Ecological accounting for a fair ecological price of food in France

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Agricultural prices rarely reflect the cost of keeping soils fertile, water clean, biodiversity rich, and the climate stable while ensuring decent living conditions for farmers. Farmers who preserve these natural and human capitals therefore bear costs that the market does not pay for. This study addresses a simple, applied question: how much would a farm product cost if its production fully maintained the capitals it depends on?

The work develops and tests an ecological accounting method, C.A.R.E. (Comprehensive Accounting in Respect of Ecology), which treats natural and human capitals in the same way as financial capital: something that must be preserved, not only consumed. Through intervention-research conducted with farmers, ecologists and supply-chain actors, a good ecological state was defined for each natural and human capital and translated into the concrete practices and expenses needed to reach and keep it. These preservation costs are then shown alongside conventional production costs, producing a "double display" of costs for each product.

When applied to a mechanised agroecological garlic farm in the Gers (region of south-west France) that sells through a long supply chain, the method shows that the current price paid to farmer of 3.00 € per kilogram to the farmer (comprising 1.60 € in production costs and 1.40 € in margin) does not cover the cost of preserving water, soil, biodiversity and the climate while ensuring fair pay for farm work. This preservation is estimated at 2.43 € per kilogram. Including this preservation cost would raise the ecological production cost to 4.03 € and the fair ecological price of a kilogram of agroecological garlic, including margin, to 5.43 €, about 80% more than the current price.

This result reveals the true difference between the market price and the actual cost of preserving natural and human capitals in agriculture. It provides a transparent basis for negotiation between farmers, buyers, consumers and public authorities regarding who should bear these costs. Having been tested on twelve case studies, including garlic and dairy farms, the C.A.R.E. accounting model offers a practical tool for agroecological transitions. It helps farmers argue for remunerative prices and provides supply chains and policymakers with a common language to reward ecological preservation.

Keywords: C.A.R.E. ecological accounting; management accounting;; fair ecological price; agroecological transition; dual display of price

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