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## **Calculating Life: Nature and Nationhood in National Gene Resources Programmes**

Finland has ratified various international treaties for the sustainable use of renewable natural resources, amongst the most important of which are the Convention on Biological Diversity (CBD) in 1994, International Undertaking on Plant Genetic Resources (IU) in 1983, Global Plan of Action (GPA) 1996 followed by the International treaty on Plant Genetic Resources for Food and Agriculture (IT) in 2001. Each emphasize the importance of national programmes in promoting the protection and sustainable use of natural resources for future generations and for breeding. Finland is also involved in a range of initiatives by the Nordic Council of Ministers to 'inventory nature', through for example the Strategy for the Conservation of Nordic Gene Resources, the Nordic Gene Bank and the Nordic Gene Bank Farm Animals (NGB, est. 1979; NGH, est.1984) programme. In future, the roles of NGB and NGH will assume a much higher profile in Finnish genetic (ex situ) resource. The Finnish Ministry of Agriculture and Forestry has begun a number of programmes for genetic conservation: Plant Gene Resources in 2003 and Animal Resources in 2004. The programmes for plant and animal resources are co-ordinated and implemented by Agrifood Research Finland (MTT).

The central question in these programmes is to decide what are the most valuable resources from a national viewpoint and what are to be conserved. The evaluation and classification processes encompass a diverse range of dimensions including the biological (genetic diversity), scientific (progress), cultural heritage (traditional identity), economic (profit) and political (conventions), and so on. Thus evaluation and classification practices constantly shift in this way between the natural and cultural considerations, or rather, the 'nature/culture divide'. Even if the inventorying of Finnish nature depends on several classificatory dimensions, it is the 'gene' that has increasingly become the central figure for conservation. The gene operates as a marker for identification, but also much larger social and cultural processes in the biologisation of identity. Whilst much has been made of the way genetics reshapes familial and individual identity, less attention has been paid to the way genetics has featured in our understandings of nationhood and nature. Programmes for inventorying nature are, on one level, measures for preserving biological resources, but are also now foundational a new 'gene-geographically' bound nationhood and powerful scientific representations of 'pure' Finnish nature/genes.

Gene banking has already raised problematic issues in the identity politics of several nations (e.g. Iceland, Estonia, Japan, France), particularly in the context of human biological samples, and articulating with key debates about racial 'purity' and the specialness (or not) of a nation's 'gene pool'. By contrast, this thesis responds to an absence in the literature by exploring how nationhood is being mediated in nonhuman genetics, and how gene banking relates to larger political processes in the national and transnational politics of nature and nationhood. This PhD will make a unique contribution to an under-researched, though compelling, area of social science enquiry into the new genetics.