



Institute Statement on the Dismantlement of Punggye-ri

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North Korea's dismantling of the Punggye-ri nuclear weapons test site and reported blowing up of the tunnels is a positive confidence building measure that helps set up a summit, if the parties eventually choose to convene one. However, it is not a concrete demonstration of a North Korean commitment to denuclearization, which has to be defined as the complete, verified, irreversible nuclear dismantlement of North Korea's nuclear weapons program.

North Korea's action is better than a freeze and represents a disabling of the test site. However, like many disabling steps, North Korea could likely resume testing at the site after some weeks or months of work. Although the main mountain is unlikely to be usable, other nearby mountains could be used. And two of the portals (numbers 3 and 4, using North Korean nomenclature) were apparently intact and usable for further nuclear explosions prior to the dismantling steps conducted. Moreover, North Korea could test elsewhere.

This action does not affect North Korea's current nuclear weapons arsenal or its capability to make nuclear weapons, although lack of testing could inhibit North Korea's ability to field reliable, deliverable thermonuclear warheads.

Despite these caveats, North Korea's action should not be trivialized but viewed as an important step to reduce tensions and lay the basis for denuclearization negotiations. It is not fair to portray it as part of an effort to hide or disguise its nuclear weapons capabilities.

Three minutes of film footage taken by the Associated Press makes clear that major buildings and tunnel entrances were destroyed. The North Koreans said that there were explosions further inside each of the tunnels, but this could not be confirmed through the video. The North Koreans said that two of the tunnels were operational before the demolition, the south and west portals (or tunnels 3 and 4). The tunnels under Mt. Mantap were probably already destroyed. There was no diagnostic or other nuclear weapons testing-related equipment, such as cabling, visible in any of the video. A building by the north portal (tunnel 1) appeared to collapse into a pile of wood and debris, indicating that it too had been emptied before the event.

If denuclearization is negotiated, inspectors will need to visit the site and verify its closure and understand its role in North Korea's nuclear weapons program. In addition, as part of verifying declarations of plutonium and highly enriched uranium, any verification organization assigned to the task will likely want to collect samples at the location of the nuclear explosions. This may require drilling into the specific locations of the six tests to take radioactive samples. A recent study in *Science* [magazine](#), using a combination of seismic and synthetic aperture radar data, has better identified the location of the five explosions in Mt. Mantap, making it easier to drill back into the mountain to take radioactive samples.