General process for developing a forest carbon project – voluntary market

Forest carbon offset projects are open to private, industrial, tribal, and public landowners. To begin a forest carbon project, typically the landowner needs to contract with a private carbon project developer. The project developer will work with the landowner to oversee, develop, broker, and market the carbon project, for a fee, typically as a percent of sales proceeds. For a list of current forest carbon developers, refer to the table at the end of this document. Developers may enroll projects in one or more carbon registries but are independent from the registries.

The developer will determine if the land is eligible for enrollment under a carbon registry protocol and financially feasible to proceed. Often this process is free, or has a nominal fee, and does not require a commitment. For the assessment, the developer will need information on the characteristics of the forest parcel, like forest type, size, and stocking. Forest parcels do not have to be contiguous to be enrolled but do require a single landowner unless project aggregation is pursued (see more details under *Forest carbon options for small forests* below). The landowner will need to provide the developer with information on any legal constraints on the parcel, like easements, planned management, and parcel operability that may limit harvesting. With satellite data, this assessment may be able to occur without collecting new data. Having a current active management plan can facilitate this process. If the project is eligible and financially feasible, the official project development stage begins.

For most programs, the developer will conduct a sample inventory of living and dead trees to quantify carbon stocks. To compute the potential offsets generated from the project, the developer will use the inventory data to model average carbon stocks over time under the baseline scenario and the project's scenario. For improved forest management (IFM) projects under the American Carbon Registry (ACR), one of the commonly used protocols in the northeast computes the baseline carbon stocks using the legally acceptable harvest that could occur, per the forest and landowner type, to maximize near term revenue. The project scenario must retain more carbon on-site compared to the baseline, but that can be achieved with a variety of silvicultural strategies, like extended rotations (harvest intervals), higher retention of trees, and/or lower removals (Figure 16). The difference between the carbon stocks in the project scenario and the baseline is the additionality and the basis for the number of offsets generated. IFM projects require a forest management plan that will describe the silvicultural prescriptions that will be implemented to achieve higher carbon stocks compared to the baseline.

Note: The content of this publication draws heavily on several similar publications produced by the Vermont Department of Forests, Parks and Recreation.

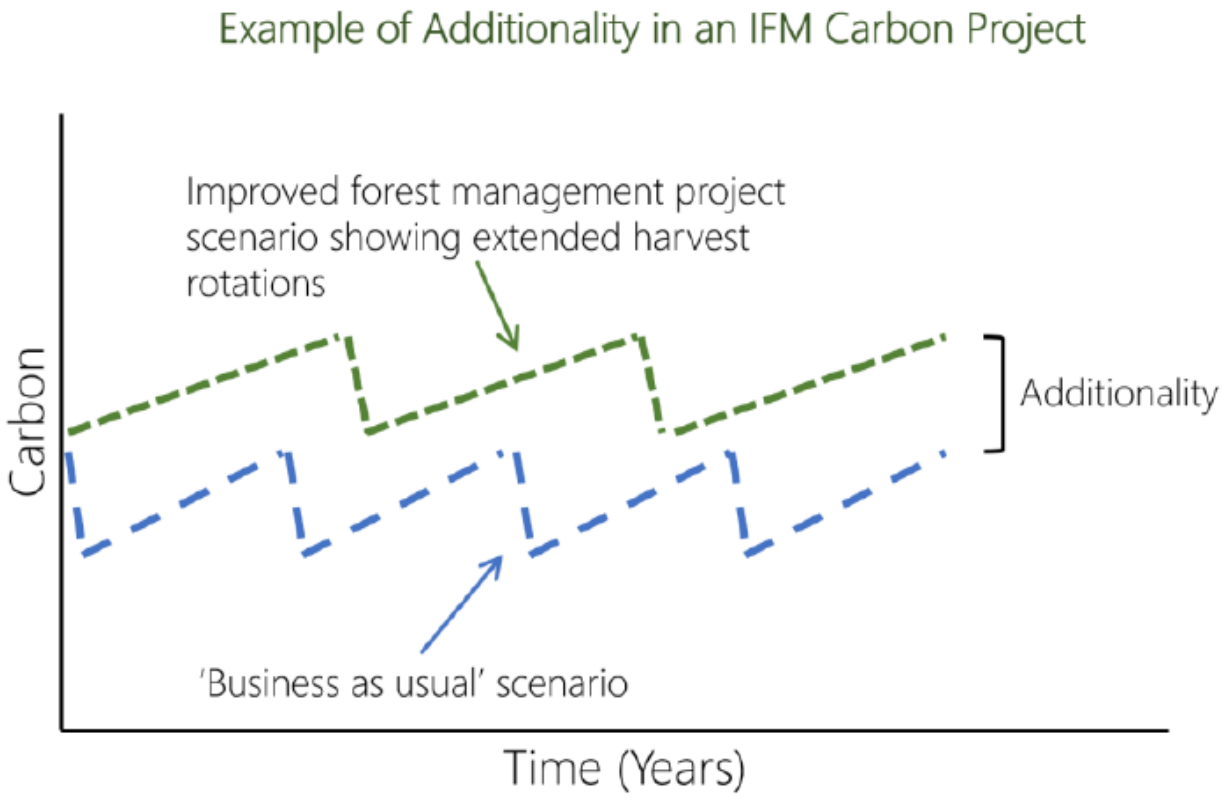

Figure 1

Projects generally must also include deductions for leakage. If the project will harvest fewer wood products compared to the baseline scenario, the project could result in increased timber harvesting somewhere else to meet wood market demands. Leakage is deducted from the number of offsets generated based on the amount of reduction in harvested wood products compared to the baseline. Projects usually must also compute the risk of unintentional reversal that could occur from a natural disturbance like an ice storm, insect outbreak, or fire. Projects must contribute a proportion of offsets generated to a buffer pool (like contingency funds) based on the project-specific risk of reversal. These calculations and assumptions must be reviewed and verified by an independent third-party organization, which is arranged by the project developer.

Once the project has been successfully verified, the registry gives each metric ton of emissions reduction a unique serial number and the offset can then be sold. Once purchased, the offset is retired. Forest carbon stocks must be periodically re-measured and verified.

A possible forest carbon project development scenario is found below (Figure 17[1]).

[1] While this scenario generally describes a larger-scale forest carbon project, it helps to inform projects for smaller landowners although some programs specifically for smaller landowners may have different scenarios.

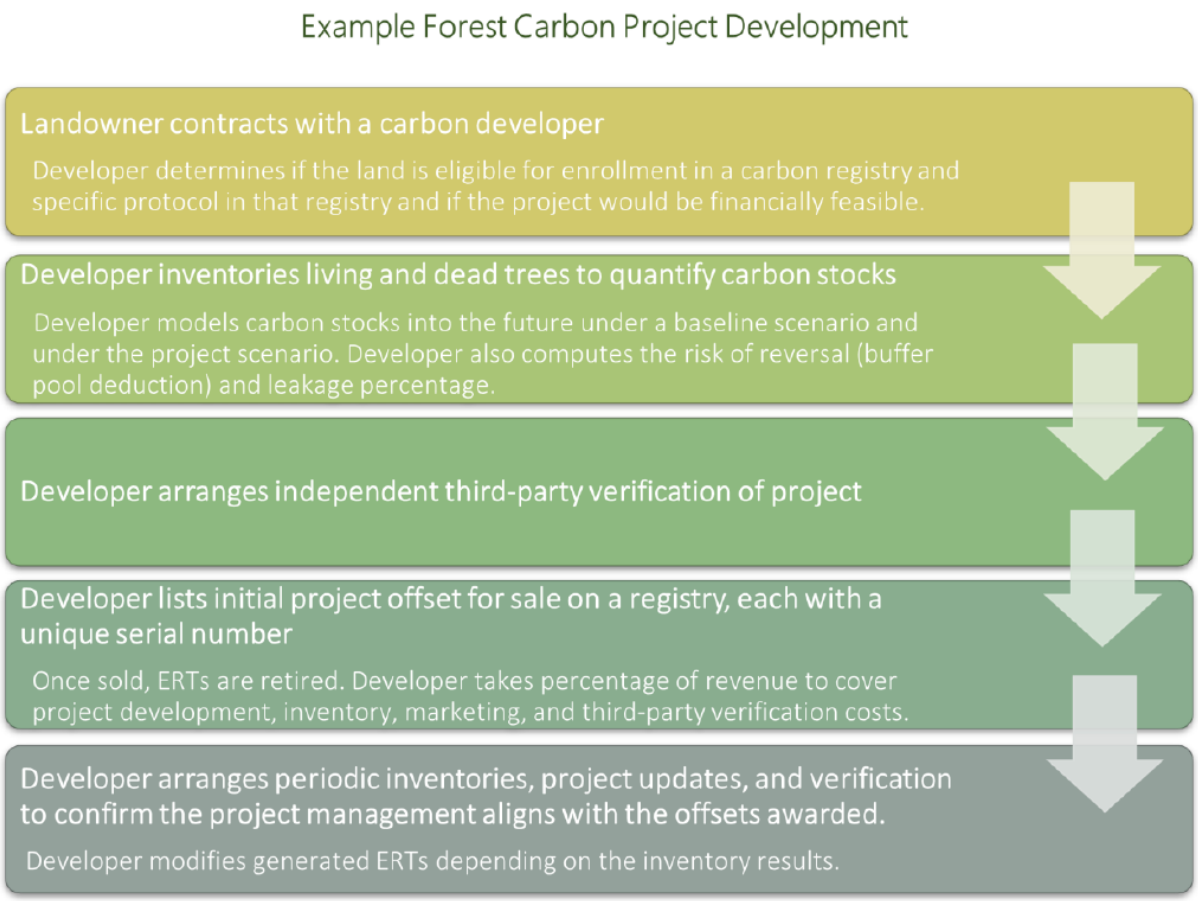

Figure 2

Note that this process can vary depending on the registry, project type, and protocol used; further, newly developed programs for smaller forest parcels that aim to reduce the cost of project development will differ.

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