

Infrastructural Landscape Management Measures in Mountain Areas

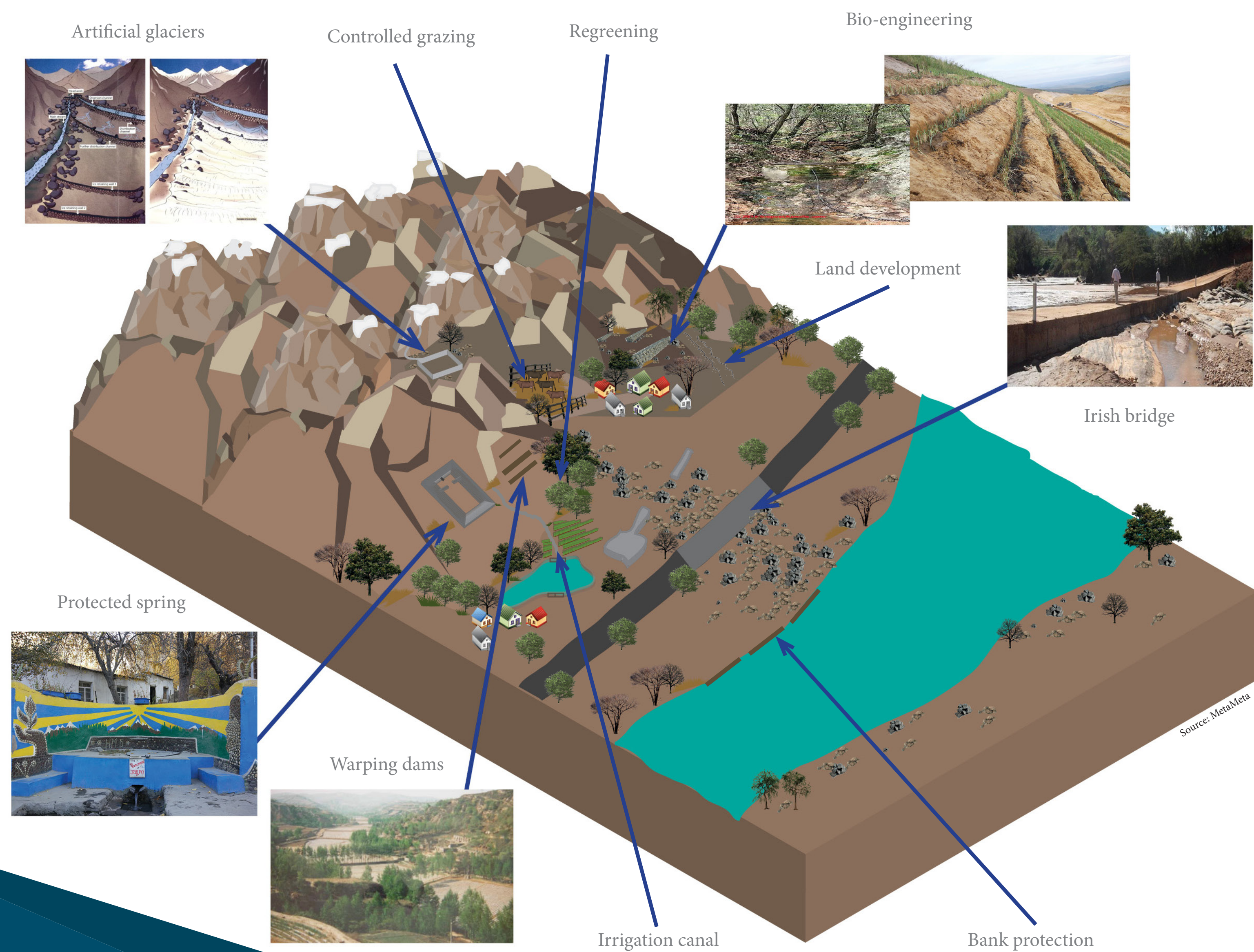


Figure: Overview of landscape management measures to be implemented in mountain areas

As climate change, it affects high mountain areas just as well as it does to any other place. In some respect, the effects are even more severe, as the fragile balance between snow/ice and meltwater is disturbed, and the high mountains are affected.

The expectation in the Pamir is that there will be more snow. However, unlike the past, much of it will be wet snow and a large proportion of the snowfall will melt. This means that there will be more runoffs that are less gentle. Thus, even with the higher precipitation, there may be less water effectively available. This requires a soundly modified approach to land and water management - considering following elements:

1

- More snow and water to be retained:

- Through artificial glaciers that melt water to colder shaded areas
- By closing the outflow of springs rather than letting them run free
- By stabilizing the rocky mountain streams with the help of non-vented road drifts (also called Irish bridges) to retain more of the subsurface flow
- By diverting meltwater to land for irrigation

2

- Slopes to be stabilized and regreened:

- Soil to be retained by warping dams and new land to develop
- Sensitive slopes to be treated with a range of bioengineering measures
- Regreening (tree planting), including planting along the roads
- Free grazing to be controlled

3

- Protection from river floods and mud or land slides:

- Roads to be relocated above flood levels
- No housing in the danger zones
- River bank protection at priority locations