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Agriculture, Ecosystems and Environment

journal homepage: www.elsevier.com/locate/agee

Editorial

How to get your paper published in 'Agriculture, Ecosystems & Environment'



1. Introduction

The Journal Agriculture, Ecosystems & Environment (AGEE) is receiving many (3500 annual submissions on average during the last three years) submissions every year. Unfortunately, is our desk rejection rate on scope fit high (three years average about 80 %), suggesting a mismatch between which manuscripts are submitted for publication and which papers the journal wants to publish. There are several recurring reasons why manuscripts are declined and with this editorial we want to help potential authors to make a better evaluation if their manuscript is fitting for our journal before submitting.

Agriculture, Ecosystems & Environment was founded in 1983 and has known several changes and modifications in the types of topics and subjects published. Over time the aims and scope have been reformulated to better explain the subject niche of the journal.

We will in detail explain how we as editorial board interpret our current scope when evaluating submissions. We will also discuss methodological requirements we expect from submissions to illustrate what we prefer to publish. There are two main lines of considerations which we use to establish the suitability of a manuscript, 1) Scope and aims fit; 2) Methodological requirements and approaches. To facilitate an easy manuscript check we have developed two flow charts (Figs. 1 and 2) to allow a systematic suitability check.

2. Fitting the aims and scope

"Agriculture, Ecosystems & Environment" publishes novel, high impact research conducted at various spatial scales - from experimental plots and field trials to farm-, agroecosystem- and landscape-level investigations - with preference given to hypothesis-based and/or data-rich investigations. We particularly encourage broadly significant studies of agroecosystems that deal with cross-scale interactions, bridge scientific disciplines or integrate new knowledge and perspectives relevant to agroecosystem management or agri-environmental policies.

This quote from our scope highlights that we prefer hypothesis based empirical plot/field studies yielding new data that focus on the (cross-scale) interactions in the Agriculture, Ecosystems & Environment domain. See the flowchart in Fig. 1 for a stepwise evaluation of the aims and scope fit. Central is the agricultural domain and its interaction with either ecosystems or the environment. So studies focused only on ecosystem-environment interactions are outside the scope of our journal. It is also important to highlight that we expect studies to measure and analyse how changes in agricultural management affect changes in the ecosystem/environment properties and/or vice versa. So landscape ecological studies in an agricultural landscape, where agriculture is the

stage of the study fall outside the scope.

Overall, all submissions should be placed in an international and/or widely comparative context, implying that local and regional studies fall usually outside the scope of the journal. Agriculture, Ecosystems & Environment therefore rarely publishes papers focused on a specific agricultural system in a particular environmental setting.

3. What we prefer to publish

In our aim and scope we identify as AGEE's core subject-matter fields/topics:

- Mechanisms governing bio-physical features and functioning of agroecosystems (e.g., the biogeochemistry, ecology, and sustainability of agricultural systems)
- The interplay between agroecosystems and the environment (soil, air, and water) and the role of ecological processes in provision of ecosystem services
- Agroecosystems and their role in catalysing/mitigating global change (climate change, greenhouse gases and biodiversity loss)
- Ecological consequences of land use intensification and other human impacts (soil degradation and erosion, water and waste management, and associated mitigation approaches)
- Environmental implications of agricultural land use and land use change (biodiversity conservation and land management, and ecological restoration and stewardship)

All these topics deal with either Agro-Ecological or Agro-Environmental interactions by means of measurable mechanisms and processes. This focus implies that pure agronomic studies often aimed at yield maximization and/or optimizing management strategies are outside the scope of AGEE. This brings us to the next paragraph where we highlight which methodological topics we prefer or discourage.

4. Methodological requirements and approaches

There is a clear list of topics and methodologies that are discouraged to be submitted. Such discouraged methodological studies can make a contribution to the general body of literature in their specific domains, but we consider them less relevant for studying the (cross-scale) interactions in the Agriculture, Ecosystems & Environment domain. See the flowchart in Fig. 2 for a stepwise evaluation of the methodological requirements.

These discouraged topics are:

<https://doi.org/10.1016/j.agee.2023.108687>

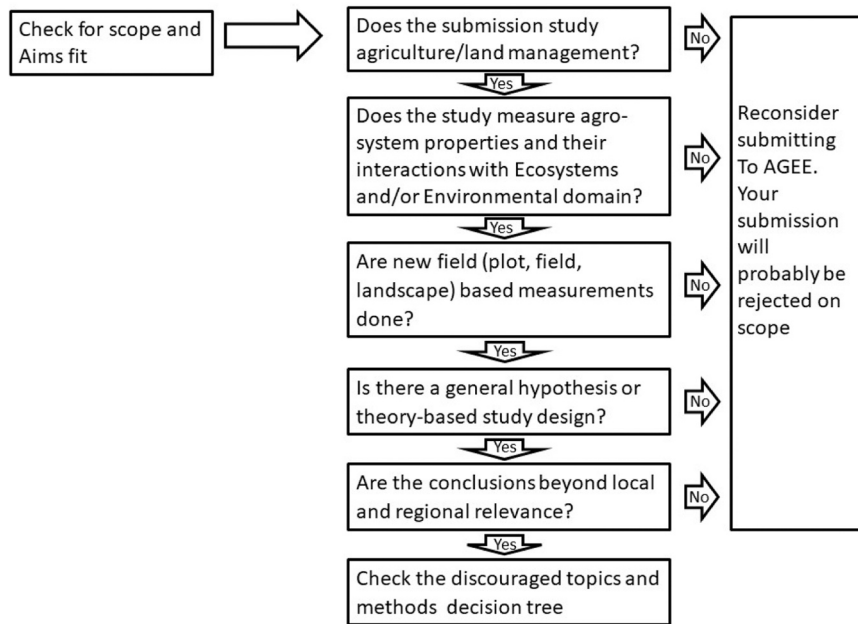


Fig. 1. Flowchart with stepwise evaluation of the scope and aims fit.

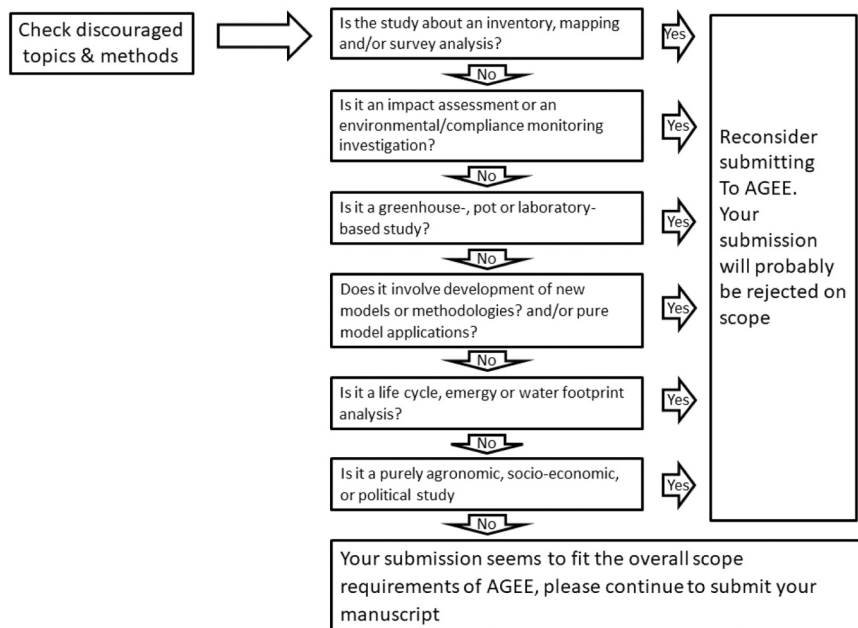


Fig. 2. Flowchart with stepwise evaluation of discouraged, topics and methods.

- Inventory and survey analysis (including life cycle and emergy analysis).

We do not publish mapping, inventory or surveys efforts nor suitability or other (land) evaluation approaches based on such efforts. Also characterization studies (DNA fingerprinting and Remote Sensing inventories) are outside the scope of AGEE.

- Impact assessment and environmental/compliance monitoring investigations

Any assessment study on impact and/or monitoring of environmental hazards such as mine spills, heavy metals and heavy polluted areas fall outside our scope.

- Exclusively greenhouse- or laboratory-based studies

Studies that are not field based (plot studies under controlled conditions in a greenhouse or- any laboratory based study) are not

directly relevant for the real world system interaction we want to study. In general, results of studies under controlled environments (lab incubations, pot studies or glasshouse experiments) mostly explain a single parameter. Although these studies can provide insight in one specific controlled parameter, they cannot express the feedbacks between the ecosystems and environment required for our journal. We do publish studies that pair greenhouse experiments with field research.

- Studies on the development of models or methodologies and pure model scenario applications

Model and/or methodological development studies are also out of scope because we prefer hypothesis-based and/or data-based investigations that yield new data and new insights. We do encourage authors to develop and test (statistical) models based on new

empirical data. We also recognise the added value of using models for projecting and demonstrating the potential relevance new results based on new original data. We also invite studies that test existing models with new field data that might lead to model improvements. However, such model improvement studies do require a thorough evaluation of model boundaries, assumptions, application domain and overall validity.

Modeling manuscripts that fall out of scope are desktop studies that generate new 'data' by using general empirical models and general available data sets such as DEM's. An often occurring example is generating erosion rates derived from a DEM and one of the universal soil loss equations. What is often forgotten in such applications, are the underlying model assumptions and validity conditions, causing model derived biases in the data generated. Also the use of model scenario's (climate change for example) to project/predict possible future system states are not considered fitting the scope of our journal. It is common to use large climatic datasets or agronomic data such as FAO yield data. We allow the application of these secondary data sets as long as they are used to provide context for the field research that is the central part of the study.

We encourage model applications that use new original field data and yield new general applicable insights in the Agriculture, Ecosystems & Environment domain.

- Studies using life cycle, emergy or water/carbon footprint analysis. These studies use specific quantitative methodologies based on specific assumptions, underlying conversion tables and labels that expresses the value of a system (property) in specific units depending on the methodology. These approaches have their value, but due to their relabeling and recalculations they hardly produce real new process data that we value.
- Studies that are purely agronomic, ecological, environmental, socio-economic, or political

Agronomy oriented studies which are mainly productivity oriented or aimed at specific crop management are considered outside our scope. The same applies to other more one topic/discipline oriented studies. Studies based on questionnaires report for example farmers intentions or desires but not their actual activities that can be related to properties in the Agriculture, Ecosystems & Environment domain.

These discouraged study types are certainly relevant research topics but they are usually not well suited for publication in AGEE. Sometimes within the scope of a special issue there is some room for these approaches because they contribute to the overall aims of this special issue. Other exceptions are when they are used in combination with other more empirical approaches yielding sufficient new data on the interactions in the Agriculture, Ecosystems & Environment domain.

As stated before, we prefer hypothesis based empirical plot/field studies yielding new data that focus on the (cross-scale) interactions in the Agriculture, Ecosystems & Environment domain. The field and empirical emphasis is necessary to prevent translational challenges that occur with model, laboratory and greenhouse experiments.

5. Scope evaluation flowcharts

Please use the two evaluation flowcharts (Figs. 1 and 2) to evaluate if your submission sufficiently fits the scope requirements for AGEE. The first flowchart checks purely on scope and aims fit, while the second flowchart is about discouraged topics and methods.

6. Methodological requirements

AGEE requires that experimental designs include adequate controls and replicated treatments that meet the requirements of the scientific method. There are many well-established experimental designs that can be used on research stations to test hypotheses that are within the scope of the journal. Designing research to be conducted at larger scales can be

more challenging and requires that the experimental design include replication at the appropriate scale. For example, ensuring adequate replication in studies focusing on the effects of different land use or management systems across a watershed requires each treatment to be repeated within the watershed. Sampling plots or transects within a single area used to represent each treatment is pseudo-replication and is not an acceptable design because the treatments as such are not replicated. In contrast, if this question is about interactions within land-use types or agroecosystems then replication can be accomplished within a single area. For instance, to test the effects of plant communities on soil processes, multiple sites consisting of the different communities within a land-use area or agroecosystem can serve as replications. For more detailed discussions of experimental designs please see Jones et al. (2022), Gotelli and Ellison (2013), and Drinkwater (2002).

The methods section must provide a description of the experimental design, sampling, analytical methods, and statistical analysis in sufficient detail so that readers can fully understand how the research was conducted without having to consult a previous publication. Citing previous publications for the detailed protocols is allowed, though any deviations from published methods need to be explained in your paper. For meta-analytical papers that use previously published data, full citation information for all data sources must be provided. These citations can be included as supplemental information rather than listing them under the literature cited section. Furthermore, to be considered for publication, the complete dataset used in the meta-analysis along with accompanying metadata must be provided at the time of submission. If accepted for publication in AGEE, the data can be linked to the article as supplemental information or stored in global repositories, like Figshare (<https://figshare.com>), Dryad (<https://www.datadryad.org>), or Pangaea (<https://www.pangaea.de>).

7. Editors' discretion

We hope that this editorial helps to clarify the complexity of our aims and scope and helps potential authors to understand what areas and studies at the intersection between Agriculture, Ecosystems and the Environment are welcomed in AGEE.

We hope that the evaluation flowcharts are helpful. In the end it is up to the editors to decide to what extent a study provides sufficiently new information of the agroecosystem-environment interface for a broad international readership. Please bear in mind that when we decline a submission based on poor scope fit, this is not a judgment about its scientific quality. Please refrain from resubmitting when your submission has been desk rejected. This is not a lottery and the editorial systems highlights such resubmission. We will not change our final decision.

8. Relevance of a short cover letter

A cover letter is an opportunity to make a case for the significance of the research to the broader agroecological community and should complement the abstract/highlight rather than simply repeating the information that is presented in these two sections of the paper. In addition to laying out the research goal and key findings, the cover letter should provide a short synopsis explaining the novel contributions of the research from a big picture perspective.

9. General points of attention

Common problems and challenges how to get your paper published are well elaborated and illustrated by a Soil Biology and Biochemistry editorial perspective (Schimel and Ritz, 2020). The AGEE readership is like that of many other similar journals international. This implies that every submission will be weighted for its global relevance and novelty.

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