



Strengthened embankments to prevent flooding FRESH BANK Method



Daiwa House Group®

- Background -

Traditional design method

Overtopping destroys embankment

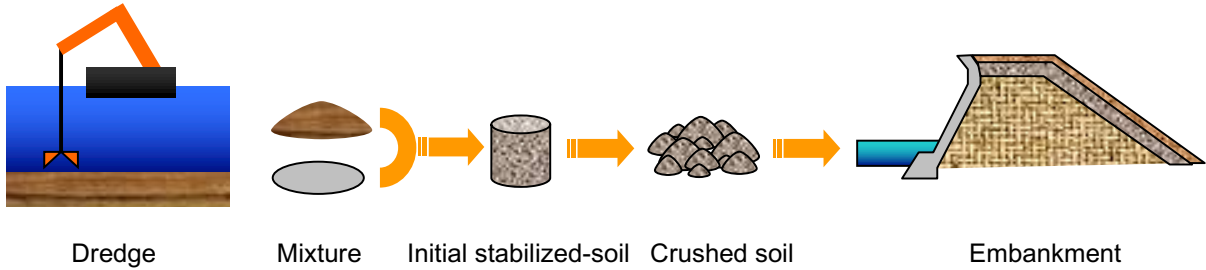
New design method

Embankments are strengthened so as not to be destroyed by overtopping.



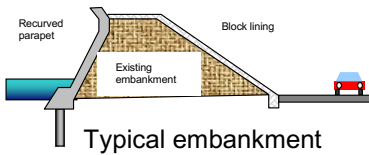
Embankment destroyed by TSUNAMI

- Method -

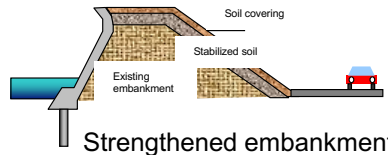


- Application example -

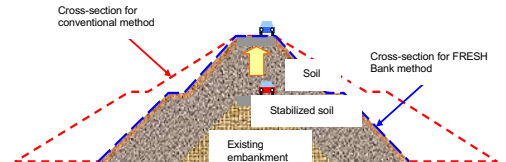
Improves earthquake and tsunami resistance by using **Crushed and Stabilized Method**. Allows effective utilization of existing embankment.



Typical embankment



Strengthened embankment

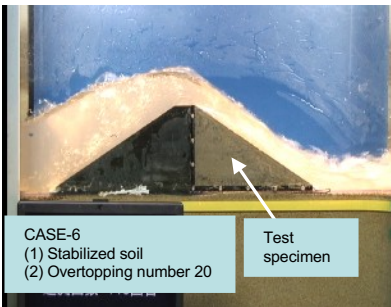


Strengthened embankment

- Laboratory test result -

Overtopping test using model embankments at Kyoto university. It proves the effectiveness of **Crushed and Stabilized Method** against overflow.

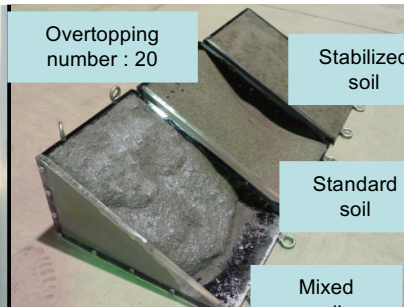
Compare : **Crushed and Stabilized Method** , sand, general soil



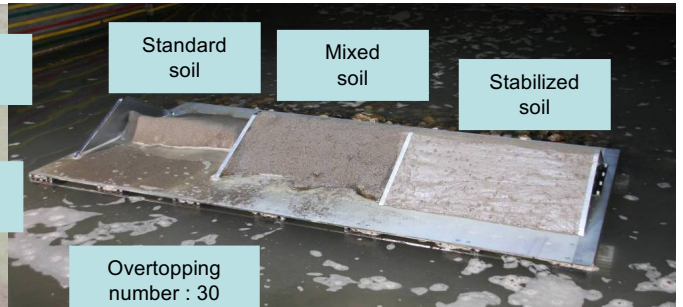
CASE-6
(1) Stabilized soil
(2) Overtopping number 20

Test specimen

Overflow test (small size)



Mixed soil



Overtopping number : 30

Overflow test (large size)