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Object	Area	Air temperature increase	Rainfall change	Average wind speed change	Sea level rise	Storms	Flooding	Wild fire	Air quality
Solar installation	Mechanical damage to installations								
	Energy production from installations								
	Access to the installation								

The sensitivity maxtrix under consideration

- Our task: verify the sensitivity matrix to reject the climate change effects that are not significant for the installation
- Our assumption:the installation is located in the Bologna countryside



Air temperature

Mechanical damage not really affected

→ Medium risk

Energy production can be severely reduced by 10-25% by the heat (source: cedgreentech) → High risk

Access to the location is not impacted by Air temperature increase

→ Low risk



Rainfall change

Mechanical damage Installations prepared to resist to rain

→ Low risk

Energy production

Two issues:

- less sunlight
- cleaning problems due to drought solar-panel-cleaners.com

→ Medium risk

Access to the location cannot be harmed by rainfall change

→ Low risk



Average wind speed change

Mechanical damage Considering the average speed

→ Medium risk

Energy production

→ Low risk

Access to the location

→ Low risk



Sea level rise

Mechanical damage

→ Low risk

Energy production

→ Low risk

Access to the location

→ Low risk



Storms

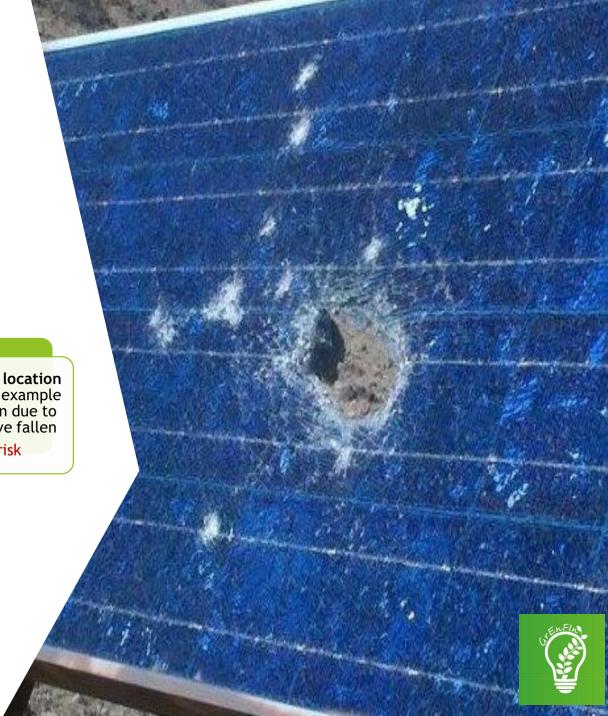
Mechanical damage -High winds can tear off a solar panel and send debris puncturing others → High risk

Energy production installations are extremely well built, many of them come out of a storm without any damage

→ Medium risk

Access to the location ex. traffic for example can slow down due to trees that have fallen

→ High risk



Floodings

The presence of Reno, Santerno, Sillaro, Idice, Savena, Samoggia in the region leads to High risk in all categories



Mechanical damage → High risk

Energy production

→ High risk

Access to the location

→ High risk



Wild fire

Mechanical damage → High risk Energy production

→ High risk

Access to the location → High risk



Air quality

Mechanical damage

→ Low risk

Energy production source: weforum

→ High risk

Access to the location

→ Low risk



From the original matrix to the verified matrix:

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Our conclusions:

We **reject** the following climate change effect of climate on the installation:

- Rainfall change
- Average wind speed
- Sea level rise

