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Data in Brief

Data Article

Survey data of stated farmer's preferences and willingness to supply straw

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ARTICLE INFO

ABSTRACT

This data article provides a data description on article entitled "Assessing farmers' willingness to supply biomass as energy feedstock: Cereal straw in Apulia (Italy)" (G. Giannoccaro, C.B. de Gennaro, E. DeMeo, M. Prosperi, 2017). This DiB consists of data obtained through a survey to farmers in Foggia Province, Italy. The survey was carried out by means of a structured questionnaire administrated to about 200 local wheat producers. Face to face interviews were carried out by professionals. From the hard copy of questionnaire, data were firstly transferred into an excel sheet, than exported to STATA.14 software. The file contains text, dummy and metric variables with reference to a number of variables such as on-farm structural features (land size, crops, livestock units, grain and straw yields, etc.), socio-economic (straw price, willingness to accept, off-farm job, income, membership of farm union, etc.) and personal (farmer's age, family members, educational level, etc.). Data has not been uploaded to a public repository.

Specifications Table

Subject area	Economics
More specific subject area	Farmer's behavior and their willingness to sell on-farm straw
Type of data	Text, dummy and metric variables
How data was acquired	By a survey to farmers. A structured questionnaire was administrated by face to face interview

Data format	Some basic filtering has been applied
Experimental factors	None
Experimental features	The contingent valuation (CV) methodology is a survey-based stated preference technique in which respondents are asked to express their preferences directly.
Data source location	24 municipalities in Foggia Province (Apulia Region, south-eastern Italy)
Data accessibility	Data is with this article

Value of the data

- Assessment of biomass availability has generally been focused on technical and agronomic feasibility. The farmer's stated preference could be an alternative method to estimate the supply curve (e.g. biomass availability at any price). Comparison between this approach and the conventional one could lead to new interdisciplinary collaborations.
- In the economics of biomass, farmers' actual willingness to supply remains under-researched, therefore this data could be used as base for further experiment.

Data

The attached file (Appendix A) contains text, dummy and metric variables. It consists of a number of variables (showed in column) such as on-farm structural features (land size, crops, livestock units, grain and straw yields, etc.), socio-economic (straw price, willingness to accept, off-farm job, income, membership of farm union, etc.) and personal (farmer's age, family members, educational level, etc.).

1. Experimental design, materials and methods

The data source for this analysis was a survey of farmers in 24 municipalities in Foggia Province of Apulia Region, south-eastern Italy. Based on the list of farmers in the official state census [1], a stratified sample was designed on the basis of median values of farmland used to grow cereals within each municipality. The municipalities were selected throughout Foggia Province at a distance of up to 70 km from an energy plant site, which is being built in the municipality of Sant'Agata di Puglia.

A questionnaire was designed in order to collect data from farmers on a range of topics including farming practices, farm profile, current straw uses, and socio-demographics, as well as farmers' willingness to enter the energy market and their relative willingness to sell their straw on this market.

To assess the straw price (EUR ha^{-1} equiv. per annum) on energy market, we used the contingent valuation (CV) methodology.

Data survey from 203 farmers has been used to construct supply curves for the current straw market and for the hypothetical straw market for energy uses, while a two-step Heckman model [2] has been applied in the econometric regression.

The two-stet Heckman model has been performed using STATA.14 software.

The command code as follows.

heckman willingness_to_accept_selling total_cereals_area ib(first).provision_agreement ib(first). agro_environemntal_sheme ib(frequent).straws_disposal ib(first).off_farm_job if stated_enter_market < 2, twostep select(participation = ib(first).agro_environemntal_sheme ib(first).farm_system) rhosigma.

Acknowledgements

Transparency document. Supporting information

Transparency data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2016.12.034.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2016.12.034.

References

[1] ISTAT, VI General Census of Agriculture, ISTAT, Rome, Italy, 2010.
[2] J. Heckman, Sample selection bias as a specification error, Econometrica 47 (1) (1979) 157–161.