

iMONITRAF! Scenarios 2020

Evaluation by DPSIR Indicators

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Alpine Transit Traffic – Policy Scenarios 2020

Three Policy Scenarios Compared to Business as Usual:

- ▲ Best available technology
- 🔄 Alpine Emissions Trading System
- 🌍 Alpine Crossing Exchange

iMONITRAF! Scenarios 2020

Scenario	2010	BAU	BAT	AETS	ACE
HDV	100%	127%	127%	97%	86%
PC	100%	112%	112%	112%	112%
Freight Trains	100%	125%	125%	157%	189%
Technology	Euro VI/6				

DPSIR Indicators

Driver	Number of HGV
Pressures	NO _x + PM10 emissions of HGV, CO ₂ emissions HGV
State	NO ₂ , PM10 concentration
Impact	Inhabitants exposed to high noise levels
Response	Average of all indicators for all regions

Evaluation Scheme

Scen.	Corridors							
	Regions							
indicators					target			
					(almost) reached			
					missed			
					far off			

BAU Business as Usual

BAU	FREJUS		MONT BLANC		GOTTHARD		BRENNER		TARVISIO
	Pie	RA	RA	VdA	CCH	TI	TYR	STY	FVG
Driver	43%	43%	25%	25%	128%	128%	42%	42%	38%
Pressure 1	43%	43%	25%	25%	128%	128%	42%	42%	38%
Pressure 2	67%	53%	60%	74%	55%	55%	76%	64%	26%
State	0%	50%	50%	0%	0%	75%	50%	25%	0%
Impact	1%	8%	19%	19%	-5%	-9%	13%	11%	10%
(persons)	40	500	480	340	-950	-2'520	4'320	5'200	100
Response	42%	42%	42%	42%	42%	42%	42%	42%	42%

BAT Best Available Technology

BAT	FREJUS		MONT BLANC		GOTTHARD		BRENNER		TARVISIO
	Pie	RA	RA	VdA	CCH	TI	TYR	STY	FVG
Driver	43%	43%	25%	25%	128%	128%	42%	42%	38%
Pressure 1	6%	6%	-7%	-7%	69%	69%	5%	5%	3%
Pressure 2	56%	43%	49%	62%	45%	45%	65%	54%	17%
State	0%	0%	0%	0%	0%	75%	25%	25%	0%
Impact	1%	8%	19%	19%	-5%	-9%	13%	11%	10%
(persons)	40	500	480	340	-950	-2'520	4'320	5'200	100
Response	29%	29%	29%	29%	29%	29%	29%	29%	29%

AETS Alpine Em. Trading System

AETS	FREJUS		MONT BLANC		GOTTHARD		BRENNER		TARVISIO
	Pie	RA	RA	VdA	CCH	TI	TYR	STY	FVG
Driver	18%	18%	9%	9%	91%	91%	-1%	-1%	4%
Pressure 1	18%	18%	9%	9%	91%	91%	-1%	-1%	4%
Pressure 2	38%	27%	38%	51%	30%	30%	23%	14%	-6%
State	0%	50%	50%	0%	0%	75%	50%	25%	0%
Impact (persons)	23%	17%	6%	6%	-4%	-6%	2%	1%	9%
	620	1'130	160	100	-660	-1'500	700	240	90
Response	23%	23%	23%	23%	23%	23%	23%	23%	23%

ACE Alpine Crossing Exchange

ACE	FREJUS		MONT BLANC		GOTTHARD		BRENNER		TARVISIO
	Pie	RA	RA	VdA	CCH	TI	TYR	STY	FVG
Driver	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pressure 1	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pressure 2	17%	7%	27%	39%	-32%	-32%	24%	16%	-9%
State	0%	50%	50%	0%	0%	75%	50%	25%	0%
Impact	33%	20%	2%	2%	-4%	-2%	6%	5%	38%
(persons)	900	1'310	50	30	-750	-430	1'980	2'150	360
Response	9%	9%	9%	9%	9%	9%	9%	9%	9%

Conclusion

Indicator “Response” ↔ Rating of scenarios

Scenario	BAU	BAT	AETS	ACE
Ranking	4	3	2	1