Impacts of COVID-19 on Agricultural Water Management in Japan

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1. General overview of the spread of the COVID-19
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1. General overview of the spread of the COVID-19 in Japan

| Japan   | Coronavirus Cases: 1,726,527 | Deaths: 18,349 | Recovered: 1,706,997 |

https://www.worldometers.info/coronavirus/country/japan/
2. Impacts on agriculture and lives in rural area

- It can be said that the spread of COVI-19 in Japan has been relatively controlled.
- One of the reasons for this was the thorough implementation of “self-restraint measures” such as avoiding “three Cs” (San-mitsu), washing hands, wearing masks, and refraining from opening restaurants.
  - **three Cs**: Closed spaces with poor ventilation, Crowded places with many people nearby, Close-contact setting such as close-range conversations
- Rapid progress in vaccination is also said to have had an effect.
- Particularly in rural areas, there were relatively few opportunities for infection, and voluntary restrictions were thoroughly enforced, so the infection did not spread widely, and the direct impact was not significant.
2. Impacts on agriculture and lives in rural area

- Although there was little direct impact on agriculture, there were indirect effects such as the suspension of school lunches due to the closure of schools and the reduction of business at restaurants, resulting in changes in the quantity and content of food demand and some changes in prices.

- There were no major changes in rural life, but there was a slight expansion of choices, such as moving from urban areas to relatively safe rural areas, where people could do the work they had been doing in the city remotely.

- This opportunity to change lifestyles may have a long-term impact on the significance of life in rural areas and the development of conditions for such a change.
3. Impacts on water resources management including domestic water supply

- In Japan, the impacts of COVID-19 infection on water resources management was negligible.
- No particular changes were observed in the operation, conservation and maintenance of large water resources facilities.
- However, there have been many reports of slight increases in household water consumption and water supply due to changes in lifestyles, especially longer stays at home.
- On the other hand, there was also a tendency for water use charges for industrial and large water users to decrease as production and activities shrank.
- With regard to water supply and sewage treatment, technology has been developed to estimate the infection status and the number of infected people in the beneficiary area based on the amount of virus present in sewage effluent.
Water demand began to show a downward trend in March, 2020 due to the effects of the voluntary restraint of activities to prevent the spread of the new coronavirus infection. Since June, with the resumption of economic activity, there has been a recovery, but water demand has remained low compared to last year (2019).

<table>
<thead>
<tr>
<th>Period</th>
<th>2019</th>
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<tr>
<td>暴雨のみ期間 (1/1〜2/25)</td>
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<td>イベント・営業 期 (2/26〜4/6)</td>
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<td>-</td>
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<td>白雪時制の解除期間 (5/21〜8/31)</td>
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Source: Report of Waterworks Bureau of Osaka City, Japan (Sep. 2020)
4. Impacts on agricultural water management

- In Japan, the spread of COVID-19 infection has not affected or changed the agricultural water management.
- As far as Watanabe knows, there have been no cases where the infection spread to the staff of Land Improvement Districts, which are farmers organizations in charge of management, resulting in what is called "cluster infection" and affecting management.
- In each management organization, especially in large organizations managing large facilities that affect a wide area, the management system was adjusted to assume a "critical situation".
- For example, some organizations established a detailed system by dividing management personnel into multiple groups, adjusting their work schedules, and ensuring that they do not work in the same room in the office.
5. Measures taken for the impacts, including governmental project

- In Japan, the impact of the spread of novel coronaviruses on the management of agricultural wastewater in rural areas was negligible, and therefore no special government measures or projects were implemented specifically for this purpose.
- In general, however, the basic precautions and suggestions to better control the spread of the new coronaviruses in the implementation of related projects and measures were widely disseminated.
6. Challenges for the future gained from the experience

- In Japan, in recent years, the “LID System Enhancement Project” has been implemented to sustain the activities of Land Improvement Districts responsible for agricultural land and water management.
- In this project, institutional, financial, and technical improvements and succession have been attempted in order to cope with various possible situations and circumstances.
- It is thought that the response to the spread of COVID-19 infection was made within this basic trend, and the experiences have helped to strengthen the sustainability of the activities.
- The experience also confirmed the importance of the basic issue of ensuring safety in rural areas, such as assessing the possibility of flooding in hospitals and specialized facilities that house infected people, mainly the elderly.
Thank you for your attention