, Microsoft, Line, Rakuten, mobile phone carriers as well as related business organizations were invited to join the team. The framework was created with the clear objective of making use of digital technology in response to COVID-19, and several projects bore fruit, including the development of COCOA and the use of people's traffic data. Given that thus far only companies that had connections with divisions in charge of their industries at each ministry were able to take part in the development of public systems or even propose ideas, the flexible establishment of such a team, with the participation of officials from multiple government bodies as well as the private sector, was quite beneficial in promoting public-private sector cooperation.

2.2.2. Issues

On the other hand, there were issues in the way private-sector partners who took part in the development of the app were handled. With the choice of COVID-19 Radar as developer, CfJ – whose members had voluntarily worked on the development with support from the government and were close to completing it – was forced to give up the project without being able to either recoup its investment,[26] share its knowhow or cooperate. "We proposed to them to work together, and jointly met with large numbers of people within the government, and when finally the go-ahead was given,"[25] CfJ suddenly had the ladder pulled away, a METI official said.

Meanwhile, the engineer at COVID-19 Radar who developed COCOA became a target of direct criticism on Twitter for problems and specs of the app immediately after its release. It was the health ministry that should have taken responsibility and been accountable for its development, but it was an individual engineer who bore the brunt of the criticism. The fact that a private-sector party that offered to cooperate out of goodwill and with its expertise – and worked for the project in line with the government's policy – sustained such damage could potentially discourage other private-sector entities from cooperating with future government-led projects, and raised doubts about the sustainability of such public-private sector collaboration.

These cases exposed several problems in the government's system for the procurement and development of software.

The first problem was the lack of a government body with the function of a cross-ministerial command tower and ownership of system development. While the Tech Team served as an entrance to joint operations by officials from multiple ministries, it was deemed to have no further function.[27] That was illustrated by the fact that when the development of COCOA was put in the hands of the health ministry, the project was combined with the updating of an existing system – without any continuity from what was discussed at the Tech Team. In many countries that have succeeded in utilizing digital

technology, the government has a body dedicated to digital government. Japan also needs such a body with the power to examine the design of systems at the ministries in charge of various sectors, give its opinions and make changes where necessary as well as taking charge of project management from the development process to subsequent maintenance and operation.

In Japan, the IT strategy headquarters/IT office in the Cabinet Secretariat was launched in 2014 to serve as the command tower in the government's information technology projects.[28] But while governance was strengthened in line with its policy of centrally managing all developments in the digital domain, the mission of the body was limited to digitalization of government operations. It "does not have the power to set its own agenda and drive changes,"[29] as a METI official put it, and is not capable of promoting radical reforms including an overhaul of systems and workflows to suit the digital age.

Due to its scarce manpower and authority, the role of the office has in fact been limited to consolidating system information and involvement with large-scale systems. After all, the government's system development remains divided along ministerial lines – METI was in charge of the system for the subsidy program for sustaining businesses hit by the COVID-19 crisis, the internal affairs ministry was responsible for the Special Cash Payments program, and development of G-MIS, HER-SYS and COCOA was put in the hands of the health ministry – with no guarantee of continuity or connectivity across the entire government.

Second, the Japanese government has no administrative officers who can take charge of planning and process management (or project management) of system development with expertise and authority. In Singapore, the government, which has more than 1,000 in-house engineers, developed the contact-tracing app on its own, while the United Kingdom, one of the countries with advanced digital government, has the Government Digital Service (GDS) with product managers, designers and engineers under its organization. In Japan, there is no established system in which government officials can flexibly weigh the methodology of policy measures under consideration with technological expertise and, while seeking the cooperation of outside partners where necessary, resolve issues with digital technology. Project teams at ministries engaged in system development do not necessarily have engineers. The IT strategy office in the Cabinet Secretariat is staffed with expert aides to the government's chief information officer, but few of them can write program codes, and their roles are limited to giving advice or reviewing specification documents in the final stage.[30] In short, the office is not equipped with the human resources to independently take charge of a project.

The third problem is that the methodology of system development is not suited to the times. In software development in advanced economies, a method called agile development, in which software engineers quickly get feedback from end users to make improvements and provide the service that the users want, is becoming mainstream. What is important in the development of COCOA or any other system is to seek feedback from

users after its release and promptly set the improvement cycle in motion. Meanwhile in Japan, a system is built according to its specifications at a budget that includes some operation costs and updates several years later, and sold off. We need more flexibility to make orders for each phase of system development – so that outside partners can join in the development from the planning stages – and continually make improvements to the system in its operational stage. When COCOA was initially released in June, it was not publicly made known that the app was still a beta version (or a sample version under development). Insufficient supply of information to users, including poor communication at the time of its release, paved the way for criticism even before the improvement cycle kicked in.

3. Summary: Best practices and challenges in overall "policy implementation power"

3.1. Best practice: Open innovation system in normal times

When the government delivers a policy measure, what matters is building a flexible regime for its implementation and the power of frontline bodies and their staff to carry it out. Completion of the two government programs examined in this chapter – the Special Cash Payments and distribution of masks to each household – owed a lot to exactly that power and the ingenuity of the people involved.

In order to give full play to such power, you need to be prepared from normal times. Delivery of the cash handout imposed a heavy workload on the staff at municipalities across the country, but some municipalities that managed to quickly distribute the cash, such as Kobe and Kakogawa in Hyogo Prefecture, had already been promoting open innovation programs and smart city measures, and were thus quick to use the technology and make decisions. In the distribution of gauze masks to households, METI, which had built up experience in providing crisis support to other government organizations in the procurement of necessary supplies in times of natural disasters, contributed to flexibly coordinating the efforts among various ministries. In the launch of the Tech Team and development of the COCOA contact-tracing app, the "commitment"[31] of technology-savvy members of the bureaucracy as well as Masaaki Taira and Gaku Hashimoto, state ministers for the Cabinet Office and the health ministry, respectively, is believed to have played a major role.

Efforts from normal times to promote an open innovation system and digital infrastructure thus proved useful in combating COVID-19, though in limited cases. That was a best practice that should be followed in responding to future crises.

3.2. Challenges: Building the digital infrastructure

On the other hand, many people acutely felt challenges in the delivery of policy programs in ways that fit the times, in particular measures that utilize digital technology – as health minister Katsunobu Kato cited "digital transformation" as the greatest challenge exposed in the response to the COVID-19 crisis.[32] Over the years, the government has repeatedly hoisted the vision of making Japan an advanced IT society. The "e-Japan strategy" launched in 2001, founded on the enactment the previous year of the Basic Act on the Formation of an Advanced Information and Telecommunications Network Society, set a target of turning Japan into the world's most advanced IT state by 2005. But despite repeated programs and slogans – including "e-Japan II," the "new IT reform strategy," the "digital government promotion plan" and the "digital government implementation plan" of May 2019, the COVID-19 crisis exposed the slow progress of digitalization in this country. In the August 28 news conference announcing his resignation, Prime Minister Abe cited the use of different systems by each of the central government organizations and local governments, as well as the differences in the provisions of ordinances for protecting personal information set by each local government, as factors hampering digitization efforts.

The new administration of Prime Minister Yoshihide Suga, launched on September 16, put a review of digitalization policy high on its agenda. It announced plans to establish a new digital agency to take command of the related policy measures – now scattered across several ministries – and drive them forward.

Creation of a new government body, such as the digital agency, to serve as a command tower in cross-ministerial efforts and take ownership of system development may be expected to solve some of the problems at hand. But in order to build a framework that can effectively make use of digital technology, not just such organizational reform but a fundamental overhaul of the government's digital infrastructure is needed from the following three perspectives.

First, the availability of data now separately held by various government bodies must be secured. In responding to the COVID-19 crisis, latitude in the design of policy programs was constrained by the narrow scope of the use of My Number personal identification numbers authorized under law. The national government failed to build a system to centrally manage people's personal information – out of concern that it might run counter to the Supreme Court ruling on the lawsuit over the Juki Net basic resident registry network – and left the management of information in the hands of municipal authorities. Even if a new digital agency is created with the necessary organization and authority, digitalization will not effectively move forward unless the availability of various data – the very basis of promoting digitalization – is secured.

In order to address such an issue, steps need to be taken to clarify the government's role in the digital age – both in terms of information and function –

including a review of the My Number law and legislation on protecting personal information, and to sort out the associated legal issues as well as secure standardization and compatibility among different national government bodies and across local governments. Furthermore, to enable the most appropriate policy implementation in the digital age, digital infrastructure must be revamped at the "architecture" level, which will involve not only securing the availability of data but structurally sorting out the right to use data and reviewing workflows. Building a common infrastructure among central government bodies and local governments will also enable the swift deployment of best practices across the country, thus promptly spreading the benefits of digitalization. The fact that the "Kanagawa model" was developed into the G-MIS system for the entire country, and that the COVID-19 response website of the Tokyo Metropolitan Government used open source and standardized background data so that it could be used by other local governments are good examples of such an effort.

Second, a method of procurement that allows the government and the private-sector party commissioned to develop a system to work flexibly together toward their common goal. There will be a variety of possible forms of a division of roles between the two sides, but the key in any form is to build a system under which the government will not unilaterally decide on specifications and present them to the private-sector party, but the government – which takes ownership of the system development – will share with engineers the goal as to what it intends to provide to end-users by developing the system, and jointly work with the parties involved by fielding the opinions of experts and the public from the planning stage, setting a test period, improving specifications and continuously updating the system after it is put into operation.

In this respect, there was criticism that in the development of HER-SYS and the system for the Special Cash Payments, the government's insufficient understanding of user circumstances imposed an extra burden on the people using the systems on the frontlines of dealing with COVID-19. What is also important is to adapt the procurement system to enable the government to make orders for each phase of the development from the planning stage instead of having to secure the budget for system development based on fixed specifications on a single-year basis. Such a phased budgetary allocation and flexible orders will make it possible for the government to constantly keep the system updated to its best form through user feedback as in the agile development method mentioned earlier. You are required to respond quickly when a crisis breaks out. Building such a form of collaboration with private-sector parties in normal times will enable prompt cooperation and system development in the case of an emergency.

The third challenge is to secure in-house manpower with the expertise and environment to drive such reforms. In the government's digitalization efforts, many projects were put entirely in the hands of outside parties commissioned to do the job because under its current personnel system, the government has no top-notch engineers in its organization who can be involved in those projects. In Kasumigaseki, large numbers of people with expertise in their respective fields have been hired by the ministries and agencies, including technical officers with medical licenses at the health ministry who

contributed a great deal to the COVID-19 response, as well as officials with architect licenses at the Land, Infrastructure, Transport and Tourism Ministry.[33] However, few IT experts have been employed by the government, and their career path, once hired, remains uncertain. Many other countries have hundreds or thousands of IT experts in government service. If the Japanese government is to put digitalization high on its policy agenda, it needs to hire talented personnel in sizable numbers, train and promote them to build up a sufficient manpower system. We held online interviews with large numbers of people for this report, and we had the most trouble with internet connection in the interviews with central government bureaucrats in Kasumigaseki. It is clear that the IT environment at government ministries and agencies – which urge private-sector companies to promote teleworking for their employees – is far behind the private sector. More budgetary allocation to improve the digital environment at government bodies in Kasumigaseki is a must.

Efforts to build the government's IT manpower and environment in normal times will be essential to avoid a situation in a crisis where government officers, busy responding to the emergency, end up leaving it all up to outside vendors to hastily develop one system after another that are hardly of practical use.

Finally, public understanding and support will be crucial to implementing an overhaul of relevant laws and organizations. In carrying out these reforms, the government needs to candidly explain both the benefits and limitations of such measures. This kind of transparent communication will help the public to share the sense of benefit from using digital technology and lead to their trust in the government. And that trust will expedite the efforts to promote digitalization by obtaining people's understanding on challenges where public consensus is hard to achieve, such as the use of personal information that is the key to a fundamental overhaul of the digital infrastructure.

Notes
1. 98.9%, according to the Internal Affairs and Communications Ministry tally in the amount of the Special Cash Payments already distributed (as of September 8, 2020) https://kyufukin.soumu.go.jp/ja-JP/transition/
2. The program in Germany mentioned here is similar to Japan's Subsidy Program for Sustaining Businesses, and is taken up as an example of a program to directly deliver cash to large numbers of people.
3. The use of My Number cards in the cash handout program had a secondary effect of raising people's interest in the system, by drawing attention to the fact that the number of people who have obtained the cards has not increased much since its launch in 2016, and that restrictions on the use of the systems and/or lack of linkage to people's bank account information hampered a quick delivery of the cash as was possible in other countries. In fact, the number of My Number cards obtained by people increased by 4.15 million from January 20 to reach 23.25 million as of August 1, 2020, covering 18.2 percent of the population, an increase of 2 percentage points. Given that the number of My Number cards delivered to people increased by 1.83 million in the previous half-year period (from July 1, 2019 to January 20, 2020), the COVID-19 crisis more than doubled the pace of increase in people's use of the cards – although it has spread to only about 20 percent of the population.
4. Interview with a Cabinet Secretariat official
5. Interview with a Cabinet Secretariat official. It should be noted, however, that it must have been

possible to design the program to enable the national government to process the information based on data possessed by municipalities in ways that do not contradict the Supreme Court ruling on the Juki Net lawsuit.

6. Interview with an official in a local government

7. Request by the association of mayors of designated major cities for a prompt delivery of the cash handout (June 26, 2020)
    http://www.siteitosi.jp/activity/honbun/r/r02/r02_06_26_01.html

8. Interview with a local government official. The Internal Affairs and Communications Ministry issued a notification in 2017 calling on local governments to review their ordinances on the protection of personal information concerning restrictions on the supply of personal information online. However, many local governments maintain such restrictions.
    https://www.soumu.go.jp/main_content/000486409.pdf
    https://www.soumu.go.jp/main_content/000495661.pdf

9. Interview with a local government official

10. Interview with a senior Finance Ministry official

11. Interview with a senior official of the Ministry of Economy, Trade and Industry

12. Kobe Shimbun NEXT, "Why is the ¥100,000 delivery limited to heads of households – Expert answers the questions from readers" (May 28, 2020)
    https://www.kobe-np.co.jp/news/sanda/202005/0013375755.shtml

13. Interview with a senior Cabinet Secretariat official

14. Interview with a senior METI official

15. Masks were distributed to residents of Nakafurano and Kitami, Hokkaido, upon the instruction of the prime minister at the March 1 meeting of the government's COVID-19 headquarters.

16. Interview with a METI official

17. Interview with a senior METI official

18. Interview with a senior METI official

19. Interview with a local government official

20. Interview with a METI official

21. Interview with a METI official

22. Interview with a METI official

23. Interview with a METI official and a Cabinet Secretariat official

24. Interview with a Cabinet Secretariat official

25. Interview with a METI official

26. Development of the app by CfJ was made on a voluntary basis – not on the basis of any law or contract – and it was therefore unable to demand reward for the development by the health ministry or other government bodies. Still, a member of CfJ commented that there were things the company was able to indirectly gain – such as reputation and experience – even though it could not recoup its investment.

27. Interview with a Cabinet Secretariat official and internal affairs ministry official

28. https://www.soumu.go.jp/main_content/000325350.pdf
    "It is important for the government CIO, along with the CIO at each ministry, to take the leadership to strengthen the IT governance at each ministry and the government as a whole. Under a common rule, the government CIO and CIO at each ministry need to grasp the detailed information concerning the government's information systems, and proceed with concrete efforts across government sectors such as upgrading and improving the efficiency of work, as well as appropriate response to the operation risk of information systems including information security."

29. Interview with a METI official

30. Interview with a Cabinet Secretariat official

31. Interview with a Cabinet Secretariat official

32. Interview with health minister Kato (September 8, 2020)

33. For example, of the 679 people hired for career-track jobs in government service in 2018 by passing exams for graduates of universities and graduate schools and exams for veterinary medicine and design, 331 have such expertise in their respective fields.