



FOOD SECURITY AND HIGH MOUNTAIN GLACIERS AN ENVIRONMENTAL FOOD CRISIS



Christian Nellemann, UNEP GRID/Arendal

Ca. 200 million mountain people



**Ca. 1.3 billion people in water sheds
dependent upon glaciers**





Pre-disaster

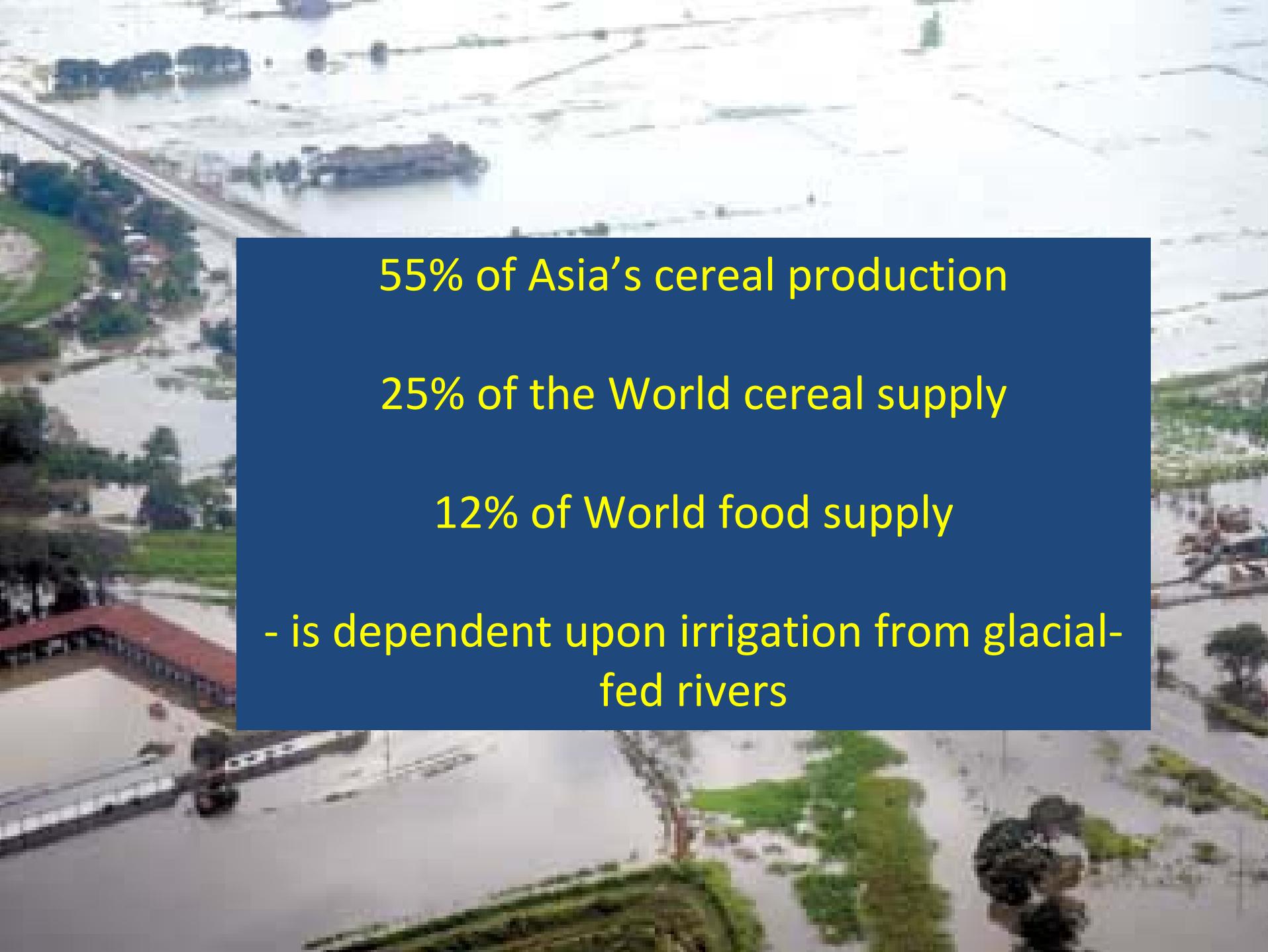


Post-disaster

Shakidor Dam burst on February 10th, 2005

Ca. 3 billion people downstream



The background image shows an aerial view of a river valley. A large river flows through the center, with several smaller tributaries joining it from the sides. The banks of the river are lined with lush green vegetation and trees. In the distance, there are some buildings and a bridge crossing the river. The overall scene is a mix of natural beauty and human-made infrastructure.

55% of Asia's cereal production

25% of the World cereal supply

12% of World food supply

- is dependent upon irrigation from glacial-fed rivers



A photograph of a agricultural field showing rows of crops, possibly rice, growing in a paddy. The plants appear to be in poor condition, with many leaves yellowed or browned, indicating stress or damage. The field is surrounded by a dense forest of green trees under a clear blue sky.

A 10-30% decline in irrigated yields in the Hindu-Kush Himalayas major glacial fed rivers is equivalent to 1.5-8% loss in global cereal production



**Ca. 6.7 billion people, rising to 9.3 billion
affected by food prices if glacial rivers
decline**

FAO food price index 1900-2008



A dramatic black and white photograph of a glacier. In the background, a bright sunburst creates a star-like pattern through thin clouds. The foreground shows the textured, rocky surface of a glacier, with deep crevasses and shadows.

Up to 25% loss of global food production by 2050

The loss of glaciers by 2050-2100 may account for one-third of this

