







Soziale Akzeptanz als Baustein für eine erfolgreiche Umsetzung von Agri-PV: Perspektiven aus Landwirtschaft, Naturschutz, Verwaltung und Gesellschaft



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Why does acceptance matter?

KEINE

Windräder

in Wäldern

Größere Mindestab-

stände (10-H) zur Wohnbebauung

Source: tagesspiegel.de



Source: faz.de



Source: moz.de



Source: moz.de

Source: SynAgri-PV



vollständig erreicht hat. Wieso muss dann ausgerechnet ein für

Mensch und Natur so wertvolles Landschaftsschutzgebiet dafür herhalten? Wir appellieren dringend an Brandenburgs Umweltminister Axel Vogel: Setzen Sie sich für die Ziele des Naturparks ein und geben

Sie keine Flächen für Freiflächen- und Agri-Photovoltaik frei!

Lasst uns gemeinsam das Landschaftsjuwei MÄRKISCHE SCHWEIZ

retten! Unterschreibe jetzt und trage dazu bei, den Naturpark Märkische Schweiz für die Natur und kommende Generationen





Results from two empirical studies











Agriculture

Policy & Planning

Nature Conservation

(local) citizens

Study 1: qualitative expert interviews (n=31)

Study 2: quantitative survey (n=1000)

RQ 1: What are perceived benefits and risks of agrivoltaics installations?

RQ 2: Which sites are preferred?





Perceived benefits by experts:

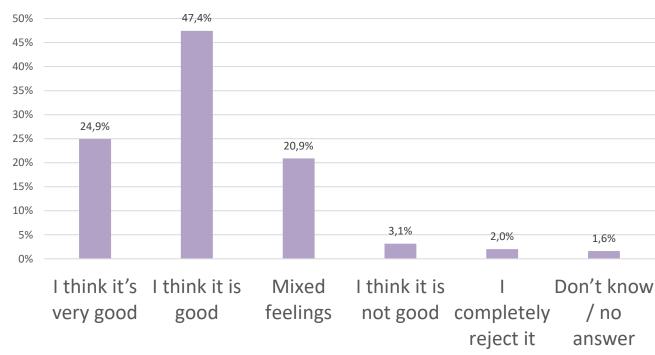
- Dual land use: central benefit compared to other renewables
- Synergies for agriculture: protection for special crops and animal husbandry
- → Photovoltaic system has to benefit agricutlure
- Economic benefits: additional income for farmers and municipalities
- → Financial benefits have to be visible





General attitude of society:

What is you attitude towards agrivoltaics?





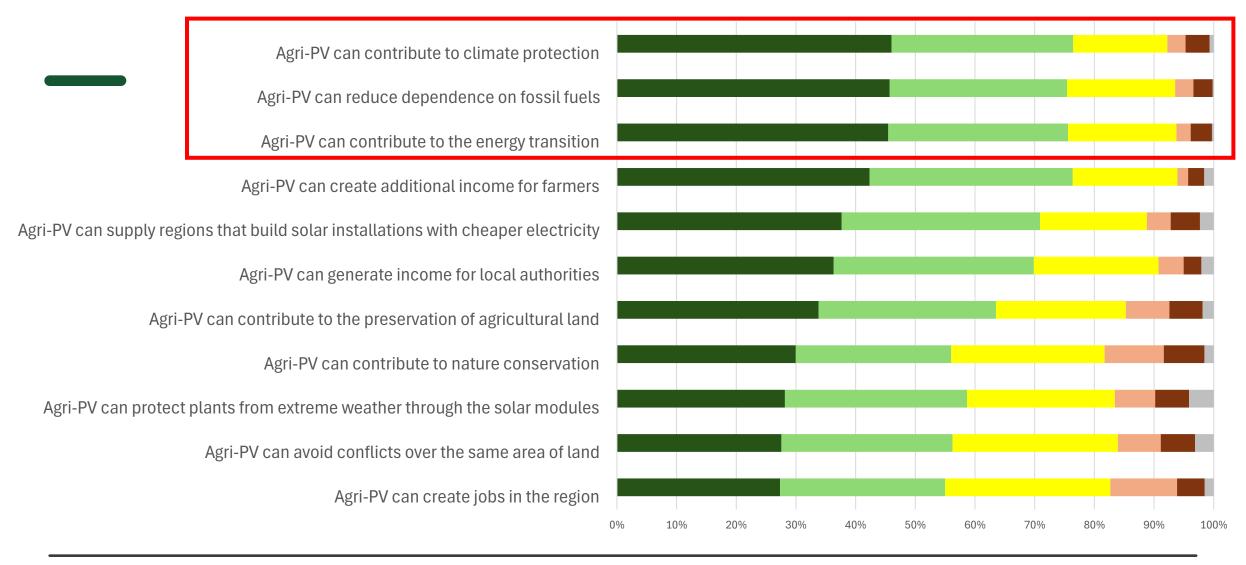
fully agree

rather agree

partly agree



Results: Benefits perceived by society



rather not agree

don't agree at all

don't know / no answer



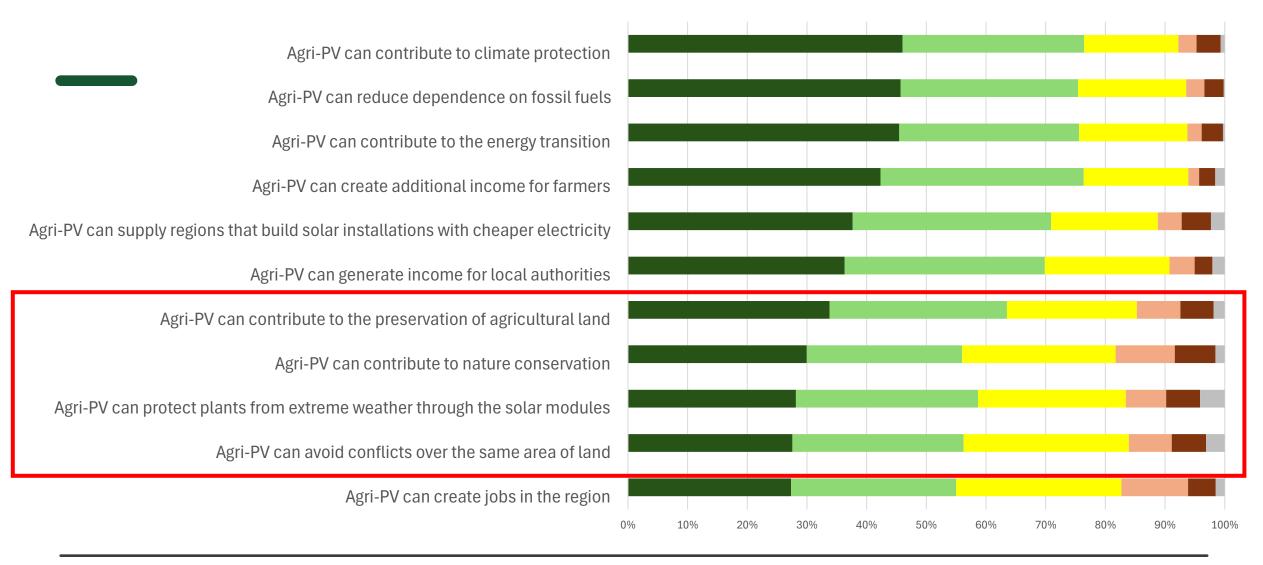
fully agree

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Results: Benefits perceived by society



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don't know / no answer





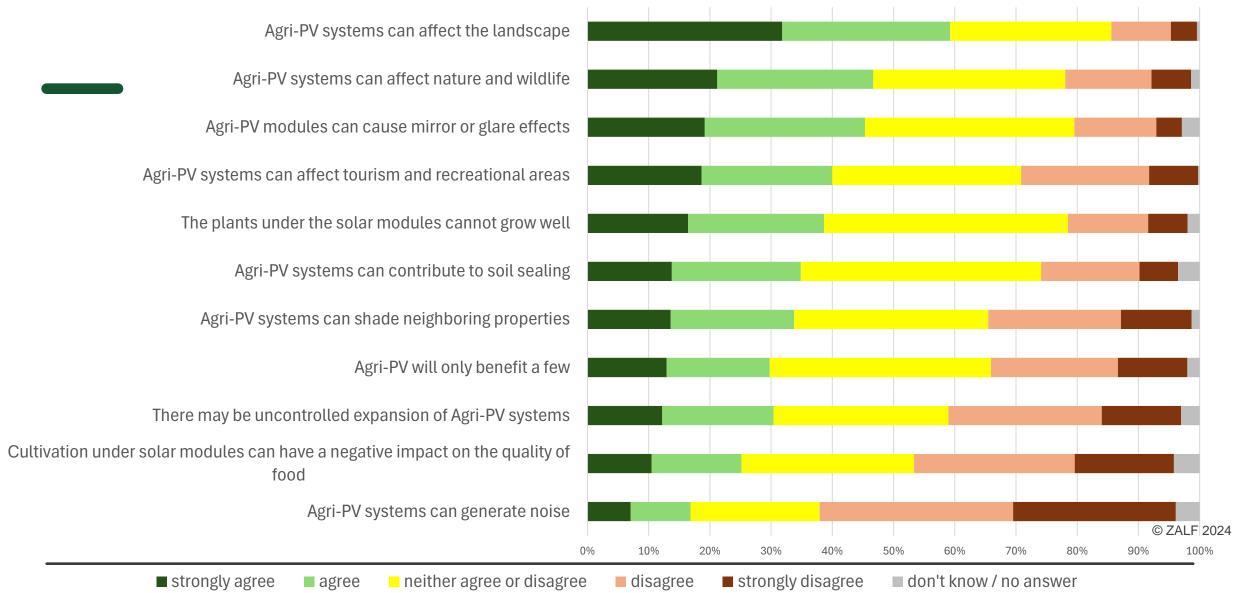
Perceived risks by experts:

- Unresolved issues of resource consumption, dismantling and recycling
- "Sell-out" of land to investors for AV that does not focus on agriculture
- Need for compensatory measures which require extra land
- Landscape aesthetics, negative impact on nature and wildlife



3.2 Results: Risks perceived by society









Expert opinion: Siting and agricultural land use

- Clear preference for solar installations on rooftops
- Not too much solar at once → mix and speed of renewable expansion is important
- Expansion with a sense of proportion and sensitive site selection

"I think that AV systems have a much higher acceptance than conventional PV systems. It is an important criterion for the population, that we preserve land for agriculture." (Planning authority)







Expert opinion: Siting and agricultural land use

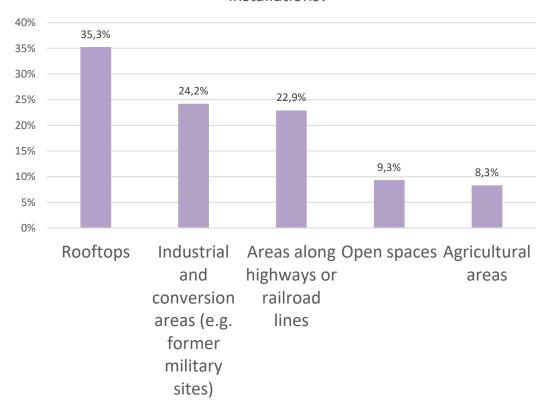
- Feasible and preferred: special crops and livestock farming → potential contribution to energy transition limited
- Crop production (currently) not very suitable (too expensive)
- Agriculture and policy: AV on less fertile soils
- Nature conservation: AV on good/intensively farmed soils

"For nature conservation, everything that is associated with extensification is positive. They like it when arable land becomes a meadow. Because it is then no longer farmed so intensively. Of course, this is difficult from an agricultural point of view if you then lose land." (Administration)

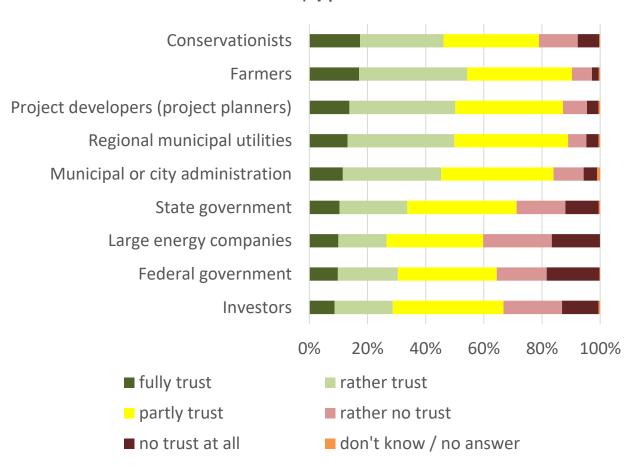


Siting preferences of society

Which areas should be used primarily for solar installations?



How much do you trust the following groups of people to develop good solutions for the expansion of agri-PV?



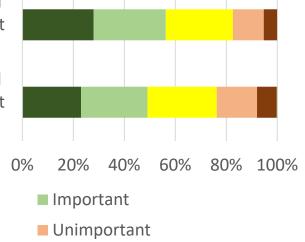


Siting preferences of society

Site selection: How important are the following points when choosing a site for an Agri-PV system?

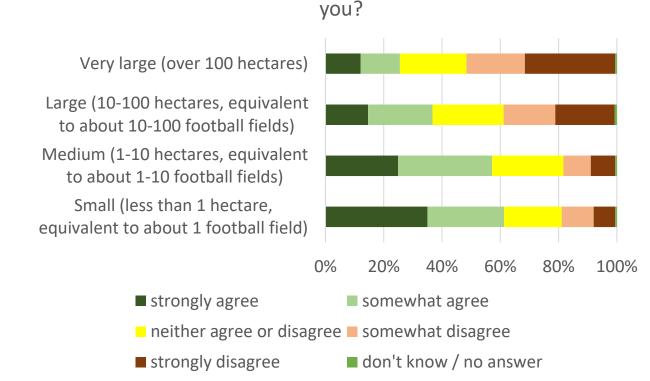
The location should be selected so that the Agri-PV system is not visible from tourist and...

The location should be selected so that the Agri-PV system is not visible from residential areas



■ don't know / not answered

- Very important
- Neutral
- Very unimportant



What size of agri-PV system would be acceptable to





Societal expectations for participation in Agri-PV

That cheap electricity is produced for citizens and companies

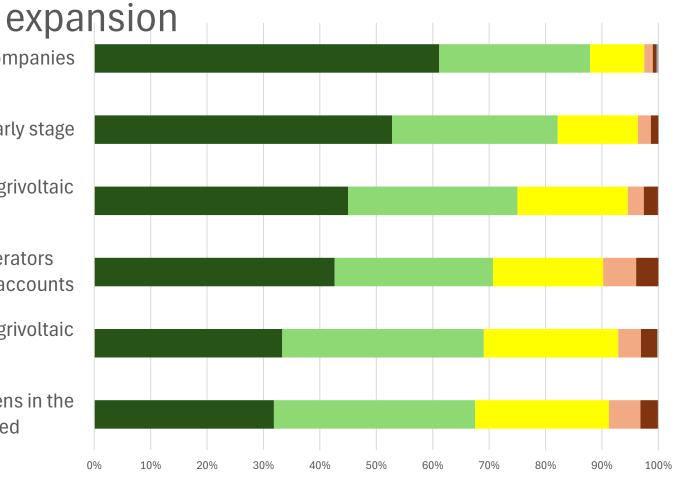
To be informed at an early stage

The municipalities should have a say in the design of an agrivoltaic system

In order to involve the municipalities financially, the operators should pay an amount from the profits into the municipal accounts

That there are investment opportunities for citizens in agrivoltaic systems

That there are participation procedures for citizens in the municipalities when the system is approved





Summary: Acceptance for Agrivoltaics is high, but:

- Main benefits of AV are less known among the society
- Potential land use conflicts between nature conservation and agriculture
- Preference for small installations vs fast energy transition
- Small systems more accepted, but electricity should be cheap



Recommendations

Participation matters!

- Early information and involvement of the local population,
- Visible (financial) participation, energy cooperatives create ownership

Size and context matter!

- Expansion with a sense of proportion
- Sensitive site selection adapted to local conditions

Communication matters!

- Explain synergy effects better,
- Address perceived risks transparently through proactive, early risk communication
- Leverage trusted messengers: Involve farmers and local actors
- Coordination and cooperation between the energy and agricultural sectors and nature conservation





Thank you for your attention!

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