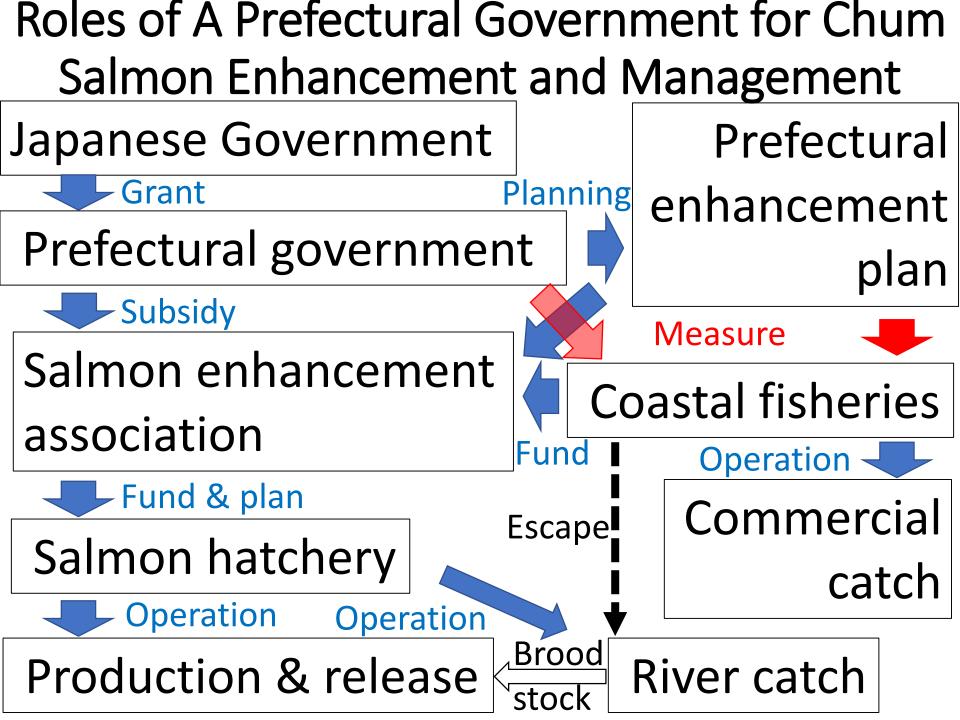
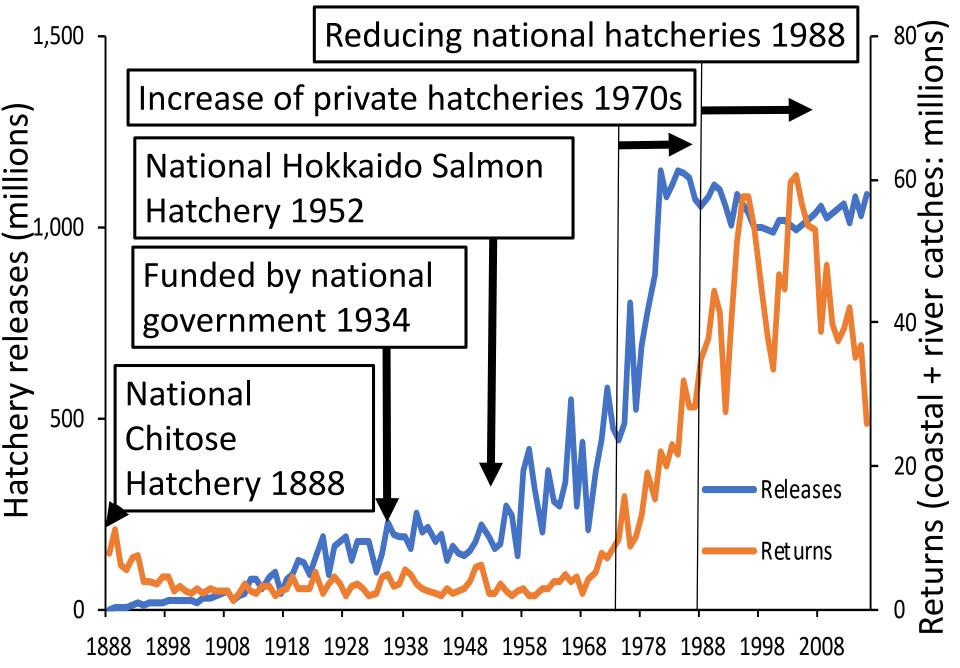


Salmon Hatchery Releases and Catches Pink & Masu & sockeye Chum & Pink masu others Honshu 2015 Catch Chum 140 thousand Chum Honshu tonnes **Hokkaido Chum & others** Masu & Pink **sockeye** Hokkaido Chum 2016 Hatchery 2015 Value Henshil Releases 72 billion yen 1,898 millions Chum (NPAFC Doc. 1694 at Hokkaido NPAFC Website)

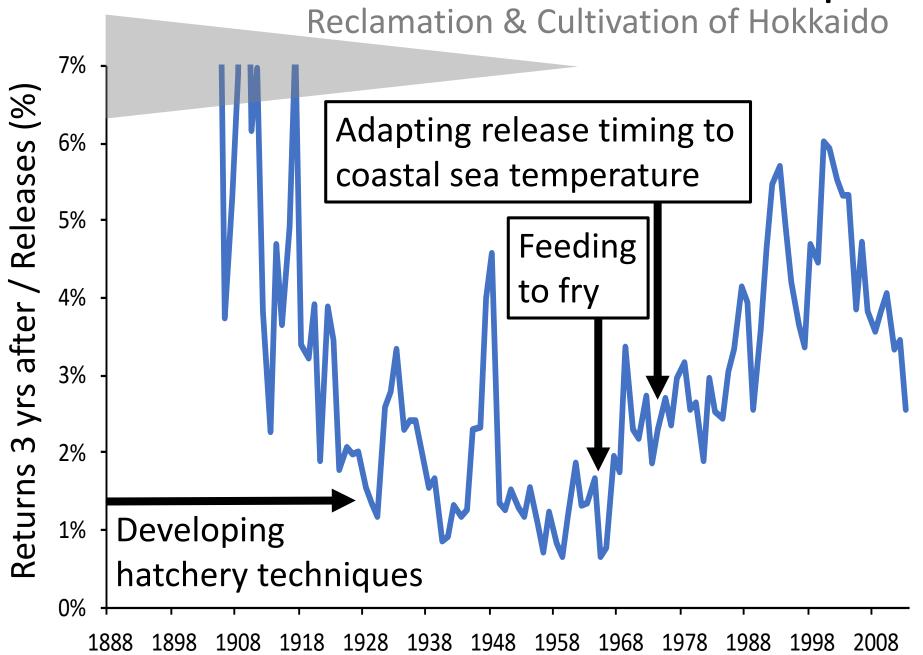
Data from MAFF Website



## Hokkaido Chum Hatchery Releases & Returns



## Hokkaido Chum Return Rate & Techniques



## Problems in Japanese Salmon Enhancement

Rehabilitation of wild salmon stocks
land and water uses threaten wild stocks

 Adaptation of hatchery techniques to changing climate
water temperature, precipitation, etc

 Branding and marketing of hatcheryreleased and/or wild salmon high enhance- and management cost

