

Life Cycle Management of Natural Resources / The case of Aluminum

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The natural resources in their use for our daily life constitute the major ingredient for our civilization as we know it today. However, natural resources are not infinite and in many countries are not at all abundant. It is imperative today as the world is changing, the needs for natural resources increase, and the environment is polluted by our industrial activities, to manage properly the use of our resources in order to keep the high standards of living for the developed world and give a chance to the developing world to attain higher standards of living. Life cycle management of each resource is the only way to reach to attain this goal. It is important, and today it has become necessary, to take into consideration the life cycle of each material so that the proper processes are designed to reduce its environmental impact and to achieve a high level of recycling. The case of aluminium is a perfect example. Even though aluminium is one of the most polluting material produced due to the high amount of natural resources needed for processing and the high quantities of electricity used, its high recyclability could minimize the environmental impact from production and will also lead to lowering the use of natural resources. A life Cycle assessment has been performed for the aluminium production in Greece and the impact of scenarios at different recycling levels calculated.