

Framework on Estimating Expected Benefits through Facilitating the Nagoya Protocol on Access and Benefit-Sharing:

Interim Report – An Attempt of Estimation of Non-Monetary Benefits

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4

Clarifying Benefits

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4

Clarifying Benefits

Why further clarification?



Estimations above are suggestive.

However….



- Benefits above are annual benefits of one activity.
- Effects of the activities sustain for several years.
- A number of activities are simultaneously possible.



It is worth clarifying the benefits by different scenarios.



Scenarios	Conditions for Clarifying Benefits
Scenario A	Non-monetary benefits for a low income country such as country A
Scenario B	Non-monetary benefits for a low income country such as country B
Scenario C	Non-monetary benefits as a merger of those for both countries A and B
Scenario D	Non-monetary benefits if the number of ABS related activities increase by the introduction of the Nagoya Protocol
Scenario E	Non-monetary benefits for a user country by decrease in transaction costs

Here, a brief lecture on net present value (NPV)...



Today's \$100 is not equal to \$100 10 years later.

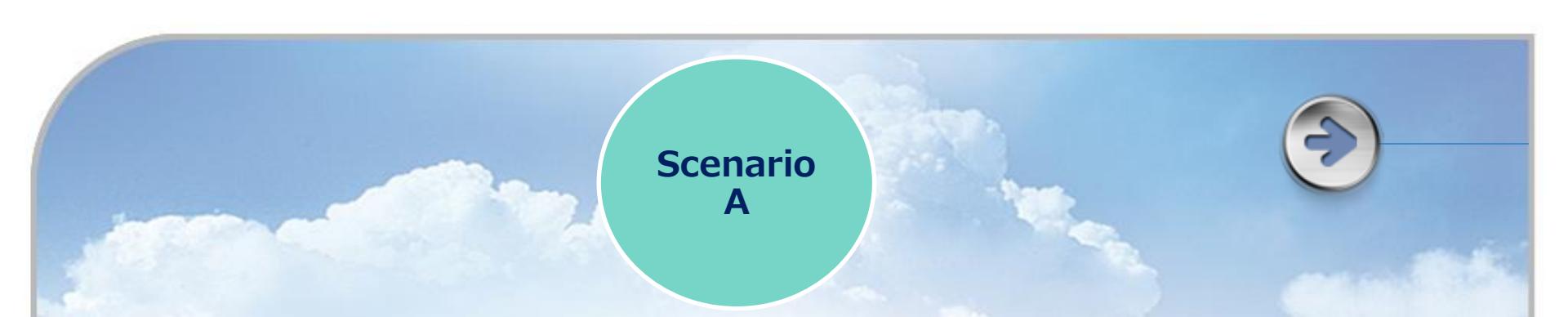
\$100 10 years later must be discounted from the viewpoint of today's value.

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Net Present Value

NPV						
Benefit = Revenue = \$100						
Discount rate = 10% = 0.1						
Time	0	1	2	...	10	
Benefit	100	100	100		100	
Discount rate	0.1	0.1	0.1		0.1	
Discounting	$100/(1+0.1)^0$	$100/(1+0.1)^1$	$100/(1+0.1)^2$		$100/(1+0.1)^{10}$	
Net Present Value (NPV)	100.00	90.91	82.64		38.55	
Net Present Value (NPV)	312.11					
Just a total						

Hence, the total benefits of activities for 10 years
is NOT $100 \times 10 = 1,000$
but is = 312.



Scenario A



Scenario A

Non-monetary benefits for a low income country such as country A

- This should be emphasised that **benefits can be generated for years.**
- If simply suppose that benefits continues to be generated **for 10 years** (this is absolutely assumption but does not change the essence of the analysis, even if it continues for 5 year or 20 years) ,
- Net present value (**NPV**) of the benefits by one ABS related activity in 10 years with discount rate 10% is:

NPV in 10 years: **US\$2,321,467**
Annual benefits: **US\$377,808**



Scenario B



Scenario B

Non-monetary benefits for a low income country such as country B

- The same scenario for country B.
- This should be emphasised that **benefits can be generated for years**.
- If simply suppose that benefits continues to be generated **for 10 years** (this is absolutely assumption but does not change the essence of the analysis, even if it continues for 5 year or 20 years).
- Net present value (**NPV**) of the benefits by one ABS related activity in 10 years with discount rate 10% is:

NPV in 10 years: US\$ 1,447,365

Annual benefits: US\$ 235,552



Scenario C

Scenario C

Non-monetary benefits as a merger of those for both countries A and B

- It is possible to carry out two activities simultaneously in one country,
- “Mushrooms activity” and “medicinal plants activity” as two cases are carried out simultaneously in ONE country
- The benefits for the country can simply be re-written as shown below.

NPV in 10 years: US\$3,768,832
Annual benefits: US\$613,360



Scenario D

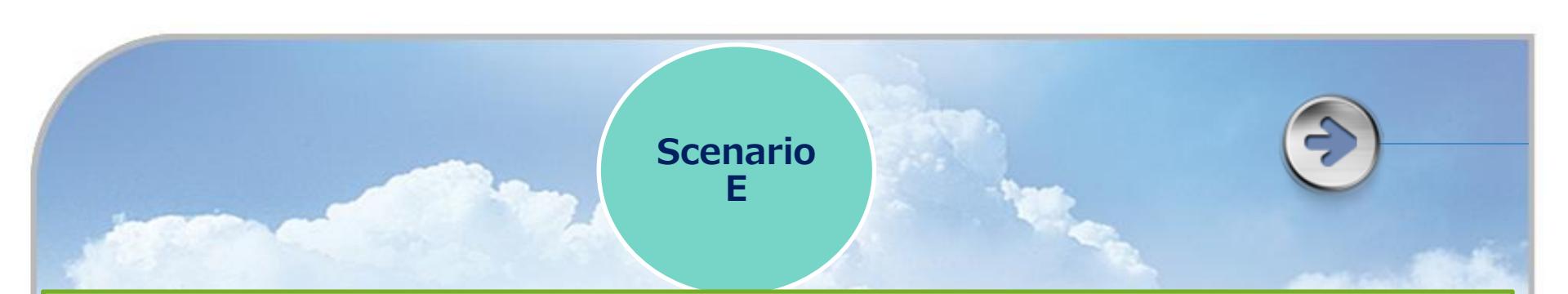


Scenario D

Non-monetary benefits if the number of ABS related activities increase by the introduction of the Nagoya Protocol

- The number of ABS activities will NOT automatically increase by the introduction of the Nagoya Protocol.
- On the other hand, well-organised laws and/or institutions responded to the protocol are able to make processes of ABS more efficient.
- When the latter, the number of ABS is expected to increase.
- Simply suppose that the number of the cases will increase to 100. For the scenario on, the figure that benefits of scenario C is multiplied by 50.

NPV in 10 years: **US\$188,441,584**
Annual benefits: **US\$30,668,000**



Scenario E



Scenario E

Non-monetary benefits for user country by decrease in transaction costs

- A different view. Transaction cost(s) when ABS.
- Case A; A transaction cost; A business trip for ABS negotiation; US\$4,000 and 12 times in 4 years.
- US\$50,000 was approximately needed for negotiation.
- Well-organised laws/institutions are able to make processes of ABS more efficient; Transaction costs decrease.

- There is no criterion at all but if simply it is supposed that the times of negotiation halved.

Benefit/Transaction cost saved:

US\$25,000

※ This point is planned to be simulated by further research.

Summary of Benefits by Scenarios



Scenarios	Conditions for Calculating Benefits	NPV in 10 years in US\$	Annual Benefits in US\$
Scenario A	Non-monetary benefits for low income country such as country A	2,321,467	377,808
Scenario B	Non-monetary benefits for low income country such as country B	1,447,365	235,552
Scenario C	Non-monetary benefits as a merger of those for both countries A and B	3,768,832	613,360
Scenario D	Non-monetary benefits if the number of ABS related activities increase by the introduction of the Nagoya Protocol	188,441,584	30,668,000
Scenario E	Non-monetary benefits for user country by decrease in transaction costs	US\$25,000*	-

* This figure is not NPV.

Before finishing the presentations…



Further Research



- Design of a hypothetical case and simulation of country C
- Consideration of effects of exports
- Effects of Transaction costs saved on ripple effect
- Analysis on the relationship between ABS related activities and biodiversity conservation

Presentations from us stop here.
Questions and comments are welcome.

Thank You !

