

Restoring hope: the United States Forest Service's economic recovery programme

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To ease the burden of recession, the United States of America is investing in projects that restore and protect forests, improve recreational facilities and put young people to work.

In 2008, the United States of America plunged into what some have called its worst economic crisis since the 1930s (Elliott, 2008; Hilsenrath, Serena and Paletta, 2008). A financial crisis beginning in 2007 triggered a deepening recession in 2008–2009 as lenders lost confidence in borrowers' ability to repay. Major financial institutions tottered at the brink of ruin, and some entirely failed. With credit markets frozen, pillars of the United States economy such as the auto industry struggled to survive.

From January 2008 to January 2009, most economic indicators plummeted, from wholesale trade (down 15.4 percent), to new construction (down 9.1 percent), to new housing starts (down 56.3 percent), to retail trade and food services (down 9.7 percent) (United States Census Bureau, 2009). Stock markets plunged, losing up to 40 percent of their value; in early 2009, the Dow Jones industrial average reached its lowest level since 1997. From October 2008 to March 2009, the United States economy lost more than 3.7 million jobs (Bureau of Labor Statistics, 2009), raising the level of unemployment to 8.5 percent, the highest since 1983. Many people lost their homes; by December 2008, almost 12 percent of United States mortgages were delinquent or in foreclosure (OECD, 2009).

In February 2009, hope-inducing signs of recovery appeared. Manufacturers' shipments, inventories and orders, after six consecutive monthly declines, rose by 1.8 percent (United States Census Bureau, 2009); new housing starts climbed by 17.2 percent and new home sales by 8.2 percent. In March, how-

ever, housing starts fell again, as did new home sales; yet major banks such as Wells Fargo recorded profits for the first quarter of 2009. Nevertheless, even a recovering economy will continue to shed jobs until demand for labour catches up. Some economists foresee unemployment rates climbing into the double digits by 2010 (Clark, 2009).

What can the United States Forest Service do to help?

OPPORTUNITIES FOR STIMULUS PROJECTS

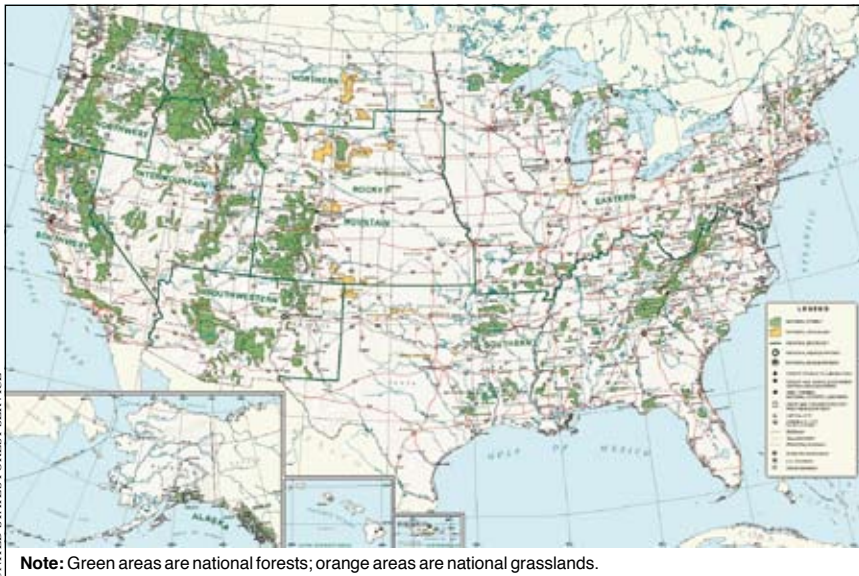
The mission of the United States Forest Service is to sustain the health, diversity and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The agency fulfills its mission through public land management, conservation-related research and extension services for private forest landowners. All three areas hold promise for creating jobs and stimulating local economies.

The Forest Service manages a system of national forests and grasslands covering 77 million hectares, about 8 percent of the United States land area (Map). These public lands are spread across 43 of the nation's 56 states and territories, from Alaska to Puerto Rico. With almost 29 000 full-time employees, the Forest Service already provides some of the best, most dependable rural jobs in the United States. Many of the communities most affected by the economic downturn are located near national forests and grasslands, and agency employees are woven into the community fabric; they know local needs, and they have the local capacity to provide project planning,

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United States National Forest System

training, employment, equipment and logistical support.

Forest Service researchers work closely with national forest managers to plan fuels and forest health treatments for landscapes beleaguered by such growing threats as invasive species, pest and disease infestations and uncharacteristically severe wildfires, all exacerbated by climate change. Researchers also monitor project results and seek more efficient and cost-effective ways to convert removed biomass into energy, partly to offset fossil fuel use. Such research and monitoring needs and activities might translate into stimulus jobs.

Agency extension programmes might also contribute. From its inception in 1905, the Forest Service has worked closely with states and private forest landowners to improve forest health nationwide. About 57 percent of forest lands in the United States are privately owned, primarily by small non-industrial private landowners. The agency has provided them with financial support and technical assistance through the states, each of which is responsible for regulating commercial forestry and private forest use within its own borders. The Forest Service has also worked with

federal, state and local partners to forge a highly effective interagency system of wildland fire management. In addition, municipalities across the United States manage about 28 million hectares of urban forests. The Forest Service works with municipal governments nationwide to protect and restore neighbourhood trees and parks.

The opportunities to provide new jobs and stimulate the economy are vast. The National Forest System alone has a deficit in deferred capital maintenance of more than US\$5.1 billion for roads, bridges, trails, campgrounds and other facilities in need of repair (USFS, 2008). Although forests in the United States are generally on a path towards sustainability (USFS, 2004), many require treatment. A 2002 study, for example, found that about 159 million hectares nationwide were at moderate to high risk of especially severe wildfires (Schmidt *et al.*, 2002). By one estimate, treatment for the at-risk area of the National Forest System alone (about 29 million hectares) would cost US\$12.4 billion (USFS, 2000). As the Forest Service prepares to help the nation address the current recession, it can choose from a plethora of potential green investments.

A LEGACY OF SOCIAL SERVICE: THE CIVILIAN CONSERVATION CORPS

The United States Forest Service has a long history of serving the nation by creating new jobs. In 1929, a financial crisis triggered a worldwide depression of staggering proportions, which lasted about ten years in the United States. At the height of the crisis, almost a quarter of the United States workforce was unemployed. In response, President Franklin D. Roosevelt established the Emergency Conservation Work Act, better known as the Civilian Conservation Corps (CCC). Its purpose was to provide jobs; stimulate spending; reverse deforestation, soil erosion and other forms of natural resource degradation; and build roads, trails, campgrounds and other infrastructure on public lands.

From 1933 to 1942, the United States Department of Labor enrolled millions of unemployed citizens for six-month terms of service in one of the most successful public works programmes in United States history. The Forest Service administered more than half of all CCC projects, thereby expanding the agency's mission focus to include social service on a national scale. Among other accomplishments, CCC planted more than 3 billion trees, built more than 97 000 miles (156 000 km) of road, erected more than 3 470 fire towers and devoted more than 4.2 million person-days to fighting wildfires and more than 7.1 million person-days to restoring watersheds and enhancing wildlife habitat (Civilian Conservation Corps Legacy, 2009).

CCC ended in 1942, but the Forest Service later reaffirmed its commitment to social service through a series of legacy programmes. The agency currently administers the Job Corps, a training programme for young people from disadvantaged backgrounds; the Youth Conservation Corps, a summer employment programme for teenagers; and the Senior Community Service Employment

The Civilian Conservation Corps (CCC) created jobs during the depression of the 1930s: a crew going to fight invasive gypsy moth, attacking oak forests in the northeastern United States



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Program, a volunteer programme for older citizens. All three programmes involve conservation-related training and work on or near national forests and grasslands. The agency's legacy of social service puts the Forest Service in an ideal position to respond to the current economic crisis.

AMERICAN RECOVERY AND REINVESTMENT ACT: FOREST SERVICE ROLE

In February 2009, the President of the United States signed the American Recovery and Reinvestment Act (ARRA) into law. The act authorized US\$787 billion in tax adjustments and stimulus spending, including US\$1.15 billion for projects administered by the Forest Service. The agency's efforts will, in time, put tens of thousands of unemployed Americans back to work. The overarching purpose mirrors that of the authorizing legislation: to create as many jobs as quickly as possible and get money flowing through the economy again.

Local managers from all three branches of the Forest Service (National Forest System; Research and Development; State and Private Forestry) have submitted more than 2 500 project proposals to the agency's economic recovery coordinators. The proposals are collectively worth about US\$4 billion in stimulus

spending, almost four times more than the US\$1.15 billion in stimulus funding available to the agency. The national coordinators have prioritized the proposals according to criteria ranging from project readiness, to biophysical measures, to local unemployment levels.

It was essential to move quickly. The faster unemployed citizens could go back to work, the greater the economic stimulus would be. However, stimulus spending was designed to balance urgency against the need for accountability and cost-effectiveness. Accordingly, the focus has been on projects that are "shovel ready" – ready to start without the need for more planning and consultation. Work on approved projects has begun quickly and will usually be completed within two to three years.

The new stimulus jobs are in the private sector. Although they are not designed to be permanent, they might open doors to a career in conservation while providing workers with new and valuable skills and opportunities that they might otherwise not have had. Projects are wide ranging, from cleaning up abandoned minelands in remote areas to restoring forests in rural areas or in major metropolitan centres.

Within five weeks after the President signed the authorizing legislation, the Forest Service had already disbursed 10

percent of its ARRA funds for projects in 21 states (USFS, 2009a). Projects are of four kinds: restoring resources on public lands; improving recreational facilities, partly to promote safety and health; creating opportunities for youth; and reducing fire risk to communities while restoring ecosystems to health.

Restoring resources

ARRA projects will improve a range of resources on public lands, both natural and infrastructural. Some projects will rebuild vital access roads to make them safer for forest visitors and local residents alike, particularly in the event of an emergency. Other projects are designed to improve water quality in lakes and streams or to restore critical fish habitat and passage.

In Alaska, for example, the community of Hoonah depends on a crumbling forest road for its lifeline to vital forest resources in the Tongass National Forest. Culverts installed long before the advent of modern design often plug up during heavy rains, threatening to wash out whole sections of road. The Forest Service is spending US\$1.45 million in ARRA funds to resurface 18 miles (29 km) of road, eliminate another 20 miles (32 km) of unneeded road and remove or replace 120 deficient culverts. This work will help improve stream



A rebuilt culvert in the Umpqua National Forest, Oregon: many Forest Service projects funded under the American Recovery and Reinvestment Act are designed to improve water quality and restore critical fish habitat and passage

quality and reopen ten blocked fish passages so that salmon will regain access to many miles of upstream spawning habitat.

Most ARRA projects involve construction; these tend to create more jobs at higher wages than other project types (USFS, 2009b, 2009c). Such projects provide work for skilled equipment operators and construction workers in hard-hit rural areas while sustaining a critical sector of the economy.

Improving recreational facilities

Outdoor recreation is tremendously popular in the United States. Each year, the national forests and grasslands alone record about 200 million visits. Especially when times are hard, a week or two spent hiking, fishing, camping or birdwatching in a national forest can be an attractive low-cost alternative to an expensive resort holiday. However, visitors rightly expect good access and safe facilities, and weather alone can confound their expectations.

In the heavily forested eastern United States, winter often brings devastating ice storms. Downed branches and trees can block roads into the national forests, making trails, campgrounds and other recreational facilities not only inaccessible, but also unusable until the damage is repaired.

In January 2009, for example, an ice storm ravaged eastern Kentucky, shutting down much of the Daniel Boone National Forest. This area is heavily dependent on tourism as a driver of the local economy, especially since the failure of a local sawmill and a car parts manufacturer. The Forest Service invested more than half a million dollars of ARRA funds to repair storm damage throughout the forest. Using local labour, the agency is clearing forest roads, removing hazard trees and making trails passable again. These jobs are putting people back to work at a variety of skill levels. By making it possible to reopen the national forest in time for summer 2009, the Forest Service revitalized recreational

use, thereby stimulating local businesses across eastern Kentucky.

Some ARRA projects are designed to make recreational facilities “greener”, for example by retrofitting buildings with new energy-efficient windows. A project in Alabama will upgrade a research laboratory to meet standards set by the United States Green Building Council (under a certification programme called Leadership in Energy and Environmental Design for Existing Buildings). Such upgrades include digital controls as well as new heating and air conditioning systems and new measures for saving water and managing waste.

Creating opportunities for youth

California is one of the states hardest hit by recession; its unemployment rate in February 2009 already exceeded 10 percent (Lifsher, 2009). Recessions tend to hit young people especially hard by causing elimination of entry-level jobs. Fortunately, California has a network of programmes with roots in the old CCC, including AmeriCorps, the California Conservation Corps, the Los Angeles Conservation Corps and the Urban Youth Conservation Corps.

National forests cover 20 percent of California’s land area, with all kinds of job opportunities: trails in need of work, recreational areas in need of repair, facilities in need of maintenance,

Fishing in the Apache-Sitgreaves National Forest, Arizona: recovery funds are used to revitalize forest recreation, offering inexpensive opportunities for relaxation in hard times and stimulating local businesses



Young people restoring habitat for endangered species, Colorado: youth employment programmes help young people learn new skills while gaining work experience in conservation



ARAPAHO ROOSEVELT NATIONAL FOREST/TIM MANGIERE

hazardous fuels in need of reduction, etc. The Forest Service has released US\$3.75 million in ARRA funding for such projects across the state, employing hundreds of young people through the existing network of youth corps. By restoring forests, rebuilding recreational facilities and making communities safer from wildfire, young people are learning new skills while gaining experience and insight into conservation.

Reducing fire risk and restoring forest health

Since the 1980s, fire seasons in the United States have gotten steadily worse. Some fires now reach catastrophic proportions unheard of a generation ago, spreading across 200 000 ha or more and costing billions of dollars in damage to homes and communities. In 2004 and 2005, more than 3 million hectares burned nationwide; in 2006 and 2007, more than 3.5 million hectares. Under

current conditions, destruction by fire could reach 5 million hectares per year.

The Forest Service is using ARRA funds to address the threat by reducing excess fuels and restoring forest health. In the Humboldt National Forest in Nevada, for example, the agency has spent US\$1.3 million to treat about 3 120 ha of forest and rangeland, partly to reduce the risk of catastrophic fire. Forest health treatments in Nevada's pine and mixed-conifer ecosystems entail removing excess vegetation, incidentally helping forests adapt to climate change in a region where water is already in short supply.

Such projects create critical jobs in rural areas, and they are highly cost effective. Economic studies have shown that ecological restoration generates more jobs than any other project type (USFS, 2009c). Moreover, the biomass removed can be used for bioenergy, creating still more jobs. In Nevada, for example, a local mill used removed biomass to manufacture wood pellets, helping to mitigate climate change by offsetting fossil fuel use. Funds no longer needed for rebuilding burnt homes and community structures can instead be used to help the economy recover.

RESTORING HOPE

Projects like these – rebuilding infrastructure, putting young people to work, restoring forests to health, and protecting homes and communities – offer hope for the future. Of course, the Forest Service has only just begun; project implementation is still under way. The American Recovery and Reinvestment Act was designed as a one-time shot in the arm for an ailing economy. No one knows for sure how effective it will be. Moreover, ARRA projects will barely dent the multi-billion-dollar funding backlogs for fuels and forest health treatments as well as roadwork and facilities construction



Prescribed burning to sustain open ponderosa pine woodland, Montana: recovery funds are used to help diminish wildfire risk by reducing excess fuels and to restore forest health while creating critical jobs in rural areas

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and maintenance in the national forests and grasslands.

Yet the signs of success are mounting: by putting people back to work, helping families bridge hard times and getting money flowing through the economy again, the Forest Service is helping to ease the burden of recession in tangible ways. Perhaps even more important are the intangible ways in which the agency is helping. Business leaders understand that the state of the national economy greatly depends on the national state of mind (Hill, 2009). Fear can grind economic activity to a halt when lenders are afraid to extend credit and consumers are afraid to spend money. At a time of widespread caution and doubt, ARRA is designed to restore hope and instil confidence. Every project puts workers on the ground for local people to see; every project leaves lasting results for people to talk about after the workers are gone. By modelling a spirit of optimism and enterprise, the Forest Service is subtly setting the stage for recovery, inspiring a “can-do” attitude that, in time, can bring renewed prosperity.

The United States Forest Service is investing in the future. People still marvel over the sound stone structures built by the old CCC, many of which have become historic landmarks. The many stimulus projects carried out under ARRA, like those of CCC, will provide lasting benefits to people. Ultimately, they will help the Forest Service fulfil its mission by delivering a range of ecosystem services for generations to come. ♦



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