

Report on the
Charrette Design Workshop
Applying Clean Tax Cuts to
Agriculture & Forestry

April 3, 2017

Arlington, Virginia

Hosted by:

Grace Richardson Fund

The Nature Conservancy

Climate Advisers

Rodale Institute

Note: This document compiles policy proposals from many sources for purposes of discussion. Inclusion here does not imply that any of the sponsoring organizations would ultimately endorse any specific proposition as public policy.

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Introduction

The Grace Richardson Fund, The Nature Conservancy, Climate Advisers, and the Rodale Institute co-hosted a full-day charrette (workshop) at The Nature Conservancy’s Worldwide Office in Arlington, Virginia on April 3, 2017 to explore the potential for applying Clean Tax Cuts to the U.S. agriculture and forestry sectors. A charrette is intended to be a design process, in this case to devise actionable ideas for tax reductions that incentivize positive environmental outcomes, and that can be proposed as concrete examples as Congress considers tax reform.

Clean Tax Cuts (CTC) is a supply-side idea being developed by the Grace Richardson Fund (GRF) in collaboration with many partners through a series of charrettes to address different sectors. “Clean” refers to tax policy reforms that reduce waste, inefficiency, and negative externalities that impact public health and the environment or that achieve direct and positive environmental outcomes. The tax policy mechanism is the adoption of simple tax rate cuts on capital investments or other taxes or the exclusion of certain income or expense items from being subject to tax. Cuts should not be confused with tax credits, which are effectively price support mechanisms that are self-limiting and do not allow for maximum capital flow to improved technology or practices. GRF proposes CTC as a more efficient financing mechanism that would help drive more investment into clean growth alternatives.

CTC is intended to provide a dynamic growth scenario: tax cuts can spur investment and growth, thereby partially compensating for their cost. Tax cuts also provide a positive feedback loop, and are not perceived as punitive (as a tax on negative externalities might be). The idea is to pick metrics, not winners and losers: This is important for many institutions and individuals across the political spectrum, including conservatives and business leaders, and may therefore be a way to achieve greater bipartisan support for environmental policies.

The land-based sectors present unique challenges for developing CTC ideas that are straightforward to measure and apply consistently. We assembled a group of experts from the U.S. agriculture and forestry sectors, including businesses and non-profits, who are working on improving environmental and sustainability practices in these areas. Their task was to identify what is “clean” for the purposes of CTC, what taxes are typically paid and could be reduced as a policy incentive, and what specific mechanisms might be devised to deliver a tax cut. The charrette resulted in a list of specific tax reduction ideas tied to specific practices as well as some areas for further exploration as described below. These concepts will be presented in several forums at Earth Day Texas (April 20–22, 2017) to get additional feedback from a broader

group of stakeholders, leading to what is intended to be an actionable list of opportunities for policy makers.

Opportunities, Barriers, and Findings

The workshop attendees identified significant existing opportunities and drivers for the land-based sectors to provide carbon reductions and other healthy environmental outcomes. These drivers create a positive enabling environment that can be reinforced through complementary tax cuts.

- On the demand-side, many companies have made zero-deforestation commitments to enhance their stock market reputation, avoid divestment concerns, and improve banking financing reputation risks.
 - According to CDP, \$900 billion in revenue from just 187 companies analyzed is at risk through its links to deforestation. In fact, ~24% of revenues for these companies are from deforestation-linked commodities.
 - According to Chain Reaction Research, some companies have already lost earnings due to sustainability violations, and assets may in some cases be stranded due to the deforestation risks associated with them.
- Forestry and agriculture are a large part of the solution to climate change and other environmental problems.
 - The 2013 report by the Intergovernmental Panel on Climate Change found that an additional approximately 5 GtCO₂ could be sequestered (through avoided deforestation or reforestation) each year at a cost of approximately \$50 per metric ton.
 - The National Academy of Science looked at scalable technologies for climate change and concluded that forestry is the most scalable, deployable technology. If forestry were brought on scale around world, it would reduce 5.5 gigatons of CO₂ emissions, or 10% of the GHG solution.
- Major retail companies are demanding certified and sustainable products from their suppliers. Millennials are more values-driven and helping to move the market as well.
- Health issues provide another driver for more sustainable solutions in both agriculture and forestry and create an opportunity for risk mitigation and taking a positive public health angle on the environment. Relevant health issues might include:
 - Pesticide application on crops.
 - Use of antibiotics in livestock.
 - Air quality issues caused by forest fires (over 100,000 people died from increased particulate matter during the recent Indonesian fires.)
 - Improved nutrient management to reduce water quality degradation.

Despite the positive momentum, charrette participants identified several challenges to implementing the CTC idea, though none seemed insurmountable. Perhaps the largest barrier to taking a tax-based approach is that farmers and forest owners typically do not have a lot of taxable income. This can potentially be addressed by finding other points of leverage—with lenders, insurance companies, suppliers—that are engaging in economic activity with farmers. It would be possible to reduce rates for lenders or suppliers if they are supporting sustainable

agriculture or forestry operations. Savings would be passed along to landowners, and banks would encourage farmers to introduce more sustainable techniques to take advantage of the reduced rates.

In addition, farmer's and forestland owners often have significant amount of their capital tied up in their land assets—these are the 'land rich-cash poor' landowners. The CTC approach could be used to allow more of the capital asset value to be realized by such landowners at the same time that positive environmental outcomes could be achieved.

A further obstacle is that 50% of all agricultural lands are leased. A farmer's ability to make changes on the land is very different if she's leasing, and investments may not be cost-effective. In this case, it may be necessary to make Leasing income tax advantaged for owner, so that those savings could be passed down. Getting benefits down to the ground will be critical.

Similarly, most family forest owners have inherited their land and don't have regular income because they don't harvest on an annual basis, but only every 20–30 years during harvesting. However, they do have annual expenses such as property taxes. It will be important to build a reward system around these realities.

Another significant barrier is the difficulty of measuring precise outcomes in complex biological systems. Benefits like increasing soil carbon or nutrient retention can be quickly undone in a season; tax cuts must therefore be tailored to encourage ongoing or repeated actions to ensure that environmental benefits are longstanding. Charrette participants focused on defining clear interventions and metrics that could be applied on a "no regrets" basis, but this remains an area for further study.

What does "clean" mean in the agriculture and forestry sectors?

A key need identified by workshop participants is to precisely define the activities that would be eligible for tax cuts. "Clean" benefits can be seen through the lens of climate/carbon, biodiversity/water, health, or some combination of these. Given the challenges of measuring precise impacts in dynamic ecological systems, finding solutions that will always (or nearly-always) provide positive environmental outcomes without incurring complex verification costs is critical to ensure environmental robustness and economic fairness of resulting tax policy. Several certification processes or best practice policy tools can provide guidance in this regard.

Existing certification/standards

For forestry, three established forest certification systems currently operate in the US, certifying approximately 100 million acres (of 765 million total US forest acres): The Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI), and the American Tree Farm System (ATFS). These are mostly applied to large industrial forest lands, although ATFS is more focused on small family forests. However, certification holders don't necessarily reward landowners for their involvement in the certification scheme; the value of certification lies in increasing buyers' access to markets.

Agriculture also has multiple development platforms for standards and schemes that could be used to define clean or sustainable, although there is less consistency among them than among forestry certifications, and they have even less consumer recognition. Several charrette participants noted the diversity of the agricultural space as a challenge to using specific standards; food companies, agribusiness, and growers each have their own ideas and metrics for sustainability. At the grower level, farmers are wary of any kind of oversight or audit (e.g., the Roundtable on Responsible Soy was not adopted in the U.S. because of farmer opposition to financial audits), and are sometimes reluctant to provide information. Participants differed on whether certification for tax cut purposes would need audits or some sort of the third-party verification; many felt that IRS leverage on compliance was sufficient.

Some initiatives that experts felt were a good starting point to identify “clean” objectives and metrics for CTC:

- The Fieldprint Calculator, from the Farm to Market initiative: Field to Market is the largest sustainable agriculture initiative in the US, and nothing has moved sustainability more than buyers saying they want their suppliers to apply it. It includes a basket of important metrics that span impacts: soil organic matter, nitrogen (which gets at both GHG and water), methane, antibiotic use. A challenge has been that farmers don’t always have time to collect/input the data, but the Calculator now has an API to allow for automated uploading.
- ANSI standard (Leo 4000): This standard has a Gold- Silver- Bronze level point system to designate various degrees of compliance.
- Existing USDA regulations, which have the advantage of an existing mechanism to disseminate to farmers through the Farm Service Administration.
- USDA Organic Certification: While organic is not the same as sustainable, it has the advantage of being a recognized and certified standard that can engage a wider public through the health entry point.

While there is no universal agreement on sustainability standards for agriculture, water quality and carbon have the most commonality among the above initiatives and seem to be prime candidates for a “clean” metric. Other low-hanging fruit would be reducing fertilizer use through precision agriculture techniques (it was noted that half of GHG emissions in agriculture result from the over-application of fertilizer), and the use of cover crops to reduce nitrogen use and run-off.

As with forestry certification, the financial rewards for implementing agriculture standards don’t always make it down to the grower. Farmers will disengage when they bear the cost of these techniques but don’t get rewarded. Aside from tax cuts, participants noted the value for reduced rate loans for sustainable farmers (farms tend to be highly leveraged). Only seven banks in the US finance agriculture, so such a policy would be relatively easy to implement.

Keeping forests as forests, and farms as farms

Workshop participants advised that going straight to certification systems as the primary metric for sustainability skipped perhaps the biggest opportunity for CTC: conservation of existing forests and farms. Keeping forests as forests is already a green strategy, and avoiding conversion

of agricultural land can help meet climate and other environmental challenges. The main threat to sustainable land uses is from habitat fragmentation caused by development making farming and forestry less profitable. Therefore, rewarding capital invested in sustaining land used as forests and farms should be the starting point for CTC. Strategies such as providing tax-advantaged additional income and investment opportunities for farmers (such as renewable energy generation), or access to water markets for forest owners (working forest land has been shown to optimize for water quality) or allow the owner to keep the entire (otherwise taxable) gain from the sale of an easement that keeps land in agriculture or forest use might be suitable market-based mechanisms to keep these farming and forest operations viable.

Another mechanism to preserve and increase forest land is to increase demand for sustainable forest products—the “bio-economy.” This would raise incomes (for all foresters, but ideally at a premium for certified forests), encourage replanting and support reforestation initiatives, and result in forest carbon sequestration. The housing and construction industries are the major drivers of wood use, and encouraging the use of green certified timber products in housing and high rise buildings (which has been shown to be sustainable, cost-effective and safer than alternatives) would support greater demand and therefore the conservation and expansion of forest land in the US.

Summary of “clean” goals and metrics

The charrette participants landed on the following short list of items that could be defined as clean for CTC purposes, as well as have suitable metrics available or that could be developed:

1. Good nutrient management/Use of precision agriculture
 - a. Metric: Reduction of nitrogen (need threshold)
 - b. Metric: Percentage of time land is covered (which has the advantage of being verifiable by remote-sensing)
2. Organic Certification transition incentive. It’s difficult and expensive to transition from conventional to organic production, so tax cuts could assist with that transition
 - a. Metric: Organic transitional label
 - b. Metric: Achievement of organic label
3. Regeneration of resources (replanting forests)
 - a. Metric: forest cover (acres planted)
4. Water use or interaction and quality: Creating access to water markets so that benefit translates back to landowner (e.g. water swaps in Arkansas that conserved groundwater and earned income for farmers)
 - a. Metric: water availability/quality
 - b. Metric: watershed extent forested
5. Carbon sequestration
 - a. Metric: Forest cover/replanting (acres)
 - b. Metric: soil organic matter/carbon

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6. Reduce antibiotic use in livestock
 - a. Metric: Pounds of antibiotics used
7. Prevention of conversion or habitat fragmentation of existing production forests and farms to less sustainable uses.
 - a. Metric: location of contiguous forest and farm acreage
8. Increase percentage of forest land under certification by increasing demand for certified forest products, particularly solid wood.
 - a. Metric: forest area certified
 - b. Metric: total forest area
9. Incentivize resilience through combined agro-forestry systems. Studies have shown that the most resilient systems combine livestock, cropping and forestry, but these systems are challenging to implement. They tend to become more profitable over time because of the built-in resiliency.
 - a. Metric: Not defined.

Promising proposals and applications

Rod Richardson suggested some agriculture and forestry tax cut options derived from previously held charrettes for other sectors:

- The commercial real estate charrette came up with proposals to take the GOP Better Way Tax Plan and transpose it onto sustainability upgrades for that sector. This included immediate expensing of all kinds of farm and forest investments, including immediate expensing for efficiency investments, which could be assignable and tradeable to building architects, owners, tenants, or whomever is responsible and/or other third parties. The idea of creating “immediate expensing” that is the tax benefit from sustainable land and forestry based investments could be immediately realized. The idea behind ‘tradeable and assignable’ is that the tax benefit value from such investments could be converted into a cash payment to the farm or forest land owner from third party taxpayers who would be able to reduce their own taxes with this ‘tradable and assignable’ sustainable investment. Thus, the farmer or forest land owner could immediately expense and trade sustainable-linked outcomes to buyers. This approach is similar to Virginia’s (and several other states’) conservation easements tax credit program which incentivizes a landowner to donate a conservation easement by providing the landowner with a state tax credit and the ability to sell that state tax benefit arising from the donation to third party tax payers.
- Building on the green bond charrette, forestry bonds could become a bigger part of the green bond market if they were made triple-tax exempt. Green bonds for forestry can currently only be used for land acquisition, but if they could be applied to management improvements, they might be more widely adopted. It may also be possible to bundle and sell farm and forest mortgages as green bonds, for which the underlying assets meet

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sustainability criteria. The green bond idea can be particularly powerful by both increasing the supply of capital, but which also increase demand for the outputs (in this case, sustainability) by lowering their price. As the Green Bond charrette suggested, by creating a class of securities halfway between corporate and muni bonds (i.e. tax free bonds with a higher interest rate than muni-bonds) would have broad appeal to people who want to make money (e.g. pension funds) but don't necessarily care about environment.

Proposals discussed at the charrette which the participants felt merited further exploration and support included:

1. To provide farm and forest landowners who are often 'cash poor land rich' landowners with more capital on an after-tax basis and to address the CTC problem of preventing further habitat fragmentation, the Federal tax code could be amended to provide that landowners who sell land and/or easements for conservation purposes, should be entitled to exclude the entire capital gain from the sale from being subject to tax. The current Federal tax code provides for deductions for gifts of easements but in many cases, farm and forest landowners need cash payments to secure the capital value of their land asset. This proposal would enable landowners to realize the full capital value from their land at the same time that CTC goals are achieved.
2. Another proposal deserving of support involves the GOP Better Way Tax Plan which includes a proposal to repeal the current income tax deduction for state and local tax payments that is available to individual taxpayers. The tax deduction for property taxes on forested lands should be retained as an incentive to keep forests in forests consistent with CTC goals. Property taxes are the largest cost that forest landowners face on an annual basis so this proposal could be a meaningful incentive to prevent habitat fragmentation and to achieve CTC goals.
3. Tax cuts could be provided for developers who use certified wood products thereby creating demand for forest-certified products over other sources of wood products and thus providing support for the conservation of forests. A variation of this proposal would be to provide homeowners with tax reduction for a lower mortgage rate where the homeowner uses certified wood products for home remodeling or reconstruction projects.
4. A current carbon tax credit for geological sequestration at \$23/metric ton [8933 (hybrid credits /cuts)] could be expanded to cover biological sequestration. It could also be made tradable and transferable to any taxpayer so they could cut their taxes. This would allow for greater market participation.
5. CTC could propose to allow for a 50% tax rate cut (following the GOP Better Way tax plan) on otherwise taxable income derived from loans, insurance and property, plant and equipment (PPE) revenues for companies servicing farming and forestry lands that are used sustainably and/or provide for a 50% tax rate cut on sales by consumer goods companies of "certified" sustainable products.

6. To secure investments in qualifying green or sustainable infrastructure, the tax code could authorize green bonds which would provide tax credits to bond investors where the proceeds from bond investments were made in sustainable lands, farms and forestry. The definition of 'green infrastructure' could be developed to reflect 'clean tax cut' principles and could be included in a proposed infrastructure program being considered by the current Administration. This proposal could be modeled on the current New Markets Tax Credit program (which will need to be re-authorized) and which provides an income tax credit to investors in job-producing projects that are in specified poverty areas around the country.
7. Enhanced tax advantages could be provided for 'on-farm' renewable energy production (solar, wind, bioenergy) to support farm incomes and farm conservation. This could be stacked on top of organic or other certifications (but without double-counting). Tax reductions on renewables could also benefit from green bond proposals and reduced rates on loan interest.
8. CTC could propose tax cuts as an incentive for an organic transition. Crop insurance companies could get a tax cut for providing crop insurance to transitional farms at heavily discounted rate. (Note there is an existing conservation compliance rule associated with crop insurance in the Farm Bill that needs to be protected. It establishes conservation performance requirements to get insurance subsidy and provides Environmental Quality Incentive Program (EQIP) funds linked to help farmers comply.)
9. The CTC agenda could incentivize forest replanting and restoration by creating forestry income tax reduction (or possibly a tax exclusion) on harvested timber (which currently is subject to regular capital gains tax treatment).

Many of the above tax incentive proposals could be combined and landowners could obtain preferential tax reductions through several mechanisms (without conflicting with one another.) Multiple mechanisms may in fact be necessary to ensure that landowners receive a sufficient financial incentive to motivate a change in landowner behavior, given that many tax advantages will be indirect (accruing first to suppliers, lenders, insurers, etc. before benefitting landowners directly).

Areas for further study

While nearly all the above proposals would benefit from additional analysis and detailed modeling, charrette participants identified a few specific areas of interest for further research:

- Metrics and data collection for clean objectives: While the workshop tried to select objectives that would be easy to measure, it will still be important to define exact thresholds for what is and is not subject to favorable tax treatment. Addressing data availability to ensure the robustness of the tax-advantaged interventions will also be necessary. Field to Market provides a good system for collecting data; there may be others. In forestry, support

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for the Forest Inventory Analysis will be crucial to assess success. Development of specific metrics/incentives for combined agro-forestry would be valuable.

- Forestry certification systems work, but landowners need to get credit for what they're doing. A supply chain metric that gets value down to landowner is necessary. A tax incentive can't be constructed in a way that impacts only the times trees are harvested, since many foresters only do that once in their lifetimes.
- Charrette participants were unclear how to deal with livestock. Methane from livestock is a major source of emissions, and some have argued that grass fed cattle produce more methane (pitting health interests against climate). This can be abated by keeping cows in buildings and capturing the methane. Given these conflicting objectives, what is a suitable CTC objective on livestock?

Appendix I: List of Participants

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Appendix 2: GRF CTC White Paper (March 24, 2017)

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