

Restorative Jobs and Opportunity in Natural Infrastructure (REJOIN):

Best practices and local experiences to guide and ground a new Civilian Climate Corps



"Carbon Farming" Vision from ReImagine Appalachia Blueprint

With its abundance of trees, wetlands, farmland and plants, Appalachia is rich in carbon-absorbing natural resources. Investments in our natural infrastructure to support "carbon farming" would move us toward carbon neutrality by absorbing more greenhouse gases. Public spending on natural infrastructure could also create cheaper, better ways to protect and purify our water supply, support nature-based recreation and tourism and grow the local economy. Prior generations made similar investments.

During the Great Depression, the New Deal's Civilian Conservation Corps put 3 million unemployed people (including 85,000 Native Americans) to work planting over 3 billion trees, restoring 80 million acres of farmland and about 4,000 historic structures, and much, much, more. We must resurrect this federal job creation program.

Reviving the New Deal's Civilian Conservation Corps could put people to work restoring wetlands, planting millions of diverse, native plants and trees (especially hardwoods and food trees), reforesting the region and removing the most invasive trees and shrubs. A modern Civilian Climate Corps could protect the climate, create decent work, restore the land and improve public health by promoting healthier diets. Local organic farming can provide food to families in the food-insecure areas of Appalachia. We need to enhance the availability, affordability and familiarity of locally grown and plant-based foods.

Instead of giving away subsidies to big ag corporations that degrade the land, federal policymakers can foster regenerative farming practices and support local farmers and food networks. Regenerative agriculture—e.g. planting cover crops, reducing pesticides, capturing animal-produced methane, and other organic methods that increase biodiversity—can yield more income and lower expenses for farmers, while also absorbing carbon in our soil. Sustainable practices are a natural fit for the region's farmers, who do not want to harm the land they pass to future generations.

The value of the Civilian Conservation Corps program could be increased by targeted hiring of returning citizens caught up in the ill-considered "war on drugs" and opioid crisis, incarcerated for being sick with addiction rather than getting the treatment they needed. Public investments can protect the environment, restore our health, and rebuild lives.



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WHAT MIGHT A MODERN CCC-STYLE PROGRAM LOOK LIKE?

The original Civilian Conservation Corps (CCC) played a vital role in creating jobs and building the natural infrastructure of Appalachia. There were over 150 CCC camps in Ohio (18), Pennsylvania (97), West Virginia (18), and Kentucky (17) in 1933, and the legacy of the work these men did (the original CCC did not employ women) can still be seen in our region's parks, roads, bridges, waterways, and public lands.¹ Nationwide, the CCC employed over 3 million people over roughly a decade. The original CCC was a public works program run by the army. Workers were housed in temporary camps, and were often relocated.

Recent legislative proposals have proposed a variety of models for how a modern Civilian Climate Corps might operate. In a previous report, A Big Civilian Conservation Corps is Vital for Economy and Appalachia, we outline seven different congressional proposals that revolve around creating a modern Civilian Climate Corps.² Most of these proposals funnel federal funding through the existing Americorps and VISTA programs, including the version of a new CCC included in the Build Back Better Act (HR 5376). In that report, we note the drawbacks of the predominant Americorps and VISTA models, namely that they primarily target college students rather than discouraged workers and pay substandard wages.

In this report, we asked local leaders and practitioners to reflect on their experiences and lessons learned doing the kind of work a modern Civilian Climate Corp might take on. We also look more closely at existing community-led programs in our region that might be scaled up and replicated, including programs providing people caught up in the criminal justice system with second-chance opportunities restoring nature while paying these workers decent wages.

To help flesh out the vision of a new CCC in the 2021 ReImagine Appalachia Blueprint for "A New Deal That Works for Us.", we interviewed people from several organizations in the region that are providing job opportunities in natural infrastructure, ecological restoration and community revitalization activities. Just as the original CCC was part of Franklin Delano Roosevelt's New Deal, we can take advantage of new federal—as well as state, and local—investments to create employment opportunities to meet today's climate and economic challenges as part of a New Deal that works for all of Appalachia. These opportunities must target those excluded from employment opportunities in the past because of addiction, getting caught up in the criminal justice system because of addiction, systemic injustices, or a combination of these factors.

In Appalachia, we value local knowledge. We learn from our neighbors. This past summer, as negotiations around inflation, infrastructure, and environmental provisions became as heated as the temperatures outside, we turned to a deeply Appalachian tradition—**storytelling**. We asked several of our partner organizations who are doing work related to workforce development, ecological restoration, and green jobs to tell us about their successes, lessons learned, how they do what they do, and what their policy priorities would be for natural infrastructure investments and employment opportunities in the region.

The interviewees included individuals and groups in sustainable agriculture and urban neighborhood revitalization. They work with traditional youth trail crews and with citizens returning to the workforce after incarceration. They are in rural and urban areas, in Pennsylvania, Kentucky, West Virginia, and Ohio. They plant millions of trees and they plant seeds of hope, one job, one worker at a time. They listen. They collaborate. They give people the knowledge, resources, and tools they need to address the problems facing their communities. What they have in common is that they want to see federal, state, and local resources put toward developing sustainable jobs in the region.

A phrase we heard repeatedly in these conversations was "this is a hard nut to crack"--it is challenging to

enable returning citizens and others disconnected from the job market to permanently rejoin the labor force, restoring their dignity and making them productive contributors in the battle to address climate change. That may be true, but it is worth it—a smart investment—and worth doing well by building strong partnerships, processes for community engagement, and mechanisms for spreading effective practices.

WHAT WORK WOULD A CIVILIAN CLIMATE CORPS DO?

Healing the land: sustainable agriculture, forestry, and abandoned mine lands reclamation. Reviving the New Deal's Civilian Conservation Corps in the form of a modern Civilian Climate Corp could put people to work restoring wetlands, planting millions of diverse, native plants and trees (especially hardwoods and food trees), reforesting the region and removing the most invasive trees and shrubs. A modern Civilian Climate Corps could protect the climate, create decent work, restore the land and improve public health by promoting healthier diets. Local organic farming can provide food to families in the food-insecure areas of Appalachia. We need to enhance the availability, affordability and familiarity of locally grown foods.

1. Reforestation.

Make agroforestry a priority and plant trees (preferably ones that are also crops). This decreases heat stress, especially in urban heat islands, improves soil quality, prevents erosion, provides food, and sequesters toxic pollutants and greenhouse gasses.

2. Repairing damaged lands.

Creating jobs in abandoned mine land (AML) restoration is important to workforce development in our region because people who have worked in extractive industries (mining, etc.) have the equipment and know-how that can be applied to restoring the land.

3. Urban green space.

Community leaders and policymakers need to be creative about understanding the vast impacts that restoring vacant lots can have. The scope is much bigger than simply cleaning up ugly or underutilized spaces. There are economic, environmental, and public health consequences. Often, municipalities lack the necessary resources to cover the costs of vacant spaces, and this causes suffering primarily for Black and brown residents. It is also important to understand that private markets will not solve the problem of vacant lots; there is no (or not enough) economic incentive for individuals or businesses to solve this on their own. Federal resources are needed.

- When land remediation happens, there needs to be more oversight of how materials are removed and disposed of. Community oversight and learnings are key in every stage of program implementation, including safer demolition practices so that work in urban spaces doesn't expose families to lead contamination or other dangers. In an example specific to Pittsburgh, PA, Act 152 provides funding for safer demolition practices, such as wetting down materials before demolition to prevent dust from blowing all over the neighborhood. That's a step in the right direction, but federal funding is needed for more comprehensive tools to lessen the negative impacts of demolition.
- State and city parks could house "New CCC" participants for paid work experiences maintaining public space facilities, expanding recreational opportunities, and providing a workforce to address specific ecological issues. These participants could be on public payrolls or employed by nonprofits, like nature conservancies, "friends of the parks" groups, etc.

4. Grow it in Appalachia, sustainably.

ReImagine Appalachia supports, and Pennsylvania Senator Robert P. Casey Jr., champions, deploying some new CCC members within carbon-absorbing "regenerative agriculture" and agroforestry, including working for farmers. Here are some of the agricultural production that, with creativity, could tap a new CCC.

- Improve industrial hemp. Growing industrial hemp is legal, but it suffers from a lack of understanding and support. With better policy-level support, industrial hemp could be a beneficial crop for the region's farmers, and a critical feedstock for non-fossil-based materials that are designed to be recycled or reused.
- **Support small farms.** The current Farm Bill prioritizes big farms and concentrated animal feeding operations (CAFOs). New federal investments need to include more resources for small and new farmers–including paying the wages and benefits of CCC participants working for farmers.
- Create pathways for Black Farmers in Appalachia, as well as other historically-marginalized groups. There is also a history of discrimination against Black farmers that needs to be addressed. Fortunately, the recently-passed Inflation Reduction Act includes several provisions for climate-smart agriculture, including approximately \$20 billion for various USDA programs, such as the Conservation Stewardship Program and the Regional Conservation Partnership program. There are also specific provisions for supporting Black farmers.³ The next step will be to ensure that relevant stakeholders are aware of these opportunities and able to access applicable funding sources, as well as continuing to invest in our region's small farms and sustainable agriculture. In addition, it is important to take note of the provisions outlined in the Justice for Black Farmers Act⁴ currently under consideration in Congress; they include providing debt relief and creating a land grant program to encourage a new generation of Black farmers. Having Spanish-speaking staff at the Farm Service Agency (FSA) in the Department of Agriculture is important as well.
- **Provide more support for young farmers** interested in sustainable farming could have both environmental and economic benefits for the state. Pennsylvania has a large number of young people who want to get into farming, but do not have access to land, equipment, or other resources.
 - » Diversification of agriculture operations is also critical. Funding mechanisms like the Farm Bill could be adapted to support smaller farms growing multiple crops rather than monoculture, or mixed land use such as silvopasture (grazing livestock in wooded areas) and integrating solar arrays into fields for crops or grazing. These techniques could also apply to more creative and sustainable use of marginal land (steeper slope, less fertile soil) to make land productive while also preventing the risk of erosion or landslides.
 - » Solar: massive solar arrays are displacing farming. Instead, we want to advocate for dual land use- incorporating growing and grazing along with solar. So far, there are only a few developers willing to do that.

WHO WOULD THE CIVILIAN CLIMATE CORPS EMPLOY?

Natural infrastructure job programs need to not just be one-time experiences. They should be part of a larger pipeline, or career pathway, into public works jobs and union building trades apprenticeship programs. Some programs, such as Landforce in Pittsburgh, address this by combining training with job placement services while many "pre-apprenticeship" programs can lead to apprenticeships—i.e., to a job, in many cases within well-paid unionized construction.

Local leaders can take advantage of American Rescue Plan Act (ARPA) funds to create career pathways into union apprenticeships and jobs that pay a livable wage. To fully recover from the pandemic and strengthen the middle class, we will need to ensure that there are opportunities for high-quality jobs for those who have most often been excluded from full labor force participation, especially Black, Latinx, Indigenous people, and those with low incomes. In recognition of this, the US Treasury Department has stated that community-labor partnerships that provide apprenticeship-readiness programs to "disproportionately impacted" individuals will be "presumed eligible" for ARPA funds.⁵

Apprenticeship and job readiness programs are so much more than just informing people about job opportunities. They should be designed to help overcome employment barriers by providing on-the-job training, uniforms and equipment, certifications, transit passes, stipends for childcare, and other services that support finding and keeping steady employment. Creating these apprenticeship readiness pathways for impacted communities can help state and local governments secure competitive federal grants through the Bipartisan Infrastructure Law (BIL) and now through the Inflation Reduction Act.

Similarly, <u>Youthbuild</u> and equivalent training and employment programs play an important role in introducing the next generation of workers to careers in the skilled trades. Youthbuild could be an even greater asset to an economically and environmentally resilient 21st century workforce by broadening its curricula beyond just traditional construction (and how health care and IT) to the full range of climate resilience work and by vastly strengthening the linkages to unionized apprenticeship.

Prioritize jobs and second-chance opportunities for returning citizens and people caught up in criminal justice system:

- There are many examples of in-prison training and education but the best programs follow individuals through the reentry process and create pathways to stable employment. As we continue to identify the climate-resiliency and natural infrastructure jobs that are needed in our region, preand-post release training programs, or alternatives to incarceration such as diversion or step-down programs should be part of the solution for developing a well-qualified workforce to fill these jobs.
- Citizens returning to the workforce after incarceration, who face many barriers to employment, depend on nonprofits operating in the communities to which they return. To succeed, however, these nonprofits need partnerships with (a) decision-makers in the political and corrections systems and (b) employers, unions and/or CCC programs that offer living-wage employment opportunities and pathways to better jobs.
- Integrating housing, mental health, substance abuse counseling, and employment is ideal. People should have a safe and sober place to live, receive counseling services at or near their residence, and have a job to go to or a training program that is all built-in.

• For programs to be approved and have a chance of lasting, there needs to be support for them at higher levels of the corrections system and state government—be buy-in at all levels—and public support and resources.

Prioritize opportunities for veterans:

- Create career opportunities for veterans entering natural infrastructure jobs. At present, there are no
 job training programs tailored specifically to veterans that would train them in the skills needed to
 qualify for emerging jobs in the climate resilience sector. You can't stop at simply creating jobs, you
 have to recruit, qualify and provide support for applicants to fill those jobs.
- Outdoor activity helps contribute to the psychological well-being of veterans, so increased funding for natural infrastructure workforce development provides veterans with stable employment that contributes to their overall health. The same is true for returning citizens and other marginalized workers as well.
- State and federal legislators need to coordinate with county workforce development boards and the Department of Veterans Affairs to establish a pipeline that can help ensure a smooth transition for veterans from the workforce training program directly to the green energy and natural infrastructure jobs with positions that need to be filled.

WHY DO WE NEED A 21ST CENTURY CIVILIAN CORPS?

- By employing thousands of workers in natural infrastructure jobs, the CCC could help absorb more carbon dioxide and allow for a smoother transition away from fossil fuels. This is critical for Appalachia because Kentucky, Ohio, Pennsylvania, and West Virginia make up 25% of the nation's coal production and 30% of natural gas production.
- A modern CCC can give priority to workers who have historically been excluded from employment opportunities, especially in natural lands and conservation work.
- Creating jobs in natural infrastructure and ecosystem restoration will also increase resilience to flooding and other extreme weather events. Existing impervious services and land cannot absorb the amount of water from extreme rains and weather events. This overflows stormwater capacity, leading to sewage overflows that dangerously pollute our rivers, such as the Allegheny and Monongahela in Pennsylvania. The effects can be seen on an immense scale such as the recent flooding in Eastern Kentucky and elsewhere in the region. More infrastructure is needed to absorb and manage these extreme changes in precipitation.
- Our hope for a modern CCC-style employment program would be for jobs that last with clear pathways for career advancement.
- Natural infrastructure provides numerous co-benefits for the environment, the climate, and the economy. In many cases, it can be more cost-effective than traditional infrastructure or can work in tandem with traditional infrastructure to decrease overall lifecycle costs. In addition to creating good

jobs, it comes with ecological benefits such as preserving wildlife habitats or improving water quality, and climate benefits such as carbon sequestration and climate resilience. To learn more about the many co-benefits of natural infrastructure, check out these-resources from National Wildlife Federation.

- Investing in our natural systems is good for public health too. Green stormwater infrastructure can reduce the burden on water treatment facilities by diverting and treating a portion of the volume that they would otherwise treat, which can reduce or prevent sewer overflows. Green spaces and tree cover in urban communities can reduce the heat island effect and provide shade, and there are numerous studies that have linked time spent in nature with improved mental health. For example, Mercy Health offers this article on "nature bathing."
- Workforce development in green stormwater infrastructure (GSI) can create a pathway to jobs and provide municipal authorities with an incentive to become employment partners for nonprofits.

APPALACHIAN PROGRAMS PROVIDING RESTORATIVE JOBS IN NATURAL INFRASTRUCTURE

This past summer, ReImagine Appalachia research intern Molly O'Brien interviewed several people from organizations in Appalachia that are doing the full breadth of the work we envision a modern Civilian Climate Corps could do- healing the land through forestry and abandoned mine lands reclamation, revitalizing urban spaces, and growing food through sustainable agriculture, introducing young people to trail crew and conservation work, and restoring dignity to returning citizens through employment opportunities. The following program examples were selected to demonstrate the range of approaches and areas of emphasis that could be effective elements of a Civilian Climate Corps that works for Appalachia. There are both urban and rural examples, from agriculture to abandoned lots. The people employed by these programs represent the diversity of our region in age, gender, race, and involvement with the criminal justice system. We lift up this variety of models because there is no one approach that will be universally applicable to all of Appalachia. Yet, each one of these programs offers elements that have been successful in their context and speak to some of the promises of what a modern CCC could accomplish for the economic, social, and environmental well-being of our region.

1. PASA Sustainable Agriculture

PASA is a nonprofit led by farmers with over 7,500 members in Pennsylvania. It seeks to educate farmers and the general public about best practices in sustainable agriculture. PASA's main activities include a winter conference, on-farm demonstrations, events, listening sessions, and sharing information via blog posts, social media, and other means. The association has apprenticeship programs for diversified vegetable growers and dairy grazers and a preapprenticeship program for high school students interested in agricultural careers. As part of the program, participants gain experience with harvesting, processing, selling, and giving farm tours, so they have a well-rounded sense of farming-related tasks. Both the pre-apprenticeship and apprenticeship programs are registered through the Pennsylvania Department of Labor and Industry.

Diversified Vegetable Pre-Apprenticeship program:

The Diversified Vegetable Pre-Apprenticeship program was launched in 2021 to provide an entry point into sustainable vegetable farming for those with little to no direct farm experience. It is aimed at high-school-age students (the minimum age is 14). Participants are placed with partner organizations with an established track record of providing farmer training. Trainees complete 225 hours of on-the-job training and 25 hours of related technical instruction. They must demonstrate competency in the same core areas as the Diversified Vegetable Apprenticeship program (see below). There are currently at least 8 host sites throughout the state, including urban and rural farms and partnerships with college farms at Lafayette College (Easton, PA) and Dickinson College (Boiling Springs, PA).

Diversified Vegetable Apprenticeship program:

As compared to the pre-apprenticeship which is aimed at youth, this program is aimed at adults. Through the Diversified Vegetable Apprenticeship program, participants gain over 2,700 hours of on-the-job training and 200+ hours of related technical instruction (RTI) over 18 months of working on host farm sites. Apprentices receive training in 15 core competency areas: crop planning, propagation, soil fertility, tillage and field preparation, crop production, irrigation, weed control, pest and disease control, harvesting, post-harvest handling, product distribution, marketing, equipment and machinery maintenance, business planning and personnel management. Host farms compensate apprentices with regularly scheduled wage increases as their skills develop.

PASA also has a dairy grazing apprenticeship for aspiring dairy farm managers or owners, so a CCC pre-apprenticeship could ultimately give participants a pathway to becoming part of the next generation of farmers.

2. Green Forests Work

https://www.greenforestswork.org/

Green Forests Work aims to convert reclaimed nonnative grasslands into healthy, productive forests by planting trees on former mine lands. Many mine lands were originally mixed-use deciduous forests, so this is a return to that use of the land. Using a version of the Appalachian Regional Reforestation Initiative (ARRI) forestry reclamation approach, Green Forests Work combines economic development, ecological restoration, and environmental education and outreach. They are housed at the University of Kentucky in Lexington but work on reforestation projects throughout the region.

When they were first established in 2013, the original idea was to start a CCC-style work crew program to manage the whole lifecycle, from seeding to maintaining grown trees. They later adapted their approach to instead contract with others to do the planting, including the Appalachian Conservation Corps and professional tree planters. This means that Green Forests Work takes the unique approach of accomplishing its reforestation work through a combination of paid and volunteer labor.

Groups who have partnered with Green Forests Work for volunteer tree planting include:

- Girl Scouts/Boy Scouts
- School groups

- College "alternative spring break" programs
- · Corporate volunteer teams
- Local bourbon companies, that have an interest in sustainable white oak, which they use for their bourbon barrels

In 2022 so far, Green Forests Work has planted over 1.1 million trees across 3,194 acres, spread over 650 pounds of native grass seed and wildflowers, and engaged over 3,000 volunteers. Since 2009, they have planted more than 5 million trees, on over 9,400 acres.

The work of reclaiming degraded lands has many stages, from collecting seeds, from growing seeds in nurseries, transplanting seedlings, caring for the trees as they grow, and then collecting seeds from mature plants to begin the process all over again. There is also work involved in site preparation, which often requires equipment and skill sets already possessed by those who have worked in extractive industries such as mining. Restoring degraded lands could therefore be a viable career option for those who have lost jobs in these extractive industries.

3. Grounded Strategies

https://groundedpgh.org/

Grounded Strategies works to improve the social, economic, and environmental health of distressed and transitional communities by building capacity to reclaim vacant and underutilized land. Population decline in Pittsburgh has led to many vacant lots. These vacant lots present environmental challenges disproportionately affecting low-income communities and people of color. Grounded restores these vacant lots to productive use, improves community health, and creates economic and environmental benefits. Grounded provides training education and technical assistance, but the resident stewards of the land have direct involvement at all stages.

Often, the process starts with someone contacting Grounded about a vacant lot and asking for assistance in creating a plan for how to restore it to better use. Grounded will consult with the affected stakeholders, host design charrettes, gather info about neighborhood needs, connect to other relevant resources, and facilitate the next steps, but the affected community owns the process and takes responsibility for ongoing stewardship.

Community land stewards are compensated for their work with a small stipend. The principle is that they are providing a benefit to the community and should be compensated for their work.

Grounded was founded 15 years ago, and since then, they have facilitated 200 separate projects across 42 Pittsburgh neighborhoods. Projects have included community gardens, public art, playspaces, Little Free Libraries, green stormwater infrastructure (GSI) installations, and much more. Educational and capacity-building resources include a Land Doctor hotline, the PGH Mobile Toolbox rental program, and Lots to Love, an interactive online resource that maps all the vacant lots in Allegheny County and provides resources for residents or community groups who want to reclaim and transform these lots. Information on more of Grounded's current or recent projects can be found here.

4. Landforce

https://www.landforcepgh.org/

"Landforce came about because of a deep and meaningful collaboration between partners that took many hours of deliberate and honest conversation coupled with imagination, grit, and a belief in the shared parts of our missions. Working closely with partners can certainly present challenges, but when you find the sweet spot, there's nothing like it."

-Ilyssa Manspeizer, Executive Director, Landforce

Landforce provides meaningful transitional employment in the environmental sector that, combined with their intensive training and one-on-one career counseling, leads to a well-stewarded environment and the transition to family-sustaining jobs for people who were previously excluded from these opportunities.

Landforce treats environmental stewardship and work readiness as equally important to its mission and seeks to integrate these two priorities into all aspects of its business. Each year, Landforce employs about 25 people on their crews. Over seven years of programming, Landforce has employed more than 125 people on their trail crews. All employees go through at least 7 weeks of paid training. This includes both classroom learning and on-the-job training at job sites. Topics include "soft skills" such as understanding appropriate workplace behaviors, navigating coworker and supervisor interactions, time management, and employee rights and responsibilities. Participants are also trained in "hard" job skills such as tool use, plant identification, landscaping, tree trimming, carpentry, and green infrastructure management. While working for Landforce, employees can gain relevant certifications in many of these skill areas that will give them an advantage in future employment. Program participants have the opportunity to earn progressive wage increases as their skills develop, topping out at \$16 per hour.

Landforce successfully demonstrates that programs integrating environmental stewardship and job skills training need not all be targeted at youth. Programs like Americorps and SCA play an important role in introducing youth and young adults to conservation and public lands jobs, but Landforce has demonstrated that people of all ages can do this work and deserve a chance for supportive and affirming employment in this field. It has also demonstrated that nature-based employment that pays a decent wage can have a powerful restorative effect on people who have struggled with mental health or substance abuse or have been involved in the criminal justice system. In short, Landforce offers employment that seeks to restore both people and landscapes to wholeness.

5. Vincentian Ohio Action Network, dba Accompanying Returning Citizens with Hope (ARCH)

https://www.archreentry.com/

The Vincentian Ohio Action Network (VOAN) was started in 2014 as an advocacy organization with a desire to bring together people to talk about the needs of returning citizens, provide education and community organizing around legislation related to the criminal justice system, and educate employers about the benefits of hiring second chance workers. They saw the need for a direct service component as well as advocacy, and the ARCH re-entry program was started in 2017.

ARCH is "making the world a more welcoming place for returning citizens one business, organization, and faith community at a time." ARCH works with employers to offer second chance employment opportunities to returning citizens. They work with faith communities that have prison ministries and/or reentry programs, advocate for legislation that supports returning citizens, and offer job candidate matching, employment coaching for both employers and employees, problem-solving, conflict resolution, and other job readiness skills through the ARCH Business Network.

ARCH takes a holistic approach to understanding the supports that need to be in place to reduce recidivism and facilitate reentry. These include housing, mental and physical health, transportation, and employment. To assist with employment readiness, ARCH helps returning job seekers with resumes, job search strategies, and tools to assess their skills or explore different career options. ARCH also works with employers to help them understand the benefits of hiring returning citizens, such as tax credits, bonding, and other incentives.

There are several promising opportunities to integrate reentry employment, conservation, and climate resiliency in our region. One example from Columbus, Ohio is a horticulture training program for women in prison. A recent graduate was hired by the City of Columbus and is now employed as a gardener and landscaper for city properties. The city gave her an employment letter with a guaranteed salary and benefits even before release. This is significant because a housing plan is necessary for release, and having employment helps with finding safe, affordable, housing if the landlord knows the applicant has a job.

6. Student Conservation Association (SCA)/ PA Outdoor Corps

Student Conservation Association (SCA)

https://www.thesca.org/about

SCA has nine Community Programs nationally and Pittsburgh is one of them. These programs focus specifically on urban centers, rather than the traditional wilderness-based trail crew model of SCA. SCA urban crews have ten members between the ages of 14-19, with two adult crew leaders. Crews work mostly in city parks, and sometimes on properties owned and operated by community organizations. While maintaining public green spaces, SCA crew members develop valuable employment skills and learn about historic natural resource use and how extractive industries continue to influence the economy and public health realities these young people have inherited.

Pennsylvania Outdoor Corps

https://www.dcnr.pa.gov/outdoorcorps/Pages/default.aspx

A similar program, jointly managed by SCA and the Pennsylvania Department of Conservation and Natural Resources (DNCR) is the Pennsylvania Outdoor Corps. Pennsylvania Outdoor Corps runs two nine-month crews for young adults ages 18-25. Trail Crew members receive job training, work experience, and education in natural resource management, recreation skills, and environmental issues. The Cultural Resources Crew provides aspiring archaeologists and preservationists with the skills necessary for careers in land and resource management while completing preservation projects in Pennsylvania's state parks and forests.

WISDOM FROM THE GROUND

1. Community engagement in the program design stage is critical. Community consensus builds power.

- Invest resources in finding creative ways to ensure community members, participants, and other key stakeholders are actively engaged in identifying and addressing their own needs.
- When community members are included, the design process can be as important as any potential outcomes.
- You get further with listening, not telling.
- It's important to be aware of historical inequities and address them outright. Otherwise, practitioners run a high risk of exacerbating them, even when their intentions are good.
- Collaborate with the local community- take time to understand who is doing related work.
- Bring new people to the table whose voices are not always heard, particularly those impacted by historical inequities.
- Advice to organizations doing similar work: Leverage your networks of people doing similar work as well as those doing related but different work. Be aware of the community resources already in place and work to enhance them, not compete with them.

2. Build trust over the long term - make it clear you're not going away

• Training and empowering members of the community who will take long-term ownership of the program is critical. It is also important to have a community organization or trusted community entity that is known and trusted in the community and takes responsibility for sustaining that support. Community members, program participants, and other stakeholders need to know that those responsible for introducing new ideas or initiatives are not going to move on or move away.

3. "We don't just need new programs, we also need investments in long-term community-led programs"

- If federal, state, or local governments want to invest in natural infrastructure and ecosystem services, they do not always need to create their own new crew or program- they could and should look to the people who have experience with this work.
- Don't reinvent the wheel or discount local knowledge. Where possible, before starting a new program, entities should research community-led work that may already be happening. We should prioritize getting the funding to the local community leaders who are already doing the work.

4. Investing in nature for our own good

- Developing healthy soil is a form of flood mitigation. It is cheaper and more sustainable than other methods.
- Cheap and easy solutions like improving soil health should be standard practice. This applies to farming as well as to urban green spaces.
- Vacant lots represent an opportunity to leverage ecosystem services for the mitigation of natural disasters and environmental problems that plague urban communities. Green spaces on vacant lots contribute to stormwater runoff management, carbon sequestration, and reducing urban heat stress.
- Planning and protecting urban gardens to provide fresh food in urban food deserts builds community and improves quality of life and health. Assuring continuity for urban community gardens to protect them from development is critical for success.
- We need more qualified professionals who understand how to holistically maintain the land. We need professionals with a more comprehensive understanding of soil health, water management, erosion and runoff prevention, and other ecosystem services that well-designed green spaces can provide.

5. Restoring the environment and worker dignity through sustainable career pathways

- When we say "sustainable", we mean it in every sense of the word; jobs that pay well enough to sustain a family, jobs that are long-lasting and won't be transferred elsewhere, and jobs that support, protect, and sustain our natural resources that for so long have been exploited and extracted.
- "You can't just hire a crew" and wonder why people don't stay, don't succeed, or don't get another conservation job after the trail crew. You need to put systems in place that set employees up for success in present and future roles. Part of that includes providing good supervisors and mentors who understand the diversity of challenges that their workers face.
- Organizations in the region have shown that people of all ages can do this work and deserve a chance for supportive and affirming employment in this field, as much as any young person.
- There is not enough support for migrant workers. This is a piece that is often missing from conversations about sustainable agriculture.
- We want to challenge the prevailing assumption that "under 26" is somehow a magic number for conservation and ecosystem restoration work. People of many ages and backgrounds can benefit from good-paying jobs doing meaningful work for our environment.
- Employment programs need to be centered on the needs and desires of the intended beneficiarieswhat skills do people say they need and want? What career opportunities do they want to train for?
- For people re-entering the workforce after incarceration, pre-release programs, training, education, and certifications are all important, but to be an effective part of a reentry program they need to be linked to post-release employment as well. The skills-to-jobs pipeline has to start before release and continue through reentry into stable, independent employment.
- Removing systematic barriers to employment, driver's licenses, stable housing, borrowing money, and civic and political engagement provides re-entry to aspects of life that will give Appalachians a greater say in their community and country.

CONCLUSION

Just like the original Civilian Conservation Corps transformed Appalachia by employing people to plant trees, enhance farmland, maintain public lands, and built critical infrastructure, a modernized Civilian Climate Corps could put people to work to reforest abandoned mine lands, increase our resilience to floods and other extreme weather through natural infrastructure, improve health and safety of our cities through urban green spaces, support small farms and reduce food insecurity by making healthy food available through sustainable agriculture. All of this can be done while expanding opportunities to marginalized workers, strengthening career pathways, and paying everyone a decent wage. The program examples we have highlighted here show a few of the ways that this can be done and the diversity of stakeholders that need to be engaged in the process, but this is not an exhaustive list. ReImagine Appalachia welcomes additional voices and partners to join us in advocating for a Civilian Climate Corps and working to ensure that any federal resources put towards these efforts make it to the partners and programs in Appalachia that can most effectively advance this vision.

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ENDNOTES

⁴ Booker, Warren, gillibrand, smith, warnock, and Leahy announce comprehensive bill to address the history of discrimination in Federal Agricultural Policy: U.S. senator Cory Booker of New Jersey. Booker, Warren, Gillibrand, Smith, Warnock, and Leahy Announce Comprehensive Bill to Address the History of Discrimination in Federal Agricultural Policy. (2021, February 9). Retrieved November 29, 2022, from https://www.booker.senate.gov/news/press/booker-warren-gillibrand-smith-warnock-and-leahy-announce-comprehensive-bill-to-address-the-history-of-discrimination-in-federal-agricultural-policy



¹ Public Broadcasting Service. (n.d.). CCC camps in the U.S. in 1933. PBS. Retrieved November 29, 2022, from https://www.pbs.org/wgbh/americanexperience/features/ccc-camps-across-america/

² Herzenberg, S., & Boettner, T. (2022, April 9). A big civilian conservation corps is vital for economy and Appalachia . ReImagine Appalachia. Retrieved November 29, 2022, from https://reimagineappalachia.org/a-big-civilian-conservation-corps-is-vital-for-economy-and-appalachia/

³ Duster, C. (2022, August 18). Democrats reset effort to compensate farmers of color as part of new spending package | CNN politics. CNN. Retrieved November 29, 2022, from https://www.cnn.com/2022/08/18/politics/usda-farmers-inflation-reduction-act/index.html