
Long-term mass displacements after nuclear disasters: Are they the largest?

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Abstract

Major disasters can lead to mass displacement - one of the most important demographic consequences of such events both for sending and receiving areas. In the case of disasters with long-term environmental impact, demographic shifts may be permanent. Mass displacements after the nuclear meltdowns, such as Chernobyl in 1986 and more recently Fukushima in 2011, were significant permanent emergency evacuation - changing the demographic profiles of entire regions.

Displacement itself generates new challenges: relationships, networks and social capital need to be rebuilt within the community; and conflicts can occur within the receiving settlement. Thus, mass displacement can easily become a secondary disaster.

We would like to present the demographic impacts that resulted from the Chernobyl- and Fukushima-affected regions. The core analysis was by GIS based on detailed spatial units using census data. For a more detailed insight we also used mobile phone location data in case of Fukushima and historical population registration microdata collected by local authorities after Chernobyl. We focus on the spatial aspects of permanent resettlement as it has the significant consequences for community futures for the entire regions.

Keywords: mass displacement, population, nuclear disaster, Fukushima, Chernobyl, region

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