



Environment and Climate
Regional Accession Network **ECRAN**

Sub-Regional Workshop on Pilot Appropriate Assessment of the Tikvesh Pilot Site II

Skopje, former Yugoslav Republic of Macedonia

October 13 - 14, 2015



This Project is funded by the European Union



A project implemented by Human Dynamics Consortium

Main assessment („proper AA“)

Main assessment vs. screening

Screening: a procedure to decide *on the need of main assessment*

Main assessment vs. screening

Screening question:

Is there any likelihood of impact (on any N2K site)?

Answer 1: No, any impact is excluded → project can go on

Answer 2: Who knows? Impact likelihood cannot be excluded → go for MA!

Attention: impact can also be *positive*!

If dilemma between positive & negative → go for main assessment, too

Main assessment

Main assessment question:

Is the project likely to have *adverse impact on site integrity*?

How can this be proven?

Site integrity

Definition: site integrity OK if all ecological functions and site structure needed for maintenance of target features are present and well-functioning

How can we recognize impact on site integrity?

We need indicator(s): ???

Site integrity

Definition: site integrity OK if all ecological functions and site structure needed for maintenance of target features are present and well-functioning

How can we recognize impact on site integrity?

We need indicator(s): these are target features of the site

Site integrity

Assumption: normal situation – no extra impacts on target features

Project is coming → target features impacted

Insignificant impacts on target features:
ecosystem resilience “heals” their
consequences

Site integrity

Ecological resilience:

„The capacity of a system to absorb disturbance and reorganise while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks“ (Walker et al. 2004).

Severe (=significant) impact:
resilience cannot “heal” them

Site integrity

→ target features suffer, they are permanently affected

= either structure or ecological functions of the site are damaged →
site integrity is adversely affected

Site integrity

in other terms:

even if single target feature significantly adversely impacted → site integrity adversely impacted

indicator of adverse impact on site integrity: *at least one target feature significantly adversely affected*

Back to main assessment:

Main assessment = scrutiny of the likely impacts of the project on site target features, one by one

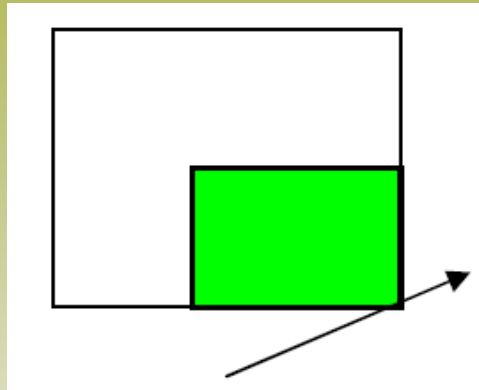
But...

...Directive does not speak about “target features”?

It reads “conservation objectives”...

Meaning?

Conservation objectives and AA



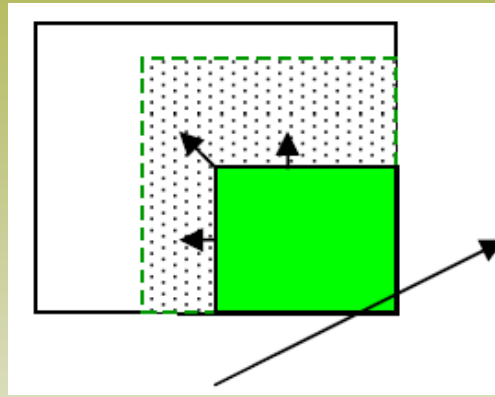
Site A, habitat XY

Conservation objective: just maintenance (Art. 6(2))

AA: new road destroying 0.01 % of the habitat XY

Conclusion: impact not significant, road can go on

Conservation objectives and AA



Site B, habitat XY

Conservation objective: increase by 75 % by 2019

AA: new road **destroying** 0.01 % of today 's habitat XY which is **expected to expand** = conservation objective jeopardized (**decrease** instead of increase)

Conclusion: impact significant, **road must stop**

Main assessment: basic rules

1. Impacts assessed separately for:

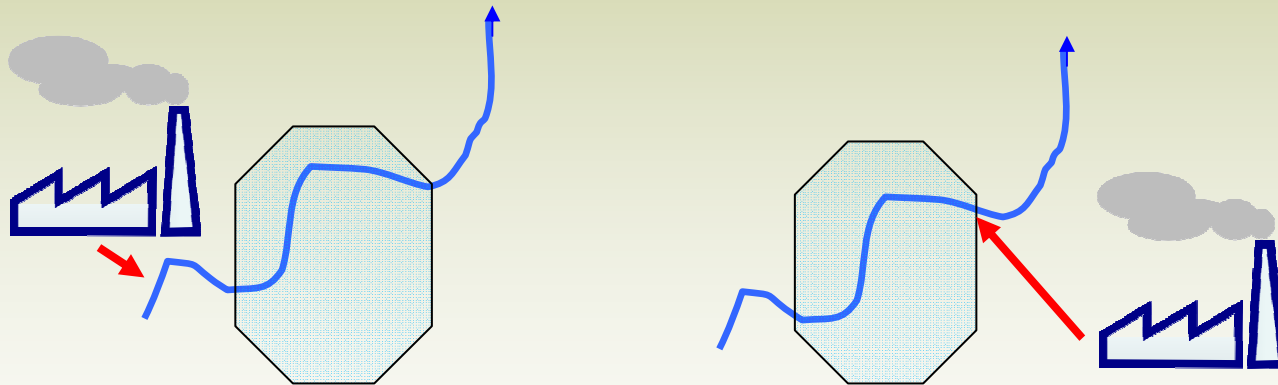
- preparation
- implementation (construction)
- operation
- dismantling

Main assessment: basic rules

2. We deal with *likelihood* only

Main assessment: basic rules

3. Impacts are important, *not the project location*



Main assessment: basic rules

4. Impacts can be:

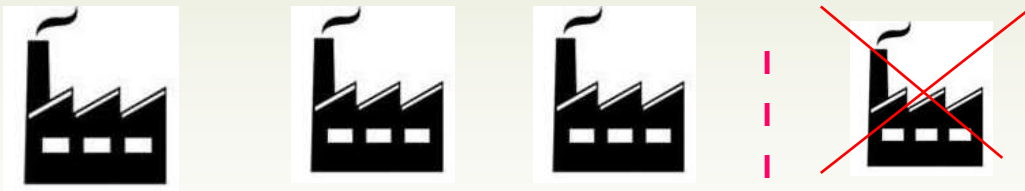
- direct
- indirect



Main assessment: basic rules

5. All known cumulative impacts taken into account

“First come first serve” rule applies:



Main assessment: basic rules

5. All known cumulative impacts taken into account

Cumulative \neq the same:

Our project: In-combination effect from:



Main assessment: basic rules

5. All known cumulative impacts taken into account

- pre-loads
- transboundary impacts

Prerequisite for MA: Recent data on TFs

Example: habitats – degree of conservation:

Scale A – B – C – D

= relative surface compared to the whole country

However, AA needs absolute (numerical) data
(ha of habitats, No. of individuals)

Such data are not in SDF

They must be gathered in the field!

Prerequisite for MA: Recent data on TFs

Who is to gather data?

Investor

Why?

Principle “polluter pays” applies

Prerequisite for MA: Recent data on TFs

Field data gathering

3 stages (=at least 3 field visits)

- a) screening (familiarization with site, comparison with published data)
- b) targeted data collecting (season-dependent, repeated if needed)
- c) verification of assumptions, check of mitigation measures

Prerequisite for MA: Recent data on TFs

Field data gathering

- photodocumentation
- record of duration
- record of persons in the field

Prerequisite for MA: Recent data on TFs

Field data gathering

only exceptionally field data gathering not needed

- data gathering = intrinsic part of each assessment
- data gathering = intrinsic part of project budget!

Prerequisite for MA: Recent data on TFs

Which data are needed?

Example: 50 km of river regulation (gravel dredging, a few new embankments done by stone)



Species composition is known

What kind of field research is needed?

Prerequisite for MA: Recent data on TFs

a) inventory (fish occurrence)?

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- b) transects every 5 km?

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Prerequisite for MA: Recent data on TFs

- a) inventory (fish occurrence)?
- b) transects every 5 km?
- c) research on breeding sites of fish?
- d) estimate of breeding – resting sites (river banks, shallow sites with gravel; for burying fish – fine sediment places
→ if feasible, check during the breeding season

Prerequisite for MA: Recent data on TFs

Duration of field data gathering

- always *at least* one vegetation season
- difference between AA starting in April & September

Prerequisite for MA: Recent data on TFs

Is field data gathering enough?

Prerequisite for MA: Recent data on TFs

Is field data gathering enough?

No!

Consult:

- national specialists: they know wider circumstances
- regional/local experts: they know how it works in the site
- proponent:
 - sometimes small change can make project acceptable
 - assessor \neq designer: not every theory is feasible

Prerequisite for MA: Recent data on TFs

...SDF revisited

...despite all this: without good data for N2K sites (=well filled-in SDFs), no quality AA is possible

Therefore, the ground is **quality Natura 2000 network** (not “paperparks”)

Back to the main assessment...

Course of actions:

- A. Data on project
(AA. Data on in-combination projects)
- B. Setting of project effect area (PEA)
- C. Overlapping the PEA with map of N2K
(CC. in-combination effects!)
- D. Check of potentially affected TFs
- E. Selection of affected TFs
- F. Assessment of impact significance
- G. Conclusion on impact significance
- H. Conclusion on impact on site integrity

A. Data on project

“inputs”:

- land take
- water consumption
- other raw materials
- associated infrastructure, etc.

A. Data on project

“outputs”:

- emissions into the air
- waste water, warm/could water discharge
- hydrological changes
- waste
- radiation (ionized)
- noise
- vibrations
- light, etc.

AA. Data on in-combination projects

B. Setting of project effect area (PEA)

Each kind of project effect may have different impact area

Typical example: water pollution vs. noise

PEA: sum of all effect areas of the given project

B. Setting of project effect area (PEA)

Therefore, it is absolutely not acceptable to artificially set “scope” of project impacts!

(“A strip 1000 m on both sides of the river”)

Especially hydrological impacts – very long distances (karstic regions!)

C. overlapping the PEA with map of N2K

All N2K sites/their parts in overlap with PEA

CC. In-combination effects!

Project may be outside of *any* N2K site → other projects may harm in-combination

D. Check of potentially affected TFs

Potentially affected site \neq all TFs affected

e.g. water project vs. terrestrial TFs

Mostly: some TFs affected, some not

Often: only *part of the site affected*

→ field examination of presence of TFs *is a must!*

E. Selection of affected TFs

Based on all this, TFs which may be affected should be selected

- selection for each N2K site separately
- assessment of impact separately, too

F. Assessment of impact significance

The most important part of AA

What is “significant impact”?

Many definitions, many approaches...

F. Assessment of impact significance

E.g.:

- permanent deterioration or destruction of TFs
- reduction of area
- reduction of population size & distribution pattern

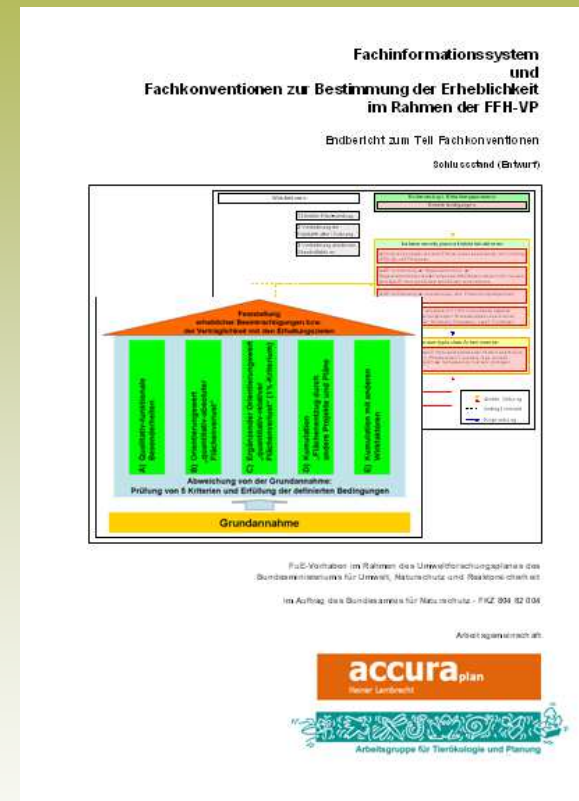
F. Assessment of impact significance

Magical “1 % threshold”

Origin: misinterpretation
of German methodology
developed by Lambrecht
et al. 2007

http://www.bfn.de/0306_ffhvp.html

What is clear: $> 1\%$ is always significant
But what if $< 1\%$?



F. Assessment of impact significance

German standards: highly sophisticated methodology taking account of

- site size
- overall “supply” of given TF in the country
- rarity of given TF in the country
- many other aspects

Advantage: it requires to quantify/record all the impacts even all non-significant impacts recorded for the site in the future, in-combination assessment is easy

F. Assessment of impact significance

Case-by-case approach necessary
questions to be asked:

- permanent loss?
- restoration possibility (on site or anywhere else)?
- principal impact on site structure and/or functions?
- large sites: impact significance on given sub-locality, not the whole site

F. Assessment of impact significance

One precedent: CJEU Case C-258/11 (*Peter Sweetman and Others*)

Case: Galway bypass destroying 1.47 hectares out of 270 ha of habitat type 8240 *
Limestone pavements

Conclusion of the Court: any loss of priority habitat type = significant impact

G. Conclusion on impact significance

For *each TF*: impact is significant vs. impact is non-significant

H. Conclusion on impact on site integrity

Pretty formal step:

if there is significant adverse impact on even single TF → there is adverse impact on site integrity

H. Conclusion on impact on site integrity

Obligatory consequence for the procedure:

Project has to be stopped (=must not be authorized)

Unless...

H. Conclusion on impact on site integrity

Unless *mitigation measures* are:

- developed
- assessed as to the project impact
- made binding

which is to be dealt with later today...