

From Pine Beetle to Floods: How Communities in the Rocky Mountains of British Columbia adapt to increased Climatic Variability.

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**Abstract:** Increased climatic variability is now a major concern for most of the mountain communities in the Columbia Basin in Canada. Over the past 8 years the river basin experienced a massive outbreak of a pine beetle infestation. This was followed by wide spread forest fires and subsequent extreme rainfall events that cause landslides, floods and damage to community infrastructures. Although the climate records in this part of the world is relatively short there is considerable evidence to show that these events are well beyond the 50-100 year norms experienced in the region. The climate models project that more of these events are to occur in the near future and this has prompted the Columbia Basin Trust to initiate a major program on climate change adaptation. Over the past 5 years ten mountain communities have participated in the program and they have taken various steps to protect their communities from extreme climatic events. Protecting drinking water supplies, reducing stormwater runoff and flooding and changing forest management practices to reduce the fire risk were the main topics of concern. Many of the communities are banking on tourism for their future economic livelihood and changes in snowpack and reduced summer streamflow are also of considerable concern. As part of the adaptation program each community has prioritized the risks and come up with a different mix of adaptation measures. The presentation will highlight some of the successful measures that include water conservation measures, changes in forest management practices, source water protection initiatives, and innovative stormwater management in the communities.