Cooperation is the key to sustainable industry

A recent analysis discusses how detailed study of industrial processes and policy can make the usage, recovery and recycling of natural resources more sustainable. It summarises a range of studies on sustainable industrial practice, highlighting where policy makers can support sustainable procedures.

The goals of legislative and non-governmental bodies should be complementary and avoid duplication. Measures are needed to ensure that:

(i) research findings from related programmes are available for all relevant parties, and
(ii) industry continues to develop new technologies essential to improving sustainability.

Tools are also required to measure the effectiveness and importance of policies and technological advances.

Sustainable management begins with individual industries, minimising the use and waste of raw materials and maximising reuse and recycling. Industries should be encouraged to interact with each other; the waste stream of one industry provides a potential raw material for another. For example, composted sewage sludge can be used as fertiliser, and metals and salt can be extracted from the concentrated brine discharged by desalination plants.

The authors discuss scenario analysis - using software tools to compare how different business plans might respond under different management methods to predict the environmental impact of proposed sustainability measures. Group scenario analyses can identify where co-location of several industries may substantially reduce resource use and waste, guiding the design of Eco-Industrial Parks.

Similarly, industries and regulators alike must recognise where unified efforts are required to establish coherent policy and standards. An example might be agreeing on a technical specification for the properties and reuse of recycled concrete across the construction industry. Multiple industries may have to negotiate a convergence of their interests in order to maximise their financial and material sustainability, while policies recognising technological or practical limits could accommodate and maximise sustainable behaviour.


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