

Sabo Technology for disaster prevention in harmony with nature

~Various Sabo facilities~

All three major rivers including Azusa River, Takase River and Himekawa River under the jurisdiction of Matshmoto Sabo Control Office have their stream sources in the North Japan Alps and flows into the Japan Sea. Matsumoto Sabo Work Office covers a wide range of areas from the upper torrents toward the midstream and takes diversified measures according to the characteristics of each section of the streams, actively working on the construction of a variety of Sabo Facilities.

Sabo allowing sediment flow out

There are a large number of steep rivers with shorter channel in Matshmoto Sabo control jurisdiction, with volcanic areas and devastated mountains typical of the North Japan Alps extending upstream. A large amount of sediment outflow in these steep rivers makes river courses unstable and sediment-related disasters serious. In the normal condition, allowing sediment to flow downstream is necessary for stabilizing the river course, maintaining the function of various facilities, reducing impacts on the ecosystem and preservation of coastal areas. In this respect, comprehensive sediment control is required in view of the consistency of the whole river-system covering the whole water flow from the mountains toward the coast. In the comprehensive river-system control, strategy for sediment movements should not be addressed at separate river areas like a water source, alluvial fan, river mouth and the coast, but comprise these whole river areas.

Along Himekawa River, sediment movements are monitored not only in the Sabo control jurisdiction under the Sabo project but also in the whole areas from stream source toward the river mouth in cooperation with the river management division. Images in monitoring cameras are transmitted through optical cables to monitor drifting sediment and suspended sediment for realization of comprehensive sediment control.

Furthermore, attempts have been made to develop Sabo dams which hold back sediment in floods and allow it to flow down in normal time.



●Urakawa Super Conduit Sabo Dam

Urakawa River basin having the landslide on Mt. Hieda, one of the three largest landslides in Japan, keeps supplying a large amount of sediment downstream. Urakawa Super Conduit Sabo Dam supplies sediment to the downstream side at normal time and controls sediment in abnormal torrential flow. The levee crown is used as a road for administration.



Ohgisawa Sabo Dam

●Slit-type Sabo Dam

The slit in the dam allows harmless sediment to flow downstream in normal condition, thereby contributing to the prevention of riverside and coast erosion. In case of floods, it controls downstream hazardous sediment in the same manner as ordinary Sabo dams. Some slits in a dam can function as fish ways, aiming at harmony with the ecosystem.