Tools for Sustainability Evaluation

Social Compatibility Analysis *(SCA)*

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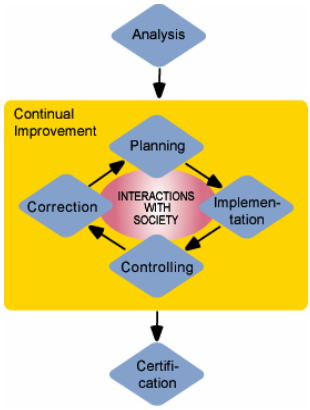
Why?

An assessment of social aspects and the inclusion of this dimension in every decision making process is necessary. Even *decisions concerning ecological effects have external social consequences*.

There are already tested and approved methods and instruments for evaluating the ecological and economic dimensions of projects, products and organisations in terms of their *sustainability*. However, such methods and instruments are conspicuously lacking in the range of the *social dimension*.

In order to include social compatibility in planning processes, a tool similar to that of the environmental impact assessment has been developed:
the Social Compatibility Analysis *(SCA)*.



What?

The *SCA* defines objective criteria according to which social compatibility is evaluated for:

- projects
- products
- organisations

Application of the *SCA*-tool have given evidence that this is a particularly valuable tool when:

- the social dimension is concerned
- the clarification of differing opinions is needed
- sets of solutions are to be negotiated

Since A- and ?-components are highly relevant to a problem, they are the main focus for improvement.

Example: A_{45} ➔ The population directly affected by the incineration plant has no legal means of being involved in the decision making process.

IP-WASTE PRIORITY PROGRAMME ENVIRONMENT

? = *SC threat*
A = *SC minimal*
B = *SC limited*
C = *SC evident*
+ = *SC improved*
X = *not relevant*

	Need & Basic Decision	Planning Phase: Location Choice	Planning Phase: Technology Choice	Planning Phase: Permit Application Process	Construction Phase: Location Infrastructure	Construction Phase: Building	Construction Phase: Technical Equipment	Operational Phase (20 years): Operational Processes	Material flows (per year) Input: Solid Waste. 106'500t	Input: Sewage Sludge 8'500t	Input: Water	Input: Natural Gas 3'000t	Output: Metal. 4'500t	Output: Glass 7'500t	Output: Gran. Sm. Res. 18'000t	Output: Waste Wat. Tr. Res 450t	Output: Water	Output: Air Emissions	Output: Electricity 66'000MWh	Output: Steam Heat 86'000MWh	Deconstruction Phase: Building	Deconstruction Phase: Technical Equipment	Deconstruction Phase: Transports	Deconstruction Phase: Location
Convenience with social order	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Occupation	C	+1			?2			+3	C	C	C	C	C	C	C	C	C	C	C	C	+4			X
Education & Training	X	X	X	X	X	X	X	+5	C	C	C	C	C	C	C	C	C	C	C	C	X	X	X	X
Income Distribution	X	B6			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Living/working conditions in Developing Regions	X	X	X	X	X	C	C	X	C	C	C	?7	C	C	C	C	C	C	C	C	X	X	X	X
Discrimination	C	C	C	C	C	C	C	?8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
External and Social Costs	B9	?10	?11	?12	?13			?14	B15	X	B16	X	X	B17	X	X	X	X	?18		?19			
Health Hazards	X	X	X	X	?20			B21	B22	C	C	C	C	B23	C	B24	C	C	C	C	C	C		
Nuisance	X	X	X	X	B25			B26	B27	C	C	C	C	B28	C	C	C	C	B29					
Information / Communication	?30	A31	A32	B33	B34			?35	B36				B37								X	X	X	X
Transparency	C	B38	B39	B40	C	C	C	?41	B42				B43								B44			
Participation	A45	A46	A47	B48	B49			A50	C	C	C	C	C	C	C	C	C	C	C	C	B51			
Impact on inhabited areas	C	A52	X	X	B53			B54	+55	+56	C	C	C	C	C	C	C	C	C	C	X	X	X	X
Riscs for the Population	C	X	X	X	B57	C	C	B58	C	C	C	C	C	C	C	C	C	C	C	C	X	X	X	X
Restriction of decision parameters	B59	B60			C	C	C	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Outlook

➔ *SCA* can fulfil the demand for awareness and consideration of a project's social implications

➔ Sustainability evaluation by combining the *SCA* results with ecological and economic evaluation tools

➔ IT-based *SCA*-tool facilitates the consideration of social aspects by producing comparable outputs depending on the users' assessments

➔ Introduction of the obtained data on social impacts into geographical information systems

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