

**ESTRATTO DEL PIANO DI MONITORAGGIO
DEL PIANO D'AZIONE PER L'ENERGIA
SOSTENIBILE DEL COMUNE DI
MEZZOCORONA**

Spett.le Comune di Mezzocorona

Piazza della Chiesa, 1

38016 Mezzocorona

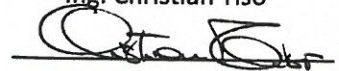
c.a. ing. Dora Pasquale

Oggetto: Estratto dei dati di Monitoraggio del PAES di Mezzocorona

Si riportano gli estratti delle diverse sezioni dell'area dedicata al Comune di Mezzocorona nella pagina internet del Patto dei Sindaci (www.pattodeisindaci.eu), in cui sono stati riportati i dati relativi al piano di monitoraggio effettuato.

Trento, lì 10/09/2015

Ing. Christian Tiso



EMISSION INVENTORY – INVENTARIO DELLE EMISSIONI

Emission inventory

1) Inventory year

2) Number of inhabitants in the inventory year

3) Emission factor

4) Reporting unit

5) Methodological notes

A. Final energy consumption

- ☒ **Buildings, equipment facilities and industries**
- ☒ Municipal buildings, equipment/facilities
 - ☒ Tertiary (non municipal) buildings, equipment/facilities
 - ☒ Residential buildings
 - ☒ Public lighting
 - ☐ **Industry**
 - ☒ Industry Non-ETS
 - ☐ Industry ETS
 - ☒ **Transport**
 - ☒ Municipal fleet
 - ☒ Public transport
 - ☒ Private and commercial transport
 - ☐ **Agriculture, Forestry, Fisheries**
- : Covenant Key Sectors

Edit subtotals ☐

Sector	Final energy consumption [MWh]															
	Electricity	Heat/Cold	Fossil fuel								Renewable energy					Total
			Natural gas	Liquid gas	Heating oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuel	Plant oil	Biofuel	Other biomass	Solar thermal	Geo thermal	
Buildings, equipment facilities and industries																
Municipal buildings, equipment/facilities	255.86	0	770.30	0	0	0	0	0	0	0	0	0	0	0	0	1026.16
Tertiary (non municipal) buildings, equipment/facilities	5135	0	9441	0	0	0	0	0	0	0	0	0	0	0	0	14576
Residential buildings	4417	0	18495	0	0	0	0	0	0	0	0	0	270	0	0	23182
Public lighting	528.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	528.03
Industry Non-ETS	52256	0	16467	0	24159	3340	0	0	0	0	0	0	0	0	0	96222
Subtotal	62591.89	0	45173.3	0	24159	3340	0	0	0	0	0	0	270	0	0	135534.19
Transport																
Municipal fleet	31.70	0	0	0	0	25.90	0	0	0	0	0	0	0	0	0	57.6
Public transport	0	0	0	0	0	169	0	0	0	0	0	0	0	0	0	169
Private and commercial transport	0	0	0	538	0	16796	7758	0	0	0	0	0	0	0	0	25092
Subtotal	31.7	0	0	538	0	16990.9	7758	0	0	0	0	0	0	0	0	25318.6
Total	62623.59	0	45173.3	538	24159	20330.9	7758	0	0	0	0	0	270	0	0	160852.79

B. Energy supply

Municipal purchases

- ☐ Certified green electricity purchased

Local renewable electricity plants

- ☐ Wind
☐ Hydroelectric
☒ Photovoltaics
☐ Geothermal

Local electricity production

- ☐ Combined heat and power
☐ Other

Local heat/cold production

- ☐ Combined heat and power
☐ District heating (heat only)
☐ Other

B2. Local renewable electricity production

Please note that for separating decimals dot (.) is used. No thousand separators are allowed.

Local renewable electricity plants (ETS and large-scale plants > 20 MWe not recommended)	Renewable electricity [MWh]	CO ₂ emission factor [t/MWh produced]	Tonnes CO ₂
Photovoltaics	2963	0	0
Total	2963		0

C. CO₂ emissions

C1. Please insert the CO₂ emission factors adopted [t/MWh]:

If you would like to use default emission factors, please select them from the drop-down menus.

Please note that for separating decimals dot (.) is used. No thousand separators are allowed.

	National electricity	Local electricity	Heat/Cold	Fossil fuel									Renewable energy				
				Natural gas	Liquid gas	Heating oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuel	Plant oil	Biofuel	Other biomass	Solar thermal	Geo thermal	
				Natural ▾	Liquid ▾	Select ▾	Gas/Die ▾	Motor g ▾	Select ▾	Select ▾	Select ▾	Select ▾	Select ▾	Wood (s) ▾	Select ▾	Select ▾	
BE1	0.483	0.483		0.202	0.227	0.271	0.267	0.249									
ME1	0.483	0.483		0.202	0.227	0.271	0.267	0.249									

Your Emission Inventory:

Sector	Tonnes CO ₂															
	Electricity	Heat/Cold	Natural gas	Liquid gas	Heating oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuel	Plant oil	Biofuel	Other biomass	Solar thermal	Geo thermal	Total
Buildings, equipment facilities and industries																
Municipal buildings, equipment/facilities	123.58	0	155.60	0	0	0	0	0	0	0	0	0	0	0	0	279.18
Tertiary (non municipal) buildings, equipment/facilities	2480.21	0	1907.08	0	0	0	0	0	0	0	0	0	0	0	0	4387.29
Residential buildings	2133.41	0	3735.99	0	0	0	0	0	0	0	0	0	0	0	0	5869.4
Public lighting	255.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	255.04
Industry Non-ETS	25239.68	0	3326.33	0	6740.36	891.78	0	0	0	0	0	0	0	0	0	36198.12
Subtotal	30231.89	0	9125	0	6740.36	891.78	0	0	0	0	0	0	0	0	0	46989.03
Transport																
Municipal fleet	15.31	0	0	0	0	6.92	0	0	0	0	0	0	0	0	0	22.23
Public transport	0	0	0	0	0	45.12	0	0	0	0	0	0	0	0	0	45.12
Private and commercial transport	0	0	0	122.13	0	4484.53	1931.74	0	0	0	0	0	0	0	0	6638.4
Subtotal	15.31	0	122.13	0	4536.57	1931.74	0	0	0	0	0	0	0	0	0	6606.75
Total	30247.2	0	9125	122.13	6740.36	5428.35	1931.74	0	0	0	0	0	0	0	0	53594.78

Additional comments

SUSTAINABLE ENERGY ACTION PLAN – PIANO D'AZIONE PER L'ENERGIA SOSTENIBILE

Sustainable Energy Action Plan					
1) Title	no name				
2) Date of formal approval	2012-12-27				
3) Decision body approving the plan	Comune di Mazzorana				
4) SEAP webpage					
5) Business-as-Usual projections by 2020 (if applicable)	<table><tr><td>CO₂ emissions (in t CO₂ (eq.)/a)</td><td> </td></tr><tr><td>Final energy consumption (in MWh/a)</td><td> </td></tr></table>	CO ₂ emissions (in t CO ₂ (eq.)/a)		Final energy consumption (in MWh/a)	
CO ₂ emissions (in t CO ₂ (eq.)/a)					
Final energy consumption (in MWh/a)					
6) Methodological notes					
7) Estimates of the impacts of actions in 2020 in relation to	EIP1 2007 (Option 1)				

Key Actions of the SEAP

Add action
 Delete action
 Edit action
 Select/edit action as Benchmark of Excellence

Please start by providing your details by sector and add your key actions afterwards.

Please click on the edit icon for each action in order to provide its status of implementation and any other fields you wish to update.

Key Actions	Area of intervention	Policy Instrument	Origin of the action	Responsible body	Implementation timeframe		Status of implementation	Estimated implementation cost (€)	Implementation cost spent so far (€)	Estimates in 2020				
					Start time	End time				Energy savings [MWh/a]	Renewable energy production [MWh/a]	CO ₂ reduction [t CO ₂ /a]		
MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES											3204.21	0	650	
Replacement of the municipal buildings' boiler with heat pumps system	Integrated action (all above)	Public procurement	Local authority	Public Administration	2016	2020	Not started	122000		402	0	81		
Installation of flow reducers (water saving) in all the municipal buildings	Integrated action (all above)	Public procurement	Local authority	Public Administration	2013	2013	Not started	0		32	0	8		
installation of thermostatic valves	Integrated action (all above)	Awareness raising / training	Local authority	Public Administration	2016	2020	Not started	0		201	0	41		
Renovation of 4 municipal buildings	Integrated action (all above)	Public procurement	Local authority	Public Administration	2013	2020	Ongoing	0		2545.21	0	514		
Estimated "rebuilds" not associated with any "rebuild" activity										24	0	6		

Estimated reduction not associated with any reported saving

TERTIARY BUILDINGS, EQUIPMENT/FACILITIES									0	0	0	
RESIDENTIAL BUILDINGS									6663.20	0	1373.95	
Replacement of 10% of the residential boilers with heat pumps system	Renewable energy for space heating and hot water	Other	Not possible to say	Privat sector	2013	2020	Ongoing	0	800	0	161	☆ 🌱 🌳
installation of thermostatic valves	Energy efficiency in space heating and hot water	Awareness raising / training	Not possible to say	Privat sector	2016	2020	Not started	0	600	0	161	🌱 🌳
insulation residential buildings	Building envelope	Awareness raising / training	Not possible to say	Privat sector	2013	2020	Ongoing	0	618	0	125	☆ 🌱 🌳
replacement of lamps with high efficiency ones	Energy efficient lighting systems	Awareness raising / training	Not possible to say	Privat sector	2013	2020	Ongoing	0	940.61	0	454	☆ 🌱 🌳
replacement antiquated appliances	Energy efficient electrical appliances	Awareness raising / training	Not possible to say	Privat sector	2013	2020	Ongoing	0	680	0	328	☆ 🌱 🌳
Estimated reduction not associated with any reported actions									2024.59	0	144.95	
PUBLIC LIGHTING									337	0	163	
Renewal of the municipal public lighting with high efficiency lighting	Energy efficiency	Public procurement	Local authority	Public Administration; A.I.R.	2013	2020	Ongoing	0	337	0	163	☆ 🌱 🌳
INDUSTRY									10111	0	7062.54	
extension of natural gas network and substitution of oil boiler with condensation boiler	Energy efficiency in industrial processes	Third party financing: PPP	Local authority	Public Administration	2013	2020	Postponed	0	0	0	2178.94	🌱 🌳
Energy Consumption Reductions	Energy efficiency in industrial processes	Not applicable	Not possible to say	private	2007	2014	Completed		10111		4883.60	☆ 🌱 🌳
TRANSPORT									2	0	665.34	
Replacement of 2 municipal vehicles with two more efficient	Cleaner/efficient vehicles	Other	Not possible to say	Technical office	2011	2011	Postponed	0	2	0	0.65	🌱 🌳
Renewal of the private fleet	Cleaner/efficient vehicles	Awareness raising/training	Not possible to say	Technical office	2013	2020	Ongoing	0	0	0	564.33	☆ 🌱 🌳
Replacement of 1 municipal vehicle with an electric bike and an electric scooter	Cleaner/efficient vehicles	Awareness raising/training	Local authority	Technical office	2015	2015	Postponed	0	0	0	0.36	🌱 🌳
Electric vehicle recharge spot and electrical bike sharing	Electric vehicles (incl. infrastructure)	Public procurement	Local authority	Technical office	2015	2018	Ongoing	50000				☆ 🌱 🌳
Estimated reduction not associated with any reported actions									0	0	0	

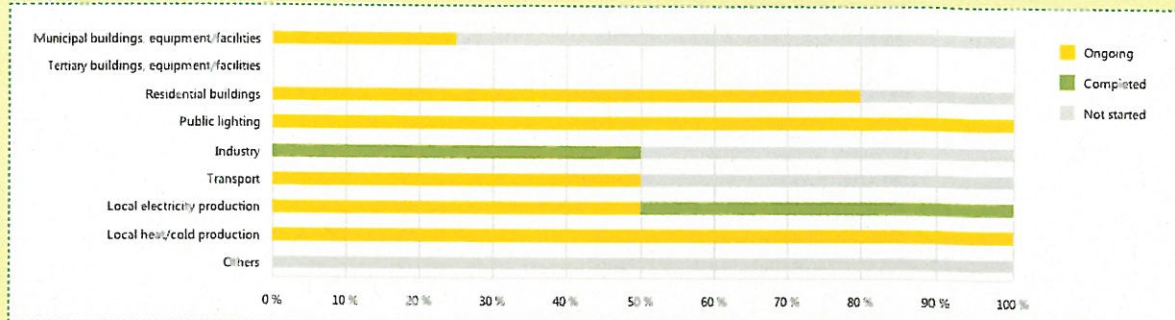
LOCAL ELECTRICITY PRODUCTION										0	7182.84	3474.48	
Hydroelectric power plant	Hydroelectric power	Other	Local authority	Public Administration	2012	2020	Ongoing	3500000	0	0	2943	1421.47	☆/🌱
Installation of a photovoltaic plant on the departure stations of the cableway "Monte Mezzacorona"	Photovoltaics	Awareness raising / training	Not possible to say	Private society	2011	2011	Completed	0	0	0	14.73	7.12	☆/🌱
Installation of photovoltaic plants on private	Photovoltaics	Public procurement	Local authority	Private sector	2007	2012	Completed	0	0	0	1942.85	938.39	☆/🌱
Installation of photovoltaic plants on private roofs	Photovoltaics	Awareness raising / training	Local authority	Private sector	2012	2020	Ongoing	0	0	0	1991.72	962	☆/🌱
Installation of photovoltaic plants on municipal buildings managed by third parties	Photovoltaics	Public procurement	Local authority	Public Administration	2007	2012	Completed	0	0	0	4.04	1.95	☆/🌱
Installation of photovoltaic plants on municipal buildings managed by third parties	Photovoltaics	Public procurement	Local authority	Public Administration	2013	2020	Ongoing	0	0	0	297.20	143.55	☆/🌱
Estimated reduction not associated with any reported actions										C	0	0	
LOCAL HEAT/COLD PRODUCTION										0	698.48	188.51	
Biomass or Cogeneration heat power plant	District heating/cooling plant	Third party financing, PPP	Local authority	Public Administration	2015	2020	Ongoing	1535500	0	0	698.48	188.51	☆/🌱
OTHERS										0	0	0	
Deployment of an Energy meter	Other	Awareness raising / training	Local authority	Technical office	2013	2013	Postponed	40000	0	0	0	0	🌱
TOTAL								0	0	19517.41	7892.02	13497.82	

SYNTHESIS REPORT – REPORT DI SINTESI

Your SEAP implementation progress

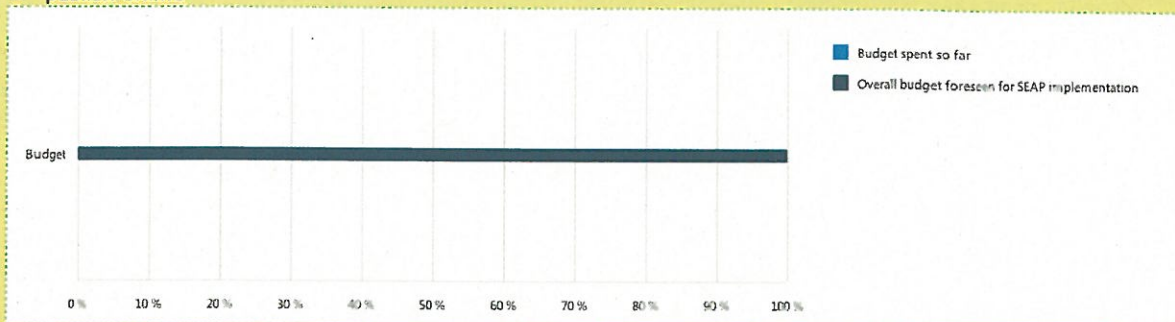
1) Status of Implementation of actions

☒ publish online



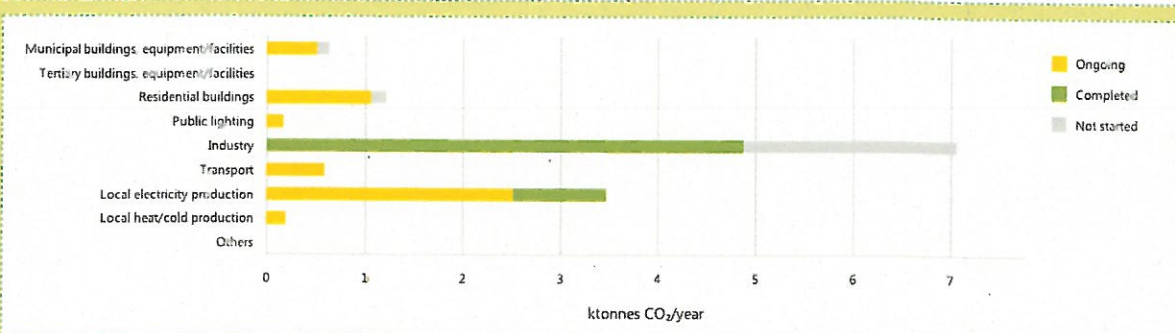
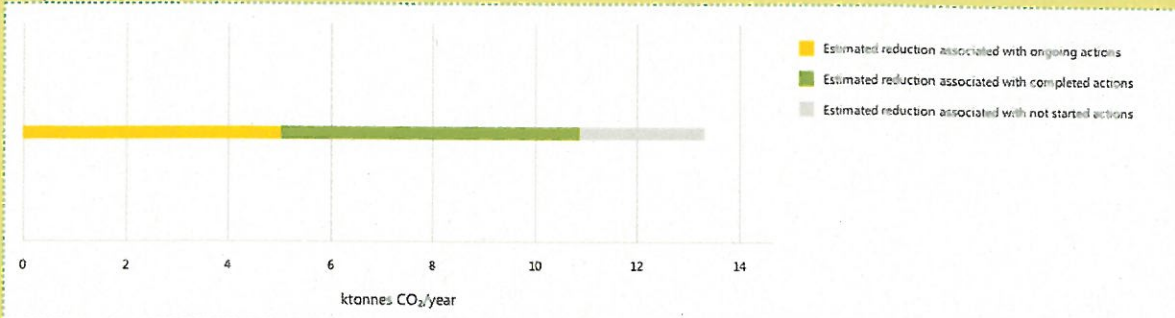
2) Overall budget spent

☒ publish online



3) Estimated greenhouse gas emissions reduction according to the implementation status of the actions

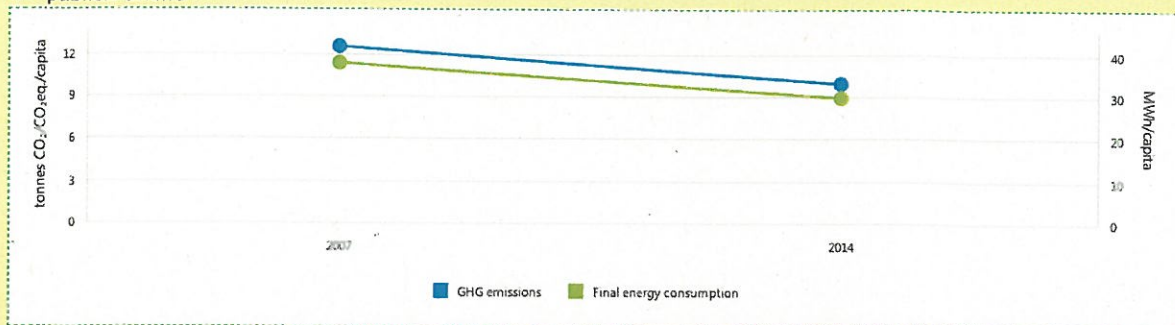
☒ publish online



Your performance towards energy sustainability

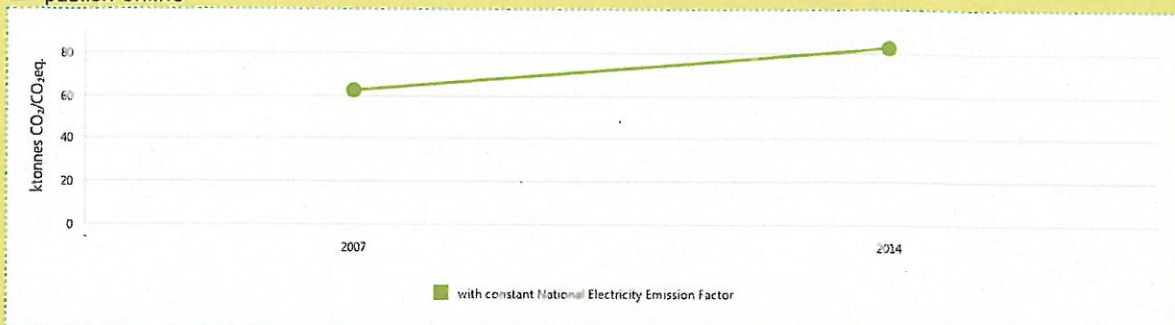
4) Greenhouse gas emissions and final energy consumption per capita

☒ publish online



5) Greenhouse gas emissions (influence of the National Electricity Emission Factor)

☒ publish online



6) Greenhouse gas emissions per sector

☒ publish online



7) Final energy consumption per sector

☒ publish online



8) Final energy consumption per energy carrier

☒ publish online

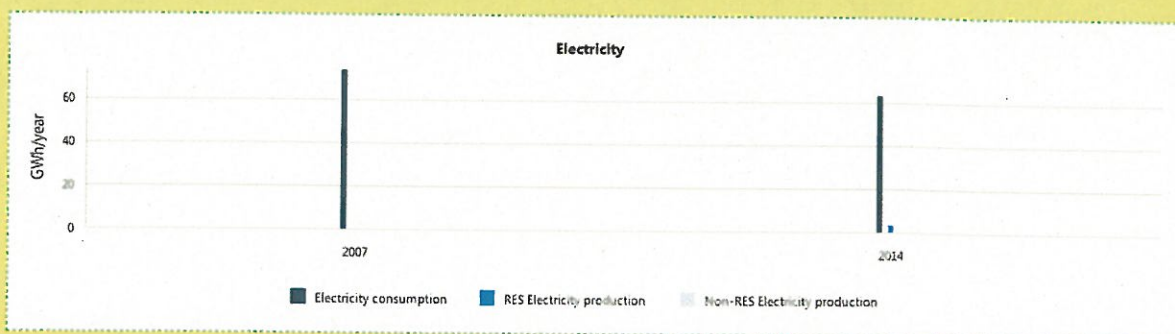


9) Local energy production

☒ publish online

Share of local energy production to overall final energy consumption

0.9%



Observations:

☐ publish online

OVERALL STRATEGY – STRATEGIA GLOBALE

1) Overall CO ₂ reduction target	2020 target	21 %	Long-term target		%
	Baseline year	2007	Target year	Please choose!	
	Reduction target type	per capita			
	Population estimates by 2020	5500			

2) Vision

(Max. 700 characters)

3) Coordination and organisational structures created/assigned

the city administration will monitor it supported by external consultants

(Max. 700 characters)

4) Staff capacity allocated

SEAP preparation:	SEAP implementation*:
☐ Local authority ☐ Local/regional energy agency ☒ External consultant ☐ Covenant Territorial Coordinator ☐ Other	☐ Local authority ☐ Local/regional energy agency ☒ External consultant ☐ Covenant Territorial Coordinator ☐ Other

Full-time equivalent job(s)

one person

(Max. 700 characters)

* : at least one checkbox is mandatory

5) Involvement of stakeholders and citizens

public meetings with citizens and stakeholder and flyers.

(Max. 700 characters)

6) Overall estimated budget for the implementation of your SEAP

☒ Local Authority* ☐ Other Actors*	Budget spent so far (€) 0 Investment Non-Investment 0 Total	Overall budget foreseen for SEAP implementation (€) 18900000 Investment Non-Investment 18900000 Total implementation cost
--	--	--

Time period years years

(Max. 700 characters)

* : at least one checkbox is mandatory

7) Foreseen financing sources for the implementation of your SEAP

☒ **public**

- ☒ Local Authority's own resources
☒ National Funds and Programmes
☒ EU Funds and Programmes

Please specify the %

10
0
0

☒ **private**

- ☒ Private

90

(Max. 700 characters)

8) Monitoring process

not implemented

(Max. 700 characters)

Please rate (little/fair/strong/not applicable) the main problems encountered during SEAP implementation, either overall or by key Covenant sector:

	All sectors	Transport	Municipal	Tertiary	Residential
Limited financial sources	Strong				
Absence of / weak regulatory framework	Fair				
Lack of technical expertise	Fair				
Lack of support from stakeholders	Fair				
Lack of political support at other admin. levels	Fair				
Changes in the local political priorities	Strong				
Incompatibility with national policy orientations	Fair				
Immature or high cost technologies	Little				

Additional comments

(Max. 700 characters)