



ONE APPROACH TO ERODE FUTURE EROSION IN RURAL AREAS.

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Different research groups active in, soil conservation, soil erosion, land degradation or desertification, state that big erosion problems are occurring in rural areas. The first question this statement raises is: "What exactly is a rural area?". A rural area is generally seen as an area where human population is low and the biggest part of the area consists of a natural or semi natural landscape and agriculture is often the main form of income. Often rural areas are accompanied by little interference of governmental bodies that regulate certain legislation. The biggest problem with erosion in rural areas is not related to the 'native inhabitants' which often apply land use management structures which derive from ancient family knowledge or communal knowledge. Whether the practices are understood as being either a good or a bad practice is not the key of importance in controlling erosion in rural areas. Either way the practices applied are often concerning small farms, but what is more important, it is seldom that a big change in land use management occurs. Generation upon generation the changes in land use practices evolve slowly, allowing time for the ecosystem to adjust to its management. What is a far bigger problem concerning erosion problems in rural areas, is the 'invasion' or upcoming of agro-businesses that claim big areas of land. One aspect of rural areas is the often low land price one has to pay. The agro-businesses do not necessarily lack this asset and therefore can expand fast and comparatively cheap in rural areas. The lack of regulation in rural areas often results in little to no erosion control measures on these farms. The concept of sustainability on these agro-businesses is merely translated in profits on the market, not in sustainable farming as designed by soil scientists, agronomists or ecologists. If we are able to define rural areas, then also regulations could be designed for rural areas. To tackle the severe impact of erosion in rural areas - 'the invasion of agro-businesses' - regulation can be designed to confine the changes in land use management to be allowed only if it meets particular crite-

ria. One approach I like to put forward for rural area land use management changes is designed by the Natural Resources Conservation Service (NRCS) from the USA. All Member States (MS) of the European Union have signed the Kyoto Protocol. This allows the MS to meet greenhouse gas emissions targets by a variety of means, so that the most cost-effective approach can be chosen. The climate agreement could create a market for an entirely new agricultural commodity: carbon. The maintenance of soil structure through aggregation facilitated by Soil Organic Matter (SOM) plays a key role for the prevention of erosion. Practices that reduce greenhouse gas emissions or increase SOM content, could offer multiple economic and environmental benefits. Practices that increase the amount of soil carbon reduce soil erosion and improve soil quality. As its organic carbon content increases, a soil is better able to hold water and nutrients and its productivity increases. One approach might be to give credits to agricultural producers who increase their stores of carbon in the soil or in trees. Producers could then save the credits or sell them to others that want them in order to offset their own greenhouse gas emissions. The potential market for carbon credits could be substantial and agricultural producers could benefit. The ignorance of the subject climate change that existed some 30 odd years ago and the persevering struggle of many scientist to raise the awareness among the public concerning this subject has succeeded in i.e. the Kyoto Protocol. Now we might benefit from this previous struggle to use the climate agreement to mitigate erosion problems in rural areas by including the asset of the 21st century: the market. Furthermore, this will ultimately lead to an increasing awareness of the precious resource soil and i.e. its influence and interaction on & with the climate. The most efficient way to combat erosion is to erode the basis for erosion. In other words, we shouldn't give ground to erosion, but tackle erosion before it can erode. Erosion can indeed be a positive force!