A review of existing life cycle assessments (LCAs) on paper and cardboard waste has been undertaken. The objectives of the review were threefold. Firstly, to see whether a consistent message comes out of published LCA literature on optimum disposal or recycling solutions for this waste type. Such message has implications for current policy formulation on material recycling and disposal in the EU. Secondly, to identify key methodological issues of paper waste management LCAs, and enlighten the influence of such issues on the conclusions of the LCA studies. Thirdly, in light of the analysis made, to discuss whether it is at all valid to use the LCA methodology in its current development state to guide policy decisions on paper waste. A total of nine LCA studies containing altogether 73 scenarios were selected from a thorough, international literature search. The selected studies are LCAs including comparisons of different management options for waste paper. Despite claims of inconsistency, the LCAs reviewed illustrate the environmental benefits in recycling over incineration or landfill options, for paper and cardboard waste. This broad consensus was found despite differences in geographic location and definitions of the paper recycling/disposal systems studied. A systematic exploration of the LCA studies showed, however, important methodological pitfalls and sources of error, mainly concerning differences in the definition of the system boundaries. Fifteen key assumptions were identified that cover the three paper cycle system areas: raw materials and forestry, paper production, and disposal/recovery. It was found that the outcome of the individual LCA studies largely depended on the choices made in some of these assumptions, most specifically the ones concerning energy use and generation, and forestry.