# Various Sediment Disaster Countermeasures

#### Measures against snow avalanche

Fencing is set up to protect homes from avalanches. These are bolstered by warning and evacuation systems.

#### Measures against volcanic disaster

Facilities are set up to control the pyroclastic, debris and lava flow resulting from volcanic activity. Monitoring systems have been installed to more quickly detect any danger.

**Eroded Mountainside Countermeasures** 

#### Work such as planting and fortification

#### Sediment Runoff Countermeasures

Sabo dams, sediment basins and other measures are used to prevent erosion of the river bed and anchor the foot of the mountain, while also adjusting runoff to flow harmlessly.

### **Altered Mountain Slope Utilization**

Lands created for landslide protection are effectively utilized as parks.

**Sediment Overflow Countermeasures** 

Trees are planted around the rivers (in an area

called the riparian zone) to prevent the spread

of water and sediment in the event of a flood.

## Driftwood Countermeasures

Open type sabo dams catch wood knocked over by the wind and carried in mudflow.

#### Sediment disaster countermeasures

Sabo dams catch the flow of debris.

#### Riverbed Erosion Countermeasures (Consolidation works)

Consolidation work reinforces the riverbed to keep it from eroding.

#### Measures against landslides

Groundwater is removed and large piles are driven into the earth to prevent landslides.

#### Measures against slope failures

Grid reinforcements and other restraining structures prevent collapse to protect homes.

#### Bank Erosion Countermeasures

Revetments keep riverbanks from eroding.

#### **Non-Structural Countermeasures**

A variety of non-structural measures are employed, such as installation of rainfall meters and observational equipment as well as the distribution of hazard maps.