Crises

Demographic Causes and Consequences

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Introduction

In demography much scientific effort is invested to study the *continuous*. We have a whole range of statistical techniques to describe, analyze, and predict ongoing trends in fertility, mortality, and migration. Actually, it is the quintessence of population projection methods, life tables techniques and synthetic rates (such as the Total Fertility Rate, the Net Reproduction Rate, etc.) to assume continuity or at least a *steady* change. In reality, however, the world is not a tranquil flow of events. One might say that crises are a constituency of our existence. Sometimes they affect a whole population, sometimes a small group or an individual, in a few cases they might even endanger the existence of mankind.

This paper deals with demographic causes and consequences of *crises*. Its main objective is to review available, but scattered, information on some of the most serious population-related catastrophes. The paper also includes a typology that classifies the various events. Finally, problems related to the identification of *demographic* causes and consequences of crises are discussed. In general, the paper tries to increase awareness of the broad spectrum of traumatic events that can affect a population.

For our purpose we pragmatically define "crises" as social, economic, political, natural, or demographic events that come *unexpected* (even if predicted), *evolve rapidly* over a short period of time and are *difficult or impossible to influence*. They suddenly change the internal structure of a phenomenon or turn around its long-term trends. There are (at least) the following types of population-related crises: famines, epidemics, wars, genocides, systematic terror and suppression, massive displacement and forced migration of peoples, ecological catastrophes, and epochal crises.

1. Famines

The classical case of a population-related crisis is the famine. For thousands of years, well up to early modern societies, famines were an integral part of the human existence.[1] In traditional societies the food supply heavily depended on the *regional*

Acta Demographica 1992
G. Buttler/H.-J. Hoffmann-Nowotny/
G. Schmitt-Rink (Hrsg.)

agriculture. Trade was difficult, expensive and usually restricted to local (or regional) markets. Crop failure due to pests, livestock diseases, or bad weather were quite frequent and a succession of a few bad harvests could easily drench available stocks.

There is some discussion, if famines were the *primary* cause of population stagnation in the past – an argument that MALTHUS made prominent. Based on simulation experiments WATKINS and MENKEN have argued that the demographic effects of severe famines both in ancient Europe and Asia were quite fleeting: "90 years after the famine, the population is ... only 7 percent smaller than it would be had there been no famine".[2] There is, however, considerable disagreement. KOMLOS, for instance, provides evidence that in early-modern England population trends where greatly influenced by "localized demographic crises, which in turn were related to general agricultural conditions".[3]

Well known is the Great Irish Famine (1846-1851). Their precise demographic impact might be difficult to quantify,[4] but there can be no doubt that it caused a considerable increase of mortality and triggered a wave of emigration. Not too long ago India was notorious in its succession of serious famines. Only since the "Green Revolution" the country has acquired self-sufficiency in food.[5] While India's history of famines caused widespread human suffering, it did not stop its high population growth and it did not significantly distort its age structure (at least on a national level).

In recent history a most serious case of mass starvation occured during the "Great Leap Forward" in China between 1959 and 1962.[6] It probably generated the single largest loss of human life ever outside of war. Within a few months some 23 million (!) Chinese starved to death or were killed by famine-related diseases; another 20 to 30 million suffered severe malnutrition and where physically harmed for the rest of their life. The full magnitude of the disaster was covered up by the communist government for nearly 20 years. The famine's demographic consequences, however, where so severe, that demographers could uncover the truth some 20 years later on the basis of the 1980 census data.[7] Today there is still a clearly visible cut in the age structure of the Chinese population, which represents the birth deficit and the steep increase in infant mortality during the years of the famine. Judith BANISTER's careful reconstruction of the "Great Leap's" demographic impact shows that Crude Birth Rate and Infant Mortality Rate more than doubled (from 20 to 45 per 1000 of the population and from 130 to 284 per 1000 births, respectively). The Total Fertility Rate, which was 6.3 before the "Great Leap Forward", declined to 3.3 in 1961. However, despite these truly dramatic short-term demographic consequences, not much was changed in the long run. There was only a slight decline in population (see appendix figure 1), and the fertility and mortality quickly adjusted to pre-famine level. The Total Fertility Rate, for instance, quickly rose to 7.5 after the famine years.[8]

2. Epidemics

The "Great Plague" during 14th century Europe has become synonymous for the death toll of infectious disease. According to estimates roughly one third of the