

# Summary about the „Fictional Forest“

When starting with the project it was decided to choose a fictional example because it could be designed as being very interesting. Regarding the group is about forests it was an easy choice to design a forest placed in germany with a size of 50 hectares. After an standard use mode for german forests with sustainable harvest the mode was slightly changed in the second half of the course. It was composed, that 10 hectars would be taken out of normal usage creating a part ceded to nature. In the following the surpluses were defined through benefit transfer values. The values of carbon dioxide sequestration was expressed through carbon dioxide tradables, surplus of increased groundwater was calculated and transfer payments for the non-usage and natural preservation were taken into account.

To express the formerly said in numbers the following datatable has been created.

The discount rate in the following will be 10% as this is a commonly used value from literature.

Taking this into account the data setup looks like the following:

Year #	1	2	3	4	5
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## With Project

Benefit	10750	4250	4750	5250	5750
Costs	0	0	0	0	0
Net benefit	10750	4250	4750	5250	5750

## Without Project

Benefit	8000	8000	8000	8000	8000
Costs	2400	2400	2400	2400	2400
Net benefit	5600	5600	5600	5600	5600

Incremental net benefit	5150	-1350	-850	-350	150
Present value of incremental net benefit	5150	-1227	-702	-263	102
Economic net present value	5150 - 1227 - 702 - 263 + 102 =				3060

As the economic net present value is  $> 0$  in this case the project is worth undertaking.

This would lead to choose the project as the preferable option.

Considering social consequences, the project will only have a positive imlact. Life quality will increase due to enhanced recreation in a forest being more nature-like.

What should not be forgotten in the end anyways is that not all forest can be substituted with such a scheme as wood is a material with very good climate score compared to its possible substitutes.

Contributed by Gernot Gauger

As i can't confirm to be able to join next weeks session yet i sadly disqualify for the presentation.

Best regards