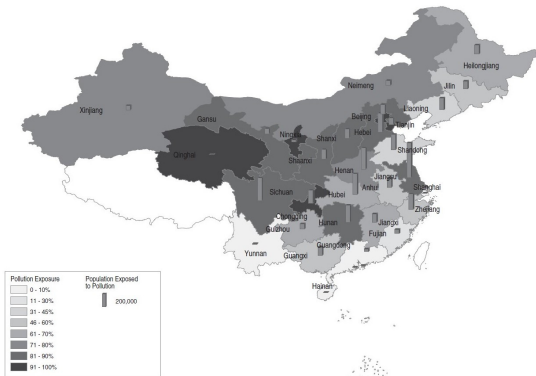


Application: Heavy Metals in Industrial Waste Water.

Today heavy metals in waste water are seen as one of the biggest problems of pollution. The attention of local governments to decrease the concentration of heavy metals in waste water is continuously increasing.

THE PROBLEM:

The online measurement of Industrial Waste Water introduces two technical problems to be solved. First, the complex waste water matrix will interfere with any accurate measurement. Second, the fast change of the composition of the waste water needs a set of individual measurement tactics.



Source: Cost of Pollution in China: Economic Estimates of Physical Damages

YOUR TASK:

You have to manage increasing costs for waste waters treatment. Environmental costs (costs for pollution) have increased dramatically over the last 10 years and will do so in the upcoming years.

You have to manage expectations of internal sources and external local governments. Local governments have the power to threaten companies and its bosses. Internally waste water treatment is not always seen as a agent of productivity and so costs for quality insurance of waste water treatment are always in question.

OUR TASK:

We have to support you in building up a trusted reference for emission control. Any management and control initiative starts with measurements. This sizes up the problem, displays the risk and helps to understand activities to lower emission.

While for other application a reagent set is available ready to use the task in industrial waste water is more complex. Therefore SEIBOLD has created a tactical six-step approach to this problem:

- Feasibility Study. Technologies, Costs per Measurement.
- Laboratory work to develop measurement procedure.
- Test on site.
- Gap Study: Feasibility Study to Test results.
- Optimisation and Installation.
- Maintenance and consumables contract.



Heavy Metals Measurement in Wuchang/China

Parameters:

- Arsenic As
- Cadmium Cd
- Cobalt Co
- Chromium Cr VI
- Copper Cu
- Iron Fe²⁺, Fe³⁺, total Fe
- Manganese Mn
- Nickel Ni
- Zink Zn