

Environmental Management in event planning – a Life Cycle approach, the Roskilde Festival case

A. Bonou¹

¹DTU Environment, Technical University of Denmark
s081881@student.dtu.dk

The goal of this LCA-based study was to give a first estimate of the direct and indirect environmental impacts related to the activities taking place on the site of the Festival during its 8 day length as a first input into prioritizing policies and mitigation actions for inclusion in an eventual Environmental Management Plan for the Festival.

The functional unit is defined as '***The Roskilde Festival providing services to 1 adult person during the 8 days of its official duration***'. In the system boundaries' is included the accommodation of festival goers, the consumption of food and water, the consumption of fuel associated with the activities taking place during the festival and the management and treatment of all the festival related waste. The power production and the transportation of festival goers and machinery were also investigated. Each subsystem was individually planned and assessed for the whole festival and the relative contribution of its different components (products and processes) was indicated. The results were aggregated to assess the impact of the functional unit. The assessment was carried out according to the EDIP method. The reference system was the 2008 Roskilde Festival.

Site specific data were provided by the Roskilde Festival environmental coordinators. Data gaps for the 2008 festival were either filled with 2007 information or with the results of two physical surveys (waste sampling to estimate the waste composition and registration of the abandoned gear items after the end of the festival) and one questionnaire survey among the festival goers (focused on behavioural intentions regarding food consumption and waste) conducted during the 2009 Roskilde Festival. For the assessments three LCA software tools were used, and scientific LCI databases provided the inventories of the environmental exchanges that characterise the modelled products and processes. GaBi (a tool for building life cycle balances) was used for modelling the 'manufacturing' and 'use' stage of all the products within the system boundaries, except for food. SimaPro is the LCA software used for modelling the food products consumed during the Roskilde Festival. EASEWASTE is the software used for the evaluation of the environmental impacts of municipal solid waste systems.

The interpretation of the results reveals that the main contributors to all the impact categories are the transportation (mostly due to the cars, and the airplanes) and the food consumption mostly due to the meat (at least 10 times higher impact than the other products in all the impact categories). The impact of the camping gear manufacturing is almost counterbalanced by the waste management impact. The water and power consumed during the festival have a comparatively insignificant environmental effect. The results of this first scoping assessment give the interesting conclusion that action by the Roskilde Festival organisers to reduce the impacts of the festival is best focussed on influencing the behaviour of festival goers rather than investing in technical solutions.