How to Kickstart a Restoration Economy in Western Communities around Public Lands

by Bryan Leonard

Context:

The federal government owns and manages approximately half of the land in the eleven Western states. The industries that occur on federal public land—including livestock grazing, timber harvest, oil and gas development, hard rock mining, and recreation—impact adjacent communities by employing residents and boosting demand for a variety of goods and services. Public land also supports the provision of crucial public goods such as wildlife habitat, healthy watersheds, and unique landscapes, which are both local and more distant populations value. These two uses can and do coexist in many places, but historical policies favoring intensive extraction have also created the need for significant restoration investment to ensure the provision of both types of benefits into the future.

Conclusions:

Restoration work on both private and public land is "boots on the ground" work that requires significant labor input as well as specialized capital or equipment typically used by foresters, ranchers, and farmers. This work may require some landscape-level hydrological or ecological planning to guide its implementation, but much of the actual work requires skills and knowledge more akin agriculture. Restoration contractors could form the backbone of a new additional economic engine in rural communities, but uncertainty about the amount and durability of funding prevents such contractors from specializing in restoration.

Implications:

Policymakers can help craft reforms that could foster investments in the labor force and capital stock that would undergird a restoration economy. Annual budget fluctuations and large swings in policy across administrations prevent this. Engaging in large, landscape-level restoration planning could help address this somewhat by giving potential suppliers a better sense of the scope and queue of work that could be completed over a longer time horizon, making them more willing to invest. Creating mechanisms for existing resource users to engage in and benefit from restoration projects could also help bolster a restoration economy.

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Background

Federal land management is a critical driver of economic growth or decline for many rural communities in the eleven Western states, where the federal government owns and manages approximately half of the land and even more of the mineral estate. Federal public lands host a variety of industries that directly impact adjacent communities including livestock grazing, timber harvest, oil and gas development, hard rock mining, and recreation. In addition, these lands support the provision of crucial public goods such as wildlife habitat, functioning watersheds, and unique landscapes.

Conservation-oriented uses of public lands have become more valuable in recent decades due to scientific advances in our understanding of the ecosystem services generated by healthy landscapes, as well as general shifts in individual attitudes toward the environment. Although governments, NGOs, and business interests are increasingly willing to pay to support conservation-oriented uses, most investment in these projects has thus far been concentrated on private lands, where there are direct, financial or in-kind benefits for participating landowners. If current trends continue and conservation and restoration become a larger share of the activities taking place on public land, it would make sense to structure them such that local communities similarly benefit.

The new restoration economy

An exhaustive review of the various restoration needs across public land is beyond the scope of this brief, but it is useful to summarize the typical nature of the work to help characterize how it might feed into local economies throughout the region. Whether the goal is to conserve or generate sage grouse habitat, reduce fire risk, improve watershed resilience, or reclaim abandoned mines, much of the work of the new restoration economy amounts to either i) removing unnatural disturbances, such as mine tailings, invasive species, fences, and fuel loads, or ii) regenerating or mimicking ecological function, for example installing beaver dam analogs, replanting riparian vegetation, and restoring stream banks. The scope for natural solutions compared to more synthetic or engineered approaches varies by the extent of the degradation, the degree of ongoing competing uses, the substitutability of natural and artificial mechanisms, and more.

No matter the specific project, the work of restoration involves "boots on the ground" manipulation of disturbed landscapes to bring them back to something resembling their functional natural state. Hence, restoration work is quite labor intensive and can also be quite capital intensive. These labor and capital resources may be specialized to varying degrees. Some tasks—such as marking fences to prevent sage grouse collisions—require little skill and no capital. Others—like mechanical thinning–require specific skills and heavy machinery.

Historically, off-season fire crews, who already have experience with intensive natural resource work, have performed a lot of restoration work. However, as fire seasons have grown longer and longer, this has become a less available workforce. Many traditional users of public lands, on the other hand, maintain staff that have the requisite skills as part of their ongoing operations, making restoration work a valuable future employment option if needed.

Companies engaged in oil and gas development and hard rock mining, for example, often have the means and the know-how to engage in restoration work, and sometimes do so as part of compensatory mitigation or other permitting requirements. The skills and capital necessary to complete many restoration projects are also not dissimilar from those used in agriculture. As many private working lands face mounting development pressure and the prospect of transitioning to more amenity-focused uses, there may be an opportunity for the next generation—who often appear less inclined to pursue traditional agriculture—to take on restoration work.

In addition to providing a potential outlet for workforces facing challenging market conditions, the restoration economy has the potential to provide broader benefits to western communities by boosting demand for equipment and other inputs in the short run, and by enhancing the provision of valuable ecosystem services—such as water quality, improved forage, and fire risk reduction—in the long run. Restoring degrading landscapes could also help bolster tourism for some communities. Ultimately, the success of the restoration economy hinges on its ability to meaningfully benefit existing users of the landscape.

Incentives to engage in restoration

There are at least three broad ways in which resource users could benefit from restoration projects and therefore might be incentivized to pursue them within the context of their rights, leases, and permits. First, many restoration projects could provide co-benefits to the resource user. Second, there may be direct financial payments from environmental groups who are willing to pay for enhanced ecosystem services, as they do in burgeoning ecosystem service markets on private land throughout the world. Third, engaging in restoration may allow permit and leaseholder to generate valuable credits for participation in other environmental markets.

Co-Benefits

Often, restoration actions may benefit existing users in addition to supporting broader public goods. For instance, restoration projects to reduce wildfire fuels benefit all resource uses by reducing the risk of a catastrophic fire that could destroy valuable forage or equipment. Permit holders could also earn protection against certain losses or liabilities in exchange for supporting restoration work, similar to Candidate Conservation Agreements with Assurances under the Endangered Species Act. For example, an oil developer or rancher could agree to pursue restoration projects in exchange for a guarantee that their rights to operate will be secure.

Direct Payments

As the robust growth of payment for ecosystem services markets has demonstrated, many private parties and conservation groups are willing to make direct payments to landowners to incentivize conservation. In principle, there is no reason why such groups couldn't make similar arrangements with operators of federal leases and permits. These direct payments from outside users could incentivize existing resource users to engage in restoration within the scope of their permit or lease.

Offsets and Credits

Finally, engaging in restoration work may allow resource users to generate valuable credits or offsets to sell into outside markets. Unlike direct payments, where a group often cares about the specific location of restoration, these markets value restoration in a more aggregate sense, as a means to offset development that occurs elsewhere. Offset and credit markets are somewhat similar to compensatory mitigation programs, but the potential reach is much broader because credits are available for purchase on an open market, as opposed to a case-by-case basis negotiated with individual developers. Ranchers, timber harvesters, and mineral developers could potentially generate credits for sale into carbon, habitat, and wetland markets by engaging in restoration projects associated with their permits and leases, but only if rules are amended to ensure the longevity of such investments.

What is required to realize these benefits?

Ultimately, the growth of a restoration economy will require investment to develop and maintain skilled laborers and specialized capital suited to the work. However, there are limited incentives to make these investments under the current system. While there are millions of dollars being spent on restoration projects throughout the American West, the federal funding behind many of these projects is highly uncertain.

Potential restoration contractors face several sources of uncertainty. One major issue is that policy priorities can change dramatically from one presidential administration to another. Four years is likely an insufficient planning horizon to convert workers from existing workforces, attract new labor, and accumulate specialized capital, especially for new-entrant small businesses. Even within a presidential administration, congressional appropriations can vary significantly from year to year. Simply put, there is not a stable source of demand for potential suppliers. This uncertainty is exacerbated by the fact that many restoration projects take place on an ad-hoc basis when funding is made available and do not fit clearly into a long-run or landscape-scale plan for restoration. Unfortunately, this can often mean that completing restoration projects is challenging even when funding is available. Solving this chicken-and-egg problem will require greater certainty to incentivize the growth of new firms in this space.

A shift toward more integrated, landscape-level planning could help provide greater certainty for potential investors and contractors. While funding levels may fluctuate from year to year as political winds change and other budget priorities come and go, the existence of a clear, large-scale plan for restoration work would give suppliers a sense of the potential scope and queue of projects that they could expect to work on over a multi-year period.

In the absence of integrated federal planning efforts, providing more certainty to private investors like NGOs and large private donors could help support the growth of restoration contractors. For example, the restoration and mitigation leases created by the BLM's recent 2024 Conservation and Landscape Health Rule, known as the Public Lands Rule, would afford restoration investments legal protections that

have previously been reserved for historical uses like ranching and mining. Extending greater certainty to restoration projects could open the door to private investors, who could pursue incremental progress, one lease at a time, as part of longer-term conservation strategies in lieu of major federal actions.

Indeed, bringing non-federal money to the table to support integrated conservation and restoration plans is crucial for the restoration of the sagebrush sea. In the highly fragmented land ownership mosaics of the American West, conservation necessarily involves private landowners. To the extent that NGOs can integrate their efforts across private and public land, this could help grow a more stable stream of investment and revenue that incentivizes specialized restoration contractors to form.

Conclusion

Many communities across the American West have historically relied on public lands as a driver of economic activity though a variety of uses, ranging from oil and gas development to ranching or hunting. In recent decades, the ecosystem services generated by these same lands have become better understood and increasingly valued by the public at large. Mounting ecological and conservation challenges thus present public lands communities with an opportunity to pivot toward a restoration economy that draws on their deep experience with the land to leverage new sources of funding toward a more sustainable future for the lands themselves and the communities that depend on them.