Sixth South-East Asia Multi-Stakeholder Forum: “Accelerating the Recovery from COVID-19 while Advancing the full Implementation of the 2030 Agenda for Sustainable Development”

Session 1: SDG 6 – Clean Water and Sanitation

Water Management in Malaysia during and post Covid-19 pandemic

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Water and Sewerage Division
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COVID19 (QUARANTINE) VS NON QUARANTINE PERIOD

Sungai Gisir, Selangor

Sungai Melaka, Malaca

Sungai Pinang, Penang
Nature heals itself

A pitch-black river in the heart of George Town turns jade green while people stay at home. As pollution levels drop sharply due to the movement control order, rivers nationwide are resolving without human interference and experts are saying that Malaysia learns from this. > See page 4 for report by LO TERN-CHERN

KUALA LUMPUR: Malaysia recorded an improvement in air quality due to the movement control order, the first world of the Environment Centre (MACEC) in Kuala Lumpur on April 14.

Environment and Water Minister Tuan Ibrahim Tuan Bellah said Air Pollution Index (API) levels dropped to a near zero level. While 24 hour API recorded 131 on Saturday, the station readings showed a near zero improvement in air quality.

He said monitoring done by the MACEC in Urga River by Valley found that leading pollutants contributing to the episode were in the period, compared with 280 recorded on March 14.

Levels of sulfate, nitrate and reactive carbon (RNC) dropped by 27 per cent and 39 per cent, respectively, while carbon monoxide dropped by 64 per cent and suspended particulate matter (PM2.5) dropped by 17 per cent.

"Other major cities such as Kuching showed similar drops in pollutants as at时候, thanks to the movement control order," he said.

Kuala Lumpur had an API of 131 on Saturday, followed by a 24 hour API of 55 on Sunday, while the overall API recorded 93.

MACEC reported that all six air quality monitoring stations nationwide.

Tuan Ibrahim said the Depart- ment of Environment (DoE) had noted the air quality was at all 25 stations in Putrajaya, Selangor, Kuala Lumpur, and very good in the Klang Valley, and other states except Terengganu.

The stations recorded near zero below 3 micrograms per cubic metre suspended particulate matters under EPA, followed by a 24 hour API of 55 on Sunday, while the overall API recorded 93.

"The reduction in API, especially in tertiary areas, is due to a sharp decrease in the amount of vehicle emissions and industrial emissions. Traffic and industrial stalls are stopped and order hunting," he said.

Tuan Ibrahim said eight out of 25 at 20 monitoring stations recorded improved water quality compared to readings taken on Saturday.

On the eight stations, he said, API did not show any changes, while 11 stations reached to a slight degree of improvement, with a slight decrease in PM2.5 level.

"Water quality at all the rivers was recorded as slight degree, with a slight decrease in the concentration of suspended solids and dissolved oxygen," he added.

Tuan Ibrahim said eight out of 20 stations recorded improved water quality compared to readings taken on Saturday.

On the eight stations, he said API did not show any changes, while 11 stations reached to a slight degree of improvement, with a slight decrease in PM2.5 level and dissolved oxygen in total suspended solids. This was attributed to less stress on water use due to the movement control order and less demand on industry and industrial sectors and no operation of industrial units.

He said there was a 90 per cent drop in rubbish collected from beaches along Sungai Klang compared to 30 per cent on Friday in 2017 and 2018. In February and March, about 30 per cent of rubbish was collected from the beaches while about 70 per cent was collected from the sea.

Tuan Ibrahim said the water quality at the Pantai Kendaki, Sungai Besar, Sungai Klang, Sungai Bebek, Sungai Rasau, Sungai Perai, Sungai Perai Tua, Sungai Selangor, and the Petaling river had improved.

He added that another stretch of Sungai Klang recorded near zero API due to the movement control order.

"The water quality in Sungai Klang near Gombak has also improved, thanks to the movement control order," he said.

Based on the readings, it was noted that there were high concentrations of dissolved oxygen in surface water in the river, which was about 50.6 per cent compared to 23.8 in February, an increase of 26.8 per cent in dissolved oxygen compared to readings taken on Saturday.

He added that on the water that was high concentration of dissolved oxygen to support aquatic life to the area.

"Water overall is in a better state, which is due to the movement control order," he said.

"This has contributed to the decrease in water pollution, even though KLD and COD readings decrease when it rains. This will help the public to vig- "Water quality is in a better state, which is due to the movement control order," he said.

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The COVID-19 pandemic has sent shock waves through societies and economies around the world.

The impact of COVID-19 were felt differently by countries on their economic capacity, governance structure and demographic characteristic.

Water supply and sanitation have become central in this pursuit as handwashing under running water to mitigating the spread of COVID-19.

Maintaining hygienic practices and the mitigation of COVID-19 is challenging especially in places where freshwater source are scarce.

High water consumption in 2020 & 2021 due to the increase in domestic consumption during the COVID-19 and the Movement Control Order

<table>
<thead>
<tr>
<th>Unit</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<td>222</td>
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<tr>
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<td>179</td>
<td>179</td>
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<td>225</td>
<td>230</td>
<td>244</td>
<td>251</td>
</tr>
</tbody>
</table>


the higher the water consumption, the higher the cost to cover capital investment and operations
NRW does not show much improvement during the MCO due to restriction to continue the works related to reduce NRW.


<table>
<thead>
<tr>
<th>Unit (%)</th>
<th>2017</th>
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<th>2020</th>
<th>2021</th>
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<td>24.7%</td>
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<td>48.5%</td>
<td>48.5%</td>
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<td>49.3%</td>
<td>49.3%</td>
<td>50.8%</td>
<td>51.7%</td>
<td>52.6%</td>
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<tr>
<td>F.T Labuan</td>
<td>32.0%</td>
<td>31.6%</td>
<td>29.8%</td>
<td>33.6%</td>
<td>37.6%</td>
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<tr>
<td>Melaka</td>
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<td>21.2%</td>
<td>21.2%</td>
<td>30.0%</td>
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<tr>
<td>N.Sembilan</td>
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<td>Pahang</td>
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<tr>
<td>Perak</td>
<td>30.9%</td>
<td>30.4%</td>
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<tr>
<td>Perlis</td>
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<td>63.8%</td>
<td>63.3%</td>
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</tr>
<tr>
<td>Selangor</td>
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<td>29.6%</td>
<td>28.5%</td>
<td>27.5%</td>
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<tr>
<td>Terengganu</td>
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<td>33.2%</td>
<td>33.8%</td>
<td>33.4%</td>
</tr>
</tbody>
</table>
## 5 Key Points For Water Sector Post-COVID 19

### Water Resources
- **Sustainable of water resources**
  - i. Off River Storage
  - ii. Inter-state water transfer
  - iii. Water grid
  - iv. Regulatory empowerment and strengthening of laws
  - v. National River Trail

### Water Security
- **Guarantee of adequate and continuous water supply**
  - i. Increase treated water margin reserves to 20% by 2030.
  - ii. Strengthen the water supply reticulation system network.

### Water Consumptions
- **Reducing water consumptions**
  - i. Reducing domestic water consumption by 160 l/c/d by 2030.
  - ii. Strengthen Water Tariff and awareness

### NRW
- **High NRW**
  - i. Reducing NRW to 20% by 2030.
  - ii. Strengthen NRW Program and available alternative.

### Water Tariff
- **Unstable tariff**
  - i. Implementation new Tariff Setting Mechanism (TSM) to determine the water tariff in Malaysia
  - ii. Alternative Water Financing (AWF)
Intensifying **Water Demand Management** to Overcome Water Supply Issues Holistically

1. **Water Tariff**
   - Review Water Tariff

2. **NRW**
   - Reduction of *Non Revenue Water* (NRW)

3. **Water Efficient Product**
   - Mandatory use of water efficient product

4. **Labelling**
   - Water efficient product labelling

5. **Enforcement**
   - Intensive enforcement - water theft

6. **Alternative Source**
   - Promoting use of alternative water source

7. **Audit**
   - Water efficient audit on big users

8. **R&D**
   - Research & Development in water supply services sector

9. **Efficient Use of Water Resources**
   - Efficient use of water resource in all sector – Agriculture, industry, domestic

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WATER SECTOR TRANSFORMATION 2040 (WST 2040)

WST 2040 IMPLEMENTATION STRATEGIES

- Towards water sector as the catalyst of dynamic growth and ensuring security of water supply
- Malaysia as the regional water industry hub.

- RM500 billions
- 87 strategies
- 106 projects RMK12
- 601 targets
- 0.45% of GDP
04 WAY FORWARD

WATER SECTOR TRANSFORMATION

Sub-sectoral Objectives

Alternative Water Financing (AWF)
To implement strategic financial mechanism to position the water sector as a new national economic sector

Advocacy, Awareness, Capacity Building and Public Participation Platform (AACB)
To improve significantly in the overall understanding of the IWRM concept across all levels and involving all sectors so as to ensure its effective implementation in managing sustainable water resources

Water As Economic Sector (WES)
To develop a new business model to drive the nation’s water industry sector as a competitive, attractive and profitable industry

Integrated Water Sector Data Centre (IWSDC)
To establish a national Data and Research, Development, Commercialization and Innovation (RDCI) Centre for the purposes of strategic planning and decision-making as well as the driver to develop local expertise and innovative technologies

Climate Change Impact and Adaptation (CCIA)
To prepare in facing the impact of climate change on the water sector

IR4.0 in Water Sector (WS)
To prepare of the water sector towards IR4.0 and the use of smart technologies to drive the development of the overall water sector

Virtual Water And Water Footprint (VW & WF)
To prepare a comprehensive and quantitative data regarding current water demand and needs as a guide to identifying the economic level of water usage by every economic sector

Water Food Energy Nexus
To have a sustainable management of the water resources vis-à-vis the Water-Food-Energy Nexus so as to ensure nation-wide social and economic continuity
Translating Commitment Into A Reality

- Reduction of NRW to 20%
- Water Consumption to 160 l/c/d
- Financial Sustainability – Full-cost recovery
- Alternative Water Resource
- Water Grid
- Raw Water Price Based on Water Quality
THANK YOU

#waterislife
#sanitationisdignity