Infrastructures stood for what they were meant on "the heavy rain disaster in July 2018"





### Asahi River flood control waterway reduced flood damage significantly.

The water level at Shimomaki water level observatory where locating in the upper

stream of Asahi River flood control waterway in Okayama Surpassed an alarming level that could trigger major floods.

On 6 July, the observatory allowed water to divest into water way in order to reduce the flood impact. It succeeded in lowering the Asahi River's water level by divesting flow into waterway at a rate of 1,300 m³/s. (The rate was 4,500 m³/s before the diversion) Finally, the water level dropped below 1.5m.

If it had not been for Asahi River flood control waterway, it could have been

overflowing the bank, which might have caused damages to 450ha and 5,050 houses in central Okayama City.

[Inundation hazardous area in case Asahi River flood control waterway were not at work.]





Keep in mind  $\sim$ How we responded to "the heavy rain disaster in July 2018"  $\sim$ 

the situation of diverting flow (on 6 July)

# The Saboonable Contain





[Kumano Town, Aki District, Hiroshima] Takigadani River (Kumano Town, Aki District, Hiroshima) contained debris flows and driftwoods

Source: on July 15, Sabo Volunteer of Hiroshima prefectural assoc.

Keep in mind  $\sim$  How we responded to "the heavy rain disaster in July 2018"  $\sim$ 

### Rerouting over a wide area linking Hiroshima to Kure: Higashihiroshima-Kure Expressway

Higashihiroshima-Kure Expressway and Sanyo Expressway were utilized as a reroute. The traffic was 1.2 times heavier than nomal during the Expressway closing.





The required time to Hiro, Kure-shi: if you take Higashihiroshima-Kure

Expressway, you can save an hour.

発着:広島(広島BC)、呉市広付近(阿賀IC) 7月18日、8月21日に実施したプローブカー調査による所要時間 国道31号経由については、一般道、都市高速(宇品~仁保)、広島呉道路(仁保~坂北)、国道31号を利用 東広島呉道路経由については一般道、山陽道、東広島呉道路を利用 3hは6:00~9:00の3時間

> Keep in mind ~How we responded to "the heavy rain disaster in July 2018"~

## The Expressway double network

Sanyo Expressway, a main corridor linking East and West was blocked. However, the function of widearea traffic was kept thanks to Chugoku Expressway and San-in Expressway. (Chugoku Expressway was reopened earlier because the section of the damaged area was converted from four-way traffic to twoway traffic for traffic users.)



### [Traffic change of Sanyo Expressway, Chugoku Expressway and Sanin Expressway]

#### 全 車 All vehicles

Sanyo Expressway (Kouchi~Hiroshima) Blocked from July 6 ~ till at 6:00, July 14

### 大型車 Large vehicles

Sanyo Expressway (Kouchi~Hiroshima) Blocked from July 6 ~ till at 6:00, July 14



Keep in mind  $\sim$ How we responded to "the heavy rain disaster in July 2018"  $\sim$