Internet Appendix A119: Ecological Economics
A119.1 Illustrative Reverse Engineered Pitch Template Example

Pitcher's Name	Manuel Siegrist	FoR category	Ecological Economics	**Date Completed**	8/4/16
(A) Title	*Tipper, R. (1997), Scolel Té: International pilot project for carbon sequestration and community forestry in Chiapas, Mexico https://web.archive.org/web/19990822211450/http://www.ed.ac.uk/~ebfr11/%20 [Reverse Engineered]*				
(B) Basic Research Question	What is the potential of carbon sequestration via agroforestry and improved forest management in southern Mexico?				
(C) Key paper(s)	Brown et al., (1995). Establishment and management of forests for mitigation of greenhouse gas emissions. IPCC 1995 Assessment, pp. 543-578. De Jong et al., (1995). Community forest management and carbon sequestration, a feasibility study from Chiapas, Mexico. Interciencia 20, pp. 409-416.				
(D) Motivation/Puzzle	The vast majority of climate scientists agree that the emission of greenhouse gasses (GHGs) is the main reason for the constant increase in global temperature and its side-effects. The resulting externalities through human activity are considered to be the single largest market failure. A wide range of methods have been proposed to reduce carbon emissions with forestry being one. My goal is to assess the potential for creating carbon sinks via agroforestry and improved forest management, which will include an incentive-based model for local farmers to switch from traditional farming.				
THREE	**Three** core aspects of any empirical research project i.e. the "**ID**io**T**s" guide				
(E) Idea?	The approach in this paper is as follows: The results from a study that has estimated responses from small farmers and communities in southern Mexico, which will be used as a base. The study strives to estimate the likelihood of switching from the current farm use to forestry and agroforestry, stimulated by an incentive in order to create carbon sinks. Recent studies have suggested, that a modest incentive might lead to substantial shifts, seeing that conventional farming is only marginally profitable. The carbon storage in the assessed area has been almost continuously depleting over the last decades, at around -1.4% per annum (1974-96). Having the results from the farmers and communities and the related quantity of incentives, one can estimate the overall potential of carbon sequestered as well as the associated costs (opportunity, switching, and management). The projected land size is 600,000 ha. A key factor is to calculate the net present cost (NPC) to farmers. If incentives offered are higher than the NPC, the likelihood of farmers switching to forestry and agroforestry is high.				
(F) Data?	The study area will be the central highlands of southern Mexico. This area represents a high biodiversity, various forest formations (mostly extensive tree types: pine, pine oak and oak). Rainfall is abundant while the general climate ranges from subtropical to sub-humid. Furthermore, around 80% of the land is under a communal form of tenure. In order to understand historical trends in land use, satellite maps of the area are compared in order to estimate the change over time. Through classification of different LU/LC (Land use, Land cover) classes, all the areas on the satellite images are assigned accordingly and one can therewith estimate the carbon stock (carbon density of LU/LC x surface area). Historical trends also allow to set the trajectory for the future, given the composition of the LU/LC's. Also, in order to gauge newly afforested areas, one will need comparable data with a baseline of non-intervention scenarios.				

(G) Tools?	Construction of income-expenditure profiles for 12 alternative interventions (forests, agricultural, etc.). This will be based on the gained knowledge of the Scolel Té pilot project. The predisposition for farmers to switch relies on various socio-economic, as well as on cultural factors. The overall function to estimate the cost of carbon is as follows: $Cc = C_I + Cm + C_O - Bp$ where Cc equals cost of carbon sequestration (Present value), C_I equals implementation cost, Cm represents cost of management and service (PV), C_O equals opportunity cost (PV) and Bp is the revenue from timber sale and labor savings (PV). 10% will be used for the discount rate; while additionally a sensitivity analysis will be run, ranging from 5% to 40%.
TWO	**Two** key questions
(H) What's New?	Forest management/conservation, restoration, as well as transforming existing land into new forests (afforestation) are interesting instruments in combatting increasing CO2 levels and contributing to decarbonize countries. While pilot projects have been undertaken, reliable data for large-scale projects are still scarce.
(I) So What?	The carbon market is currently in a broken state. Since it will have to be fixed on the long run, projects like carbon sequestration via forests will become increasingly interesting and have the potential to contribute to stabilizing CO_2 concentration. It is therefore of utmost importance to be able to properly gauge the projected capacities this method entails.
ONE	**One** bottom line
(J) Contribution?	This interdisciplinary marriage between biology, geography, sustainability and economics is leveraging previously identified findings (Scolel Té) in order to determine the potential of carbon sequestration via forestry. This large-scale project could be a beacon for future developments worldwide.
(K) 3 Key Findings	Since this project is a merger of various disciplines, collaboration is not only desired, it might prove to be pivotal to the outcome. In order to verify the assumptions and potential outcomes, a range of experts will be participating, ranging from economists, ecologists, biologists to agronomists. Economic model simulators will be required to determine the success rate of farmers switching cultivation methods. Currently, there are no potential threats when it comes to competing journal articles in this rather unique field. Although the idea of using forests as carbon sinks is prominent, it has not attracted a lot of attention recently. Therefore, we assess the risk as moderate.