

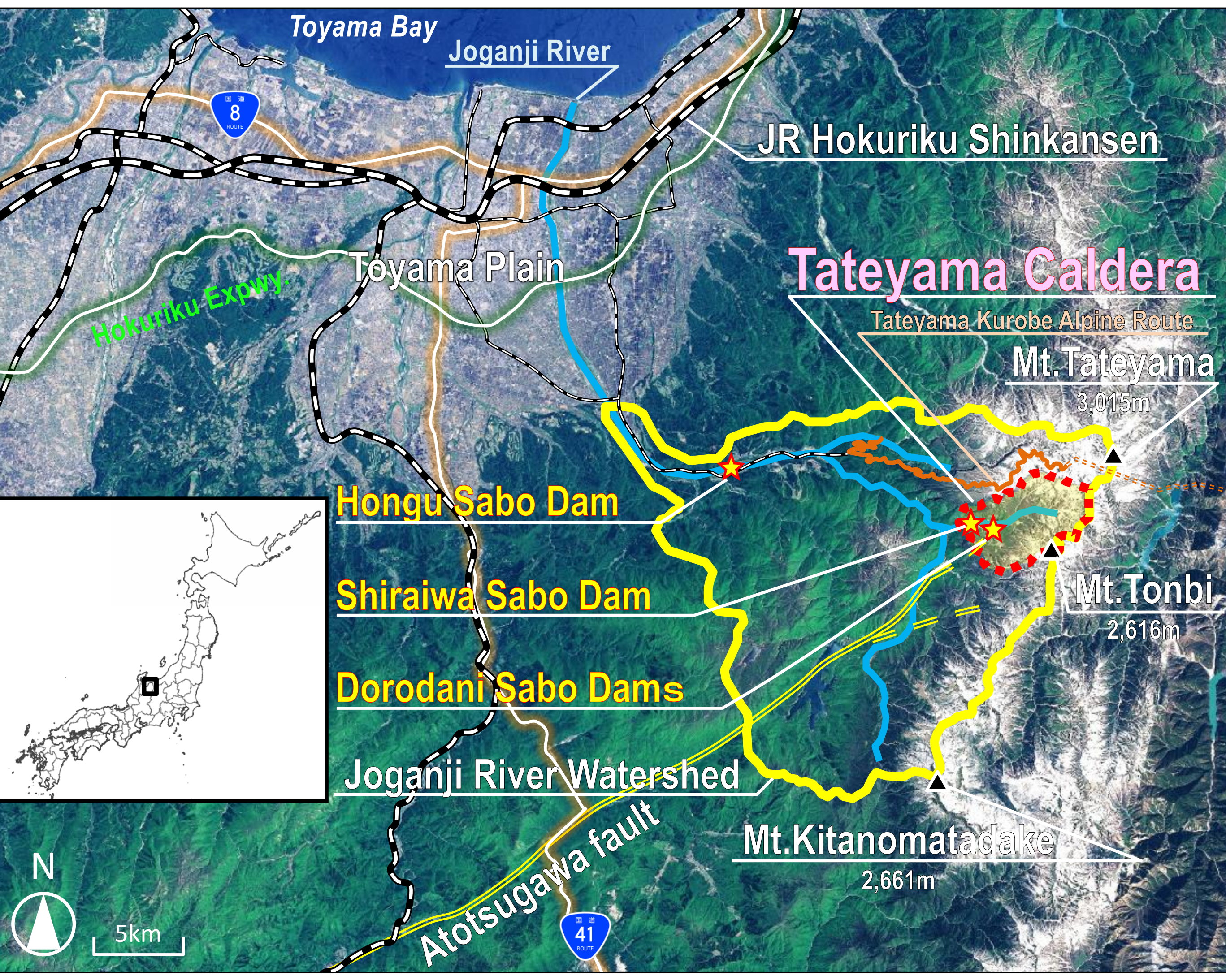
Tateyama Sabo, Disaster Prevention System

「立山砂防」の世界文化遺産登録を目指して

先人の英知と努力の積み重ねにより、水系一貫の総合的な近代技術による砂防事業が展開され、立山カルデラと常願寺川に築かれた歴史的な砂防施設群は、人々の安全・安心を守る人類共通の文化遺産としての価値が認められることから、将来に保存・継承されるよう、富山県は立山砂防の世界遺産への登録に取り組んでいます。

“Tateyama Sabo”, Aiming for Registration as a World Heritage Site

The collective wisdom and accumulated efforts of our predecessors realized a holistic watershed approach to fighting natural disasters by means of modern technologies. The historic sabo facilities built in the Tateyama Caldera and the downstream area have cultural value as a common heritage of humankind that has protected people's safety and security. We have been working toward the inscription of this site on the World Heritage List with the objective of conserving it and passing it on to future generations.



立山砂防とは

年間100万人が訪れる日本有数の山岳観光地、立山黒部アルペンルートの際に、巨大な窪地「立山カルデラ」があります。1858年の飛越大地震でカルデラ外輪山の鷲山が崩れ、約4億m³の崩壊土砂がカルデラ内に堆積し、以来、常願寺川が運ぶ土石流などにより、幾度となく災害が繰り返されてきました。1906年以降、カルデラ内外に砂防施設が次々と構築され、今日もなお下流の富山平野に暮らす人々の暮らしを守り続ける防災遺産、それが「立山砂防」です。

What is “Tateyama Sabo” ?

Next to the Tateyama Kurobe Alpine Route, one of Japan's leading mountain sightseeing destinations, with over one million people visiting each year, there is a massive depression named the “Tateyama Caldera”. Mt. Tonbi on the outer rim of the caldera collapsed during the Hietsu earthquake in 1858. The volume of the collapsed sediment was estimated to be approximately 410 million m³. Since then, many disasters have occurred due to the debris carried by the Joganji River. Since 1906, many sabo facilities have been constructed inside and outside the caldera and they continue to protect the lives of people living downstream in the Toyama plain today. This disaster prevention system which should also be considered heritage pertaining to disaster prevention is called “Tateyama Sabo”.



図-1 立山カルデラの範囲

Fig.1 Extent of the Tateyama Caldera

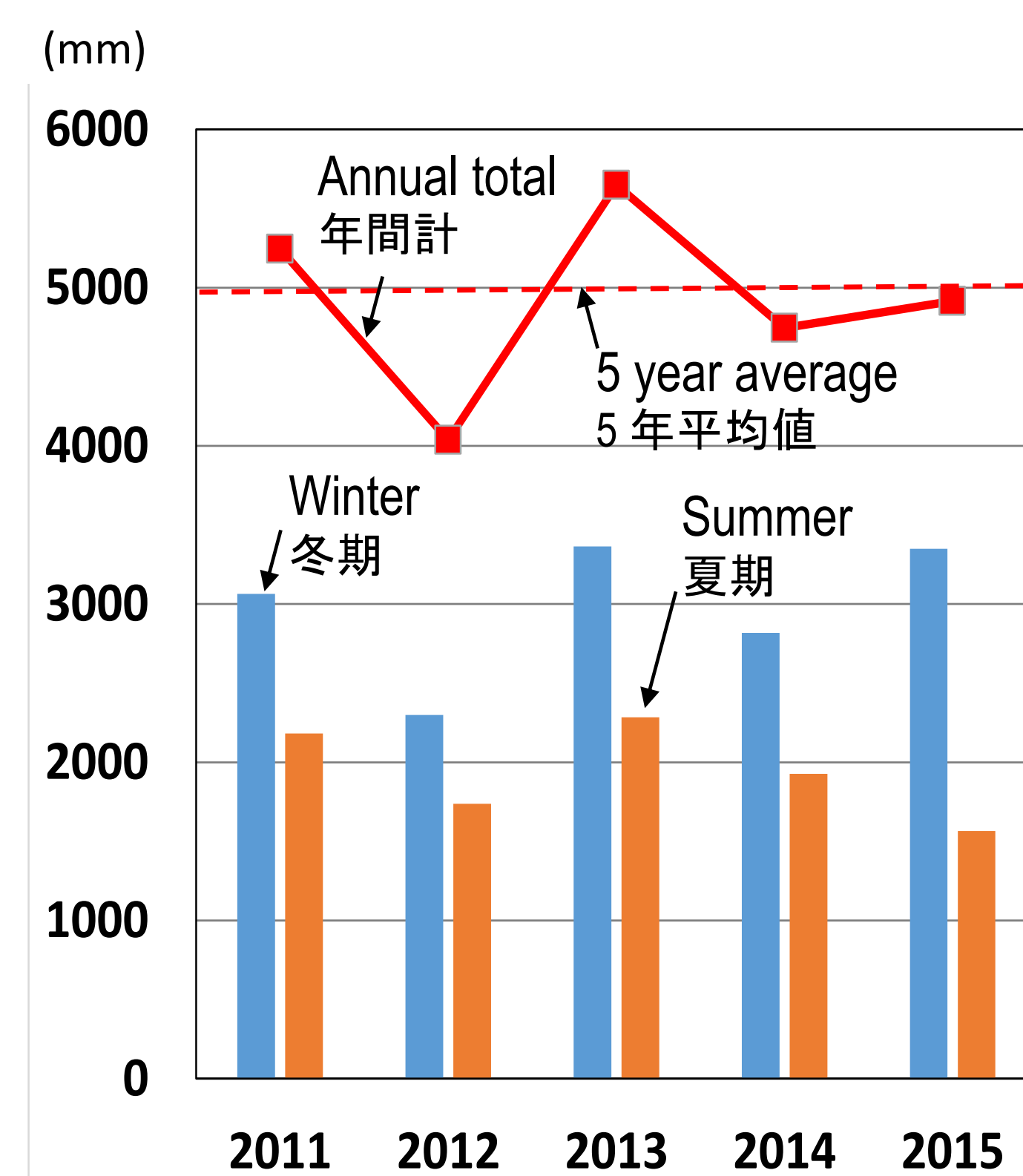


図-2 立山カルデラの年間降水量

Fig.2 Changes in annual precipitation of the Tateyama Caldera

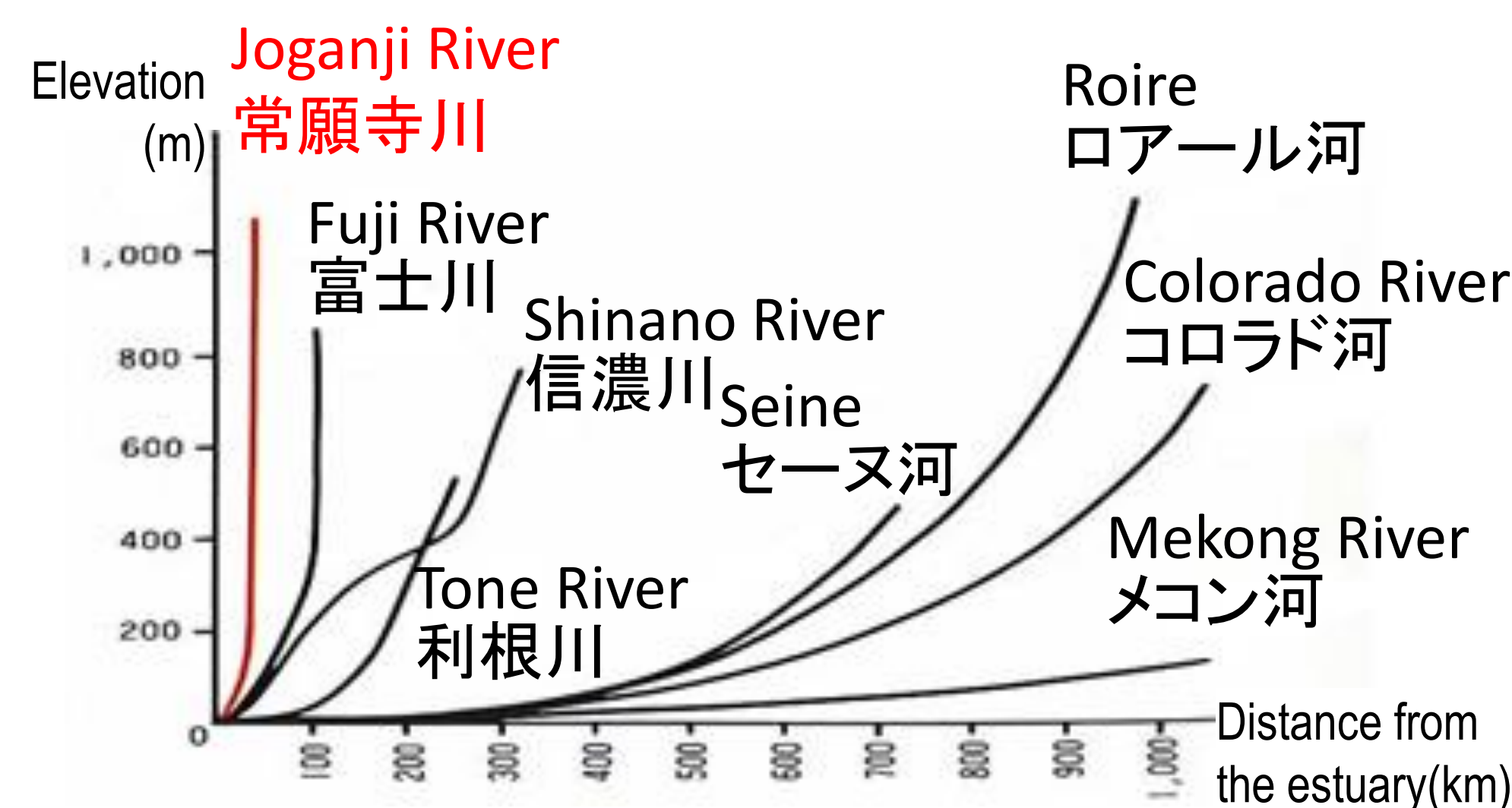


図-3 世界の河川の勾配

Fig.3 Bed slopes of rivers in the world

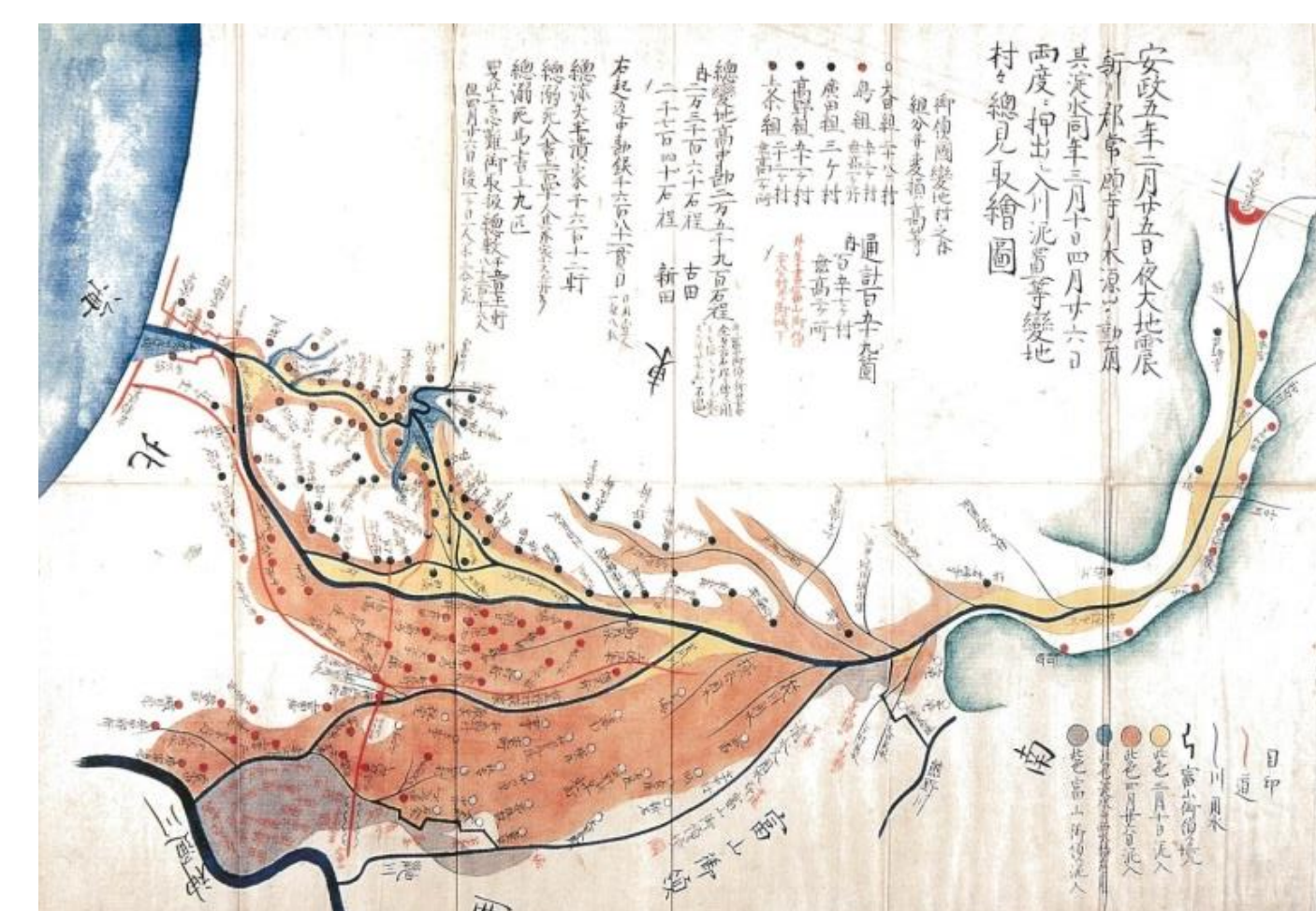


図-4 安政五年常願寺川非常洪水山里変地之模様見取図

Fig.4 Sketch of flood and landslide disaster caused by the Joganji River in 1858

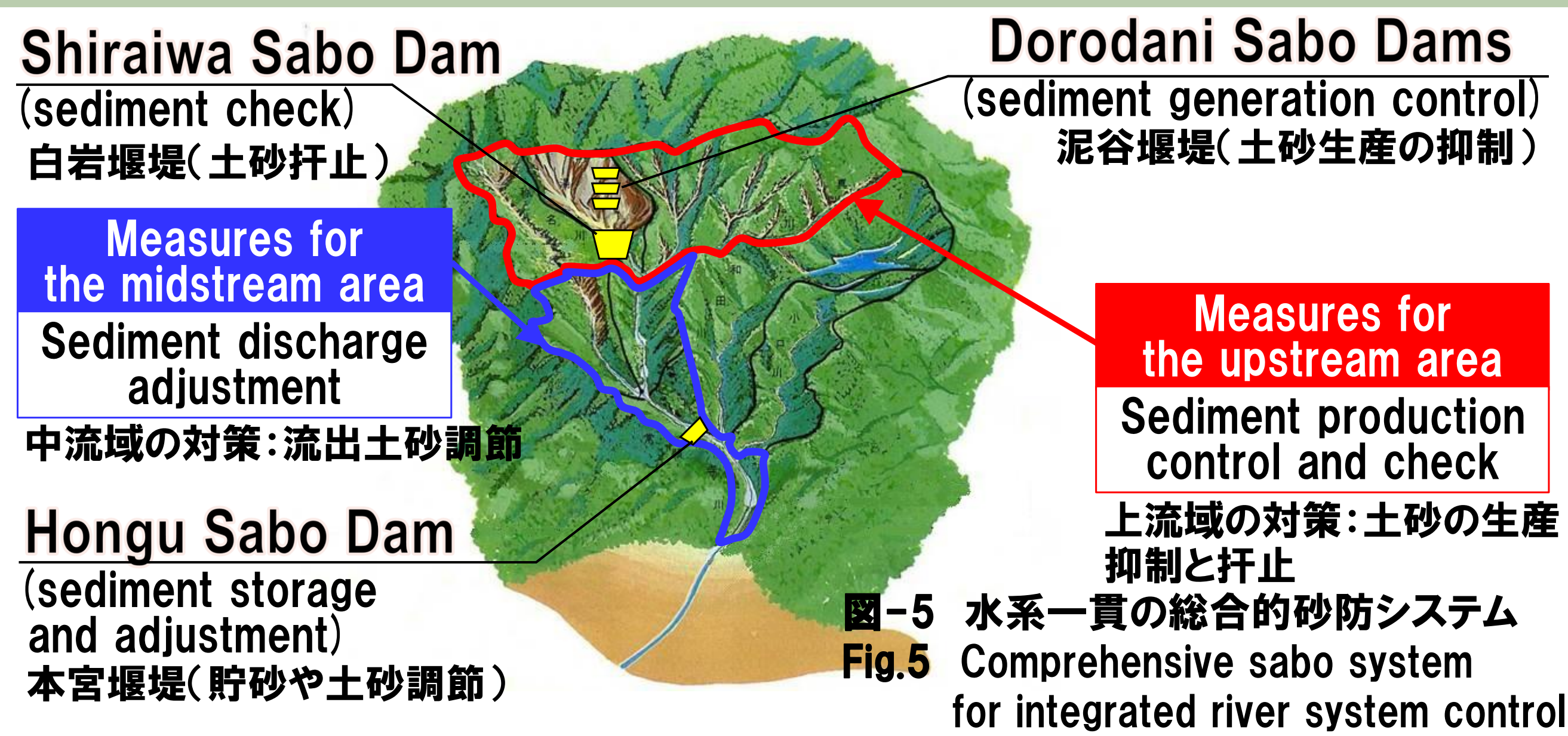


図-5 水系一貫の総合的砂防システム
Fig.5 Comprehensive sabo system for integrated river system control

立山砂防の顕著な普遍的価値

世界遺産として登録されるために必要な立山砂防の顕著な普遍的価値については、富山県が2013年に設けた有識者会議の検討を踏まえ、次の3点を提案しています。

- 1 災害が多い日本で生まれた防災の総合技術
- 2 世界の中で日本の総合的な水系管理技術が近代における到達点
- 3 近代的な砂防技術の1つの典型

Outstanding Universal Value of Tateyama Sabo

Regarding the “Outstanding Universal Value” (OUV) of Tateyama Sabo, which needs to be demonstrated for inscription on the World Heritage List, we propose the following three points based on the discussion at the expert meeting organized by Toyama Prefecture in 2013.

- 1 Comprehensive disaster prevention technology born in disaster-prone Japan
- 2 Japan's comprehensive management of water systems represents the technological apex in the modern world
- 3 A type of modern sabo technology



写真-1 白岩砂防堰堤
Photo 1 Shiraiwa Sabo Dam

写真-2 本宮砂防堰堤
Photo 2 Hongu Sabo Dam

写真-3 泥谷砂防堰堤群
Photo 3 Dorodani Dabo Dams