Multifunctionality, effectiveness and efficiency of a healthy human nutrition also in respect to the eutrophication of the hydrosphere

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Taking the situation in Germany as an example, the nutrition system of agriculture, human nutrition as well as corresponding waste and waste water management contributes by emissions of reactive C, N, P, S to the total eutrophication 80%, acidification 40%, climate change 27%, decline of biosphere 80% and threatening of human health by over nutrition of 70%. Corresponding shares of a more than 2fold too high animal consumption and production are 70, 90, 70, 70 and 80% respectively. – Implemented in a first step by a value added tax (VAT) of 19% corresponding yearly to 20 billion € especially on animal food and give it back to the farmers (50 000 € · farmer^{-1} · yr^{-1}) as a return for a now fixed production system adjusted to sufficiency and sustainability, healthy human nutrition potentially and yearly:

a) Reduces all above mentioned environmental damages and overuse of mineral phosphorus by about -60%;
b) Reduces over nutrition illness costs of 120 Milliards €;
c) Economize 13 Milliards € subsidies for agriculture;
d) And so a win-win situation of (120-20+13=) 113 Milliards € exists with an efficiency of 100%.

No other mitigation option has those enormous positive without negative impacts. Fig. 1 shows both multifunctionality and the corresponding win-win situation of a healthy human nutrition.

Fig. 1 : Tax Levy Model for Animal Products to Relieve the Environment and Public Health (van der Ploeg 2002) (Re0715)