

## **4. Sampling and sampling preparation methodology**

The focus of the global programme to support the effectiveness evaluation of the Stockholm Convention is on environmental background concentrations in media with a high potential for comparability. The COP has decided that the air monitoring and human exposure through breast milk or blood serum will be used as core media for the first evaluation. For future evaluations, the COP has also decided to endeavour to supplement the core data with data from other media such as biota, water, soil, and sediments (SC-2/13). The present guidance is aimed at the core media for the first assessment and the document will be revised for future evaluations. However much of the present document would apply also to the indicated supplemental media for future assessments, but specific considerations would be needed (e.g. for sampling).

Some general considerations that pertain to all the GMP matrices are discussed below.

All sampling should follow established methodological guidelines, which should be agreed upon before the start of any programme activity in a region. If possible, samples in all programmes should be numbered in the same way. Sampling should always include field or trip blanks and, to the extent possible, duplicate samples for the purpose of sample sharing and the analysis of variance.

The sampling window for the first initial baseline window will be 2003, plus or minus five years. Sample frequency and timing should, as much as possible, be harmonized between matrices. As a rule samples should be taken at least annually and during the same period every year. For some matrices where seasonal influences would be less important (e.g. human breast milk), the sampling frequency and duration might be different. For the statistical analysis of the levels it would be preferable to take many samples frequently from one location rather than to take a few samples from many different locations. Further guidance on number of samples is given in Chapter 3.

Sample banking should be considered for all samples. Sample banking is an expensive and resource intensive activity that needs to be sustainable in a long time perspective. However, if properly managed it may yield important insights into exposures over time (for new POPs) and may also be used for retrospective studies. Options should be developed and analyzed for inclusion in the Implementation Plan for the GMP.