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## Informing the CFLRP: Lessons Learned from New Mexico's Collaborative Forest Restoration Program


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Forest restoration in the southwest US and elsewhere has been receiving increased attention, due to climate change, changing land use practices, increasing populations in the wildland-urban interface and the historical mismanagement of some forests, as evidenced, in part, by the unusual number and severity of devastating fires in recent years. The Collaborative Forest Restoration Program (CFRP) was initiated in 2001 by the USDA Forest Service (USFS) as "a new approach to building agreement among people and organizations that care about New Mexico's forest land," by awarding grants that "restore forests on public and tribal lands and improve the use of small diameter trees thinned from those lands" (USFS 2001). Important program objectives also include reducing the threat of catastrophic wildfire on the stand or forest level and creating local employment and training opportunities.

Additionally, the Collaborative Forest Landscape Restoration Program (CFLRP), a federally-funded, nationwide, landscape-scale program, was established in 2009 "to encourage the collaborative, science-based ecosystem restoration of priority landscapes" (USFS 2009). While their purposes are articulated differently—with CFRP perhaps more explicit in its commitment to grass roots participation and equality of knowledge among all participants—ultimately, on the ground, the CFRP and CFLRP aim to accomplish similar objectives, albeit at different spatial scales. Given the experiences of the CFRP over the past twelve years, there are lessons from that program that could inform CFLRP, especially in the following critical areas: collaboration and equity of knowledge; project consistency, connectivity, and maintenance; and socio-economic monitoring.

The "Collaboration" in CFRP can be both its greatest strength and, at times, its biggest challenge. The idea of equality of knowledge among all CFRP participants, irrespective of background or experience, while perhaps laudable conceptually, can lead to the dilution of efforts to collect, analyze, and draw meaningful inferences from reliable data. Unfortunately, CFRP grantees, often more interested in completing a project and collecting grant funding than applying even the most fundamental rigor necessary to help the program answer questions related to, for example, treatment effectiveness and maintenance cycles, will sometimes take the easy way out when it comes to monitoring. The multi-party monitoring process is sometimes viewed by grantees as simply a checklist item to be signed off on and there is often little follow through by grantees in developing true multi-party monitoring plans.

Consistent with assertions by Force and Machlis (1997), implementing a system of social indicators, for example, often requires specific skills and knowledge. Complicating the issue is the "paradox of public involvement" discussed by Walker and Daniels (2001) and referenced by Egan and Estrada (2013) as it relates to forest restoration, which posits that, while citizens may want the best available science to inform management decisions, they also want to have input into decision-making processes. However, as

resource management and landscape restoration decisions and processes become more complex, few citizens have the scientific background and expertise to contribute or provide relevant criticism (Walker and Daniels 2001).

Unfortunately, the assumption of equity of knowledge among stakeholders can have devastating outcomes. Among the lessons learned from the 2010 Track Fire near Raton, NM, for example, was that pre-fire thinning was likely not aggressive enough, in part because there were those at the table who wanted to thin in a way that is consistent with the science, and those who didn't want any trees cut. As a result, a process of compromise among diverse stakeholders led to fuel reduction practices that were outside of the range of residual stand stocking for effective fuels reduction (S. Berry, City of Raton Engineer, pers. comm.), with devastating results, including the temporary loss of the city's main reservoir, Lake Maloya, due to excessive sedimentation from post-fire rains. When the city of Raton engineer was later asked what, in retrospect, he might have done differently, he responded "cut more trees."

Virtually all efforts to restore forests and reduce hazardous fuels will require a long-term plan of successive interventions that accounts for treatment maintenance cycles, evolving science, and changing public values and land uses, including an expanding wildland-urban interface. This is likely to occur sustainably only with the development of a healthy forestry sector that will enable these treatments to occur in the long-term and in the face of contracting public subsidies for forest restoration and hazardous fuel reduction (Egan 2012). Mechanical fuel reduction treatments, conducted on a rhythm consistent with a treatment's maintenance cycle, can also result in certain desired conditions, with the added benefit of providing a more sustainable supply of wood products to local forest products businesses. In addition, since CFRP provides funding at the project, rather than landscape, level, hazardous fuels reduction treatments are sometimes isolated, calling into question their potential effectiveness in reducing the impacts of large-scale wildfires. But all of this requires a plan, and funding, that looks beyond the duration of the initial treatments—not necessarily strengths of programs such as CFRP and CFLRP that rely on a relatively high level of year to year funding uncertainty.

Given the diverse goals and objectives of forest restoration programs and projects, monitoring the socio-economic outcomes of these efforts can be complex to understand and measure. Past work has been conducted to develop socio-economic indicators for forest restoration efforts (Estrada et al. 2009; Egan and Estrada 2013). The process of indicator development will continue to evolve as the forest restoration community develops keener interest and expertise in this important dimension of restoration. However, among the challenges associated with understanding the socio-economic outcomes of forest restoration have been a lack of consistency in identifying core socio-economic indicators across projects and how they may be measured; a paucity of systematic and objective approaches to indicator development; the challenge of achieving consensus among diverse stakeholders; and uneven efforts to solicit the opinions of forest restoration stakeholders on the most appropriate indicators and protocols.

In order to avoid tensions that may arise over the degree of scientific rigor required to achieve monitoring objectives, it is important for program administrators and grantees to understand that an effective evaluation of socio-economic project outcomes often requires specific expertise in social science methods, while also recognizing that there may be some indicators that demand less sophistication and rigor than others. This has been generally lacking for CFRP projects. Surveys, focus groups and key informant interviews are specific social science methods that require background, training, and preparation to be implemented well. Unfortunately, it is too often assumed that social science is easy science and that *interest* in the socio-economic dimensions of forest restoration necessarily equates to *expertise*. Perhaps the important question to resolve is whether the methods and the level of expertise of the monitoring team match the objectives.

Monitoring practitioners are encouraged to consider important regional, cultural and other project-specific characteristics before deciding on which socio-economic indicators to measure for a given forest restoration project, irrespective of the rating derived for those indicators. As with any attempt to understand something as potentially complex as socio-economic indicators for the vast array of forest restoration projects and project objectives, this should be a continuing and inclusive process.

Finally, given the potential sensitivity of information that could be derived from some socio-economic assessments, including that related to restoration business costs, revenues, and markets, for example, it is critical that the information and those who provide it are afforded adequate protections—another challenge plaguing community-based multi-party monitoring associated with some programs (Egan and Estrada 2013) that could compromise restoration businesses and raise potential program liability issues. Based on an inspection of CFRP project proposals, virtually no CFRP-funded project accounts for this; setting up the CFRP and its grantees for potential acrimony, even lawsuits, when information that may compromise the competitiveness of a restoration business is treated without sufficient care.

Much funding—and hope—is being invested in the CFLRP. It is not just about restoring healthy forested landscapes, but also about reinvigorating local, rural economies and reducing the threat of catastrophic wildfire and its ecological, economic, and social consequences. Experiences with New Mexico's CFRP have shown us that, for the ultimate success of the program, it is critical that CFLRP account for issues such as the paradox of public

involvement and equity of knowledge; consistency among methodologies; and exercising care with socio-economic monitoring. Ignoring the lessons learned from New Mexico's CFRP, and perhaps other restoration programs, would appear to be a missed opportunity for CFLRP, with one likely result being a repeat of the challenges faced by these programs. But given the significant increases in CFLRP projects' spatial scales, funding, and public expectations, ignorance of these issues is likely on a much grander scale and with potentially more far reaching consequences.

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