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QUALITY CONTROL IN DIFFUSION SAMPLING NETWORKS

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With the help of diffusive samplers spatial distribution of air pollutants can be assessed and these samplers are therefore a sound completion to continuous monitors. Diffusive sampler networks can be run easily over longer time periods and are an effective tool in air quality management. In the framework of the Swiss Project “Airo Puro” in 6 Central American countries, the diffusive sampling technique was established in 6 different organisations. The quality of measurements was maintained in two ways: a) human aspect: continuous training of personal via seminars and external audits and b) the technical side via analysing standards and spiked samplers from a reference laboratory. A pragmatic evaluation system was established in order to measure the performance of the institutions. As key indicators were chosen: documentation in the laboratories, maintenance of equipment, control charts of analytical performance, coincidence with reference lab. etc. It turned out, that the external audits were hardly appreciated at the beginning, but were accepted as extremely helpful at the end. The information flux between the laboratories was improved with the help of these audits, followed by common seminars. The interlaboratory exercise gave confidence into the results, especially before publishing in the mass media.