



# Sustainability Education in Prisons: Transforming Lives, Transforming the World

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Fifty kilometers northeast of Seattle, Washington, staff and inmates at the Monroe Correctional Complex made plans for a “worm farm,” a composting program that would provide education and training while mitigating the institution’s \$65,000 annual expense for food waste disposal. This simple idea ballooned in ambition and scale due to the energy and charisma of an inmate in the program. He engaged with leading experts in vermiculture (breeding worms) and vermicomposting, asked for investment in scientific resources and equipment, and fostered a program culture of education and outreach.<sup>1</sup>

With the support of staff from the Department of Corrections, the program’s inmate technicians built breeding and composting bins from reclaimed materials and learned how to brew “worm tea.” The team grew the worm population from two hundred starter worms in 2010 to 7 million by 2016, and they now process nine tons of food waste from the facility each month. Twenty-two men have served as worm farm technicians so far. They commonly describe the job as their first experience with science and the first place that they “experienced peace” in prison.<sup>2</sup>

After six-and-a-half years, the program continues to innovate. Trials using anaerobic fermentation to preprocess fats and oils have led to the program accepting meat and dairy wastes. The most recent pilot project involves feeding postconsumer food waste to black soldier fly larvae and then donating

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A worm farm technician at the Monroe Correctional Complex shows the prison's vermicomposting program to visitors from the region's leading organic gardening nonprofit organization.

the excess larvae to nearby zoos as high-quality animal feed. The program now serves as an international model for worm composting, and hundreds of visitors have been impressed by the environmental expertise of prisoners who work in the program.<sup>3</sup>

Prisons are designed to contain and control the people they house, and corrections facilities may be the last place where one would expect to find innovative environmental programs. Communities outside the prison fence typically ignore and dis-

count the people within. In stark contrast to these everyday realities, however, beautiful and productive environmental education initiatives are blooming in such facilities across the United States and around the world. Extraordinary partnerships have emerged among incarcerated people, corrections staff, nonprofit organizations, visiting students, faculty, scientists, and community groups. Together, they are creating programs that provide environmental education, gardening, recycling, composting, materials repurposing, habitat restoration, endangered species recovery, and job training.

The Sustainability in Prisons Project (SPP), the U.S. umbrella organization under which many of these programs exist, was founded in Washington State by the Department of Corrections and The Evergreen State College in 2003. In fourteen years, the effort has grown dramatically, supporting more than one hundred and seventy sustainability programs in Washington State prisons and gaining national and international recognition for leadership in the prison-based environmental movement. With support from the National Science Foundation, the SPP Network was formed in 2012 to support expansion of these programs. SPP-modeled programs have been established in state prisons in Maryland, Ohio, Oregon, and Utah and in county jails in Santa Clara, Los Angeles, Multnomah, and Salt Lake counties. Twenty-five more U.S. states have similar programs or aspirations. SPP's work demonstrates the vast potential to expand environmental education initiatives that engage underserved populations in corrections institutions throughout the world.<sup>4</sup>

SPP programs provide multiple examples of innovative initiatives and partnerships that bring environmental education into prisons in the United States. New ideas become successful programming when the interests of all stakeholders overlap, when there are benefits for all involved, and when adequate resources are available. The original spark of an idea can come from an inmate, sustainability expert, nonprofit, graduate student, academic, prison staff member, or volunteer citizen. The programs that develop are often informal and low-cost, and thus are more accessible to a broad group of contributors and more affordable to correctional facilities.

In the United States, a country that has more corrections facilities than colleges, providing environmental education to prisoners has at least two powerful effects. First, it creates opportunities for prisoners to heal and redeem themselves, increase their knowledge and skills, and reduce their chances of returning to prison after release. Second, expanding environmental education to currently excluded populations is a necessary part of developing and nurturing diverse and talented environmental stewards and environmental justice activists. Doing so will increase the number of people who are committed to the struggle for a more just and sustainable world and will lead to transformational social and environmental partnerships.<sup>5</sup>

## Environmental Education in Prisons

Environmental education must be relevant, holistic, socially responsible, considerate of all life forms, issue-based, action-oriented, reflective, and democratic. At the 2002 World Summit on Sustainable Development in Johannesburg, South Africa, participants issued a multinational plea “for partnership that would allow communities, professionals, and governments to jointly take action,” recognizing that we are stronger if we are inclusive and united. This approach to environmental education, often referred to as “social learning,” begins by recognizing every person’s ecological knowledge and by building shared beliefs through storytelling, dialogue, debate, and problem solving. It requires that mainstream environmentalists move outside of familiar circles, visit new communities, and be maximally prosocial—taking action to benefit others. Marginalized groups are present in every community, and so long as one is willing to step into a new neighborhood, onto a reservation, or through a prison gate, there is access to original ideas and wisdom.<sup>6</sup>

When it comes to the challenge of extending environmental education to previously excluded groups (see Box 19–1), there are few groups more

**Box 19–1. The Value of Broadening Access to Environmental Education**

People from low-income communities and communities of color bear the brunt of environmental problems and injustices. Environmental justice expands environmentalism so that all groups of people have opportunities for benefit and influence; in this context, increased access to environmental education is a means to empowerment. The environmental movement also has much to gain from inclusiveness. There is a far greater hope of meeting global interdisciplinary and intersectionality issues and challenges if all stakeholders are on board.

An environmental movement that represents all stakeholders will be stronger and more resilient. When people who traditionally have been excluded from the mainstream environmental movement are included, they contribute a much-needed diversity of experiences and new ideas. Ensuring diversity in environmental education, sustainability initiatives, and environmental movements will open up myriad ways of tackling environmental problems and creating solutions.

*Source: See endnote 7.*

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marginalized than prisoners. The U.S. crisis of mass incarceration currently imprisons 2.4 million adults, and 92 million Americans have criminal records. African Americans and Latinos are disproportionately affected by environmental problems and injustices, are underrepresented in the mainstream environmental movement, and are disproportionately represented in the incarcerated population. One in twelve African-American men and one in thirty-six Hispanic men serve time in prison. Incarcerated adults have less education than the general public, and, without education, their prospects of post-incarceration employment are discouragingly low.<sup>7</sup>

In-prison education is the only proven method of reducing recidivism (return to incarceration), yet access to educational programming in prison is a rare privilege. In the United States, only 6 percent of incarcerated adults receive in-prison postsecondary education, nearly all of which is vocational. A focus on environmental issues or science in prison is even more uncommon.<sup>8</sup>

Degree-awarding programs in prison provide an invaluable opportunity to their students, but they are offered in very few facilities and are available to very few incarcerated individuals. A meta-analysis of the effects of correctional education on post-release employment and recidivism shows that informal or vocational programs convey as many advantages as formal academic programs in prison. Although increasing access to traditional academic programs

is important, nontraditional, lower-cost education programs, such as the ones facilitated under SPP's umbrella, must be made available on a broader scale to serve a larger number of incarcerated individuals.<sup>9</sup>

SPP's programs incorporate three educational approaches, as described below:

*Experiential learning opportunities.* Hands-on practice and experimentation is hugely motivating and engaging for most students. Environmental literacy students at Washington State Penitentiary follow mornings in the classroom with afternoons in the adjoining Sustainable Practice Lab (SPL). They receive hands-on training in areas such as bicycle and wheelchair restoration, plant propagation, aquaponics, composting, and making crafts from reclaimed materials. Many graduates continue in the SPL's job programs, and all are encouraged to contribute to improving and adding to the Lab's eighteen program areas. A similar, less formal, initiative exists in Santiago, Chile, where the nonprofit organization Casa de la Paz empowers inmates to refashion discarded materials into valuable tools and crafts.<sup>10</sup>

*Prosocial motivation.* Students are motivated by topics that are practical and valuable in the real world and to their communities, and most participants in SPP programs want to be helpful to others. In the U.S. state of Ohio, incarcerated women enrolled in an environmental literacy and justice class called Roots of Success use recycled bags to make crocheted mats that are donated to people sleeping on the streets. The mats provide a barrier between the street and a sleeper's body and deter bed bugs and other insects. At the same time, the women's efforts reduce waste at the prison.<sup>11</sup>

*Community-based approach.* Emphases on community building and mentoring create a learning community that supports and reinforces education. Incarcerated women at Mission Creek Corrections Center for Women outside of Belfair, Washington, collaborate with SPP graduate students and staff, corrections staff, biologists, zookeepers, and others to rear federally endangered Taylor's checkerspot butterflies. Since 2012, the program has reared and released more than ten thousand caterpillars and adult butterflies. Incarcerated technicians receive extensive education and training on the technical work, contribute to program trials and protocols, and increase the capacity of an endangered species recovery effort. They also develop connections with partners outside the prison that expand their education and employment support network.<sup>12</sup>

These three educational approaches are important because they inform the learner's identity and help integrate new ideas and skills into a sense of self.

Research has shown that educational programs that foster shared learning significantly reduce achievement gaps, and they motivate individuals to work as a team for the good of the group. SPP partnerships are founded on shared beliefs and intentions that acknowledge academic potential and that support students' sense of belonging.<sup>13</sup>

It is difficult to find environmental curricula that satisfy all three of the components above. Few curricula contain content that is directly relevant to the everyday experiences of people who come from marginalized or low-income communities, or from communities of color. Environmental curricula that are designed for students who have weaker academic skills are even more difficult to come by. It also is challenging to find curricula that give sufficient

attention to achievable and local actions and solutions. Often, environmental education focuses on global-scale “doom and gloom” that the average student does not find compelling or motivating.<sup>14</sup>

In 2012, Ohio's Department of Corrections began offering Roots of Success, a ten-module environmental literacy and work readiness curriculum that is designed to meet the needs of students who have not been well-served by the education system. Students graduate from the course understanding a wide range of environmental issues, with the job and reentry skills needed to work in the green economy, and with a certificate to show potential employers. Each module focuses on a different environmental sector, such as water, waste, transportation, energy, building, and food. Videos and case studies feature individuals from marginalized communities—including incarcerated youth and adults—in leadership positions. The teaching approach encourages students to extend previous knowledge and experiences and to connect what they are learning in the classroom to real-world issues and employment opportunities. Intensive student engagement, relevant content, multimedia materials, and group activities stimulate students' intellectual curiosity and



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Butterfly technicians at Mission Creek Corrections Center for Women in Belfair, Washington, pose in front of a poster set up for visiting daughters of inmates through the Girl Scouts Beyond Bars program.

ignite their interest in the subject matter. The course challenges incarcerated individuals to think critically about environmental issues and problems and is solutions oriented.<sup>15</sup>

Roots of Success has been adopted widely and is used in prisons throughout the United States. It has been customized for other types of corrections institutions (for example, jails and juvenile facilities) as well as for reentry programs, high schools, job training programs, and other settings. In prisons, one of the most powerful and unique aspects of the course is that it is taught by incarcerated individuals who are trained and certified to teach the curriculum. Roots of Success instructors and students report that this approach to teaching leads to classroom interactions unlike any others in prison. For example, experience has shown that, within a very short time, incarcerated individuals who have been hostile to one another outside the class are willing to sit and learn alongside each other, setting aside their gang, religious, and other affiliations.<sup>16</sup>

Environmental education is an ideal subject for education in prisons. The environment is a universal topic—everyone lives in a place and interacts with the built environment, natural resources, and the weather on a daily basis—but one that may have been invisible to most students before the class. Roots of Success instructors and students take what they learn in the classroom and apply it in their everyday lives, proudly sharing, for example, how they have helped family members reduce household energy costs by conveying new knowledge about how to conserve resources. As Roots of Success instructor Cyril Waldron explains:

[W]e are not only bringing a new world to our students but are introducing them to the world, a world they never knew existed, by exposing them to concepts that were previously foreign to the vast majority of them. It is not that they do not have the aptitude or attitude to learn, but have been denied the opportunities. These previously unreachable students can no longer use that as an excuse because they have been touched by the gospel of sustainability.<sup>17</sup>

## Transformation and Opportunity in Prisons

The challenge to support environmental education in prison is also a call for mutual transformation. For incarcerated individuals, environmental education and practice can contribute to both redemption and healing. Imprisonment

often results from two violations of the social contract: 1) in which a citizen has violated people or property, and 2) in which society failed to ensure a citizen's basic human rights. While incarcerated, many individuals seek opportunities to redeem and heal themselves, and environmentally focused programs can provide a venue for both. As one inmate at Santa Clara County Jail in California observed, "Being in jail is sorta like being on one of my combat tours. Working in the landscape program definitely helps me escape the environment, and puts me at ease and relaxes my mind, and takes me away for the few hours that we're working, lets me feel like I'm on the streets [out of prison] again. . . . I am happy to give back."<sup>18</sup>

To do this work successfully, prisoners must be afforded trust and opportunity so that they can build a sense of safety—what the Universal Declaration of Human Rights calls "security of person." Building a sense of well-being requires basic physical safety as well. Prison administrators affirm that SPP programs and Roots of Success classes reduce violence and increase safety within the prisons, and preliminary measures of inmate behavior have reinforced these observations. Collaborative, meaningful work itself can be healing, offering all of the positive benefits that humans require to flourish: positive emotions, engagement, relationships, meaning, and accomplishment.<sup>19</sup>

Researchers have tied positive environmental attitudes to greater prosocial behavior, and prosocial behavior is key to success in society. There is growing evidence that environmental programs for inmates are therapeutic and reduce recidivism. The Insight Garden Program, now offered in three California state prisons, uses a restorative justice model to talk about gardening principles and design, while at the same time cultivating personal integrity, accountability, emotional intelligence, relationships, and other valuable life skills. The flagship garden program—at San Quentin State Prison north of San Francisco—boasts a low rate of recidivism among participants following their release.<sup>20</sup>

Since 1989, the Horticultural Society of New York has provided the Horticultural Therapy Partnership to prisoners at Riker's Island, one of the largest jail complexes in the world, housing an average of thirteen thousand inmates daily. Through the program, incarcerated students design, install, and maintain a one-hectare area of landscaped and productive gardens, and, upon their release from prison, they have the option to join the GreenTeam, a vocational internship program. An analysis of the program showed that one- and three-year reconviction rates among participants were significantly lower than among all comparison groups. The restorative benefits of nature in other institutional environments, such as workplaces and hospitals, has been well

established, and connection to nature also has been shown to reduce violence in a maximum-security prison environment.<sup>21</sup>

Education, in and of itself, has been shown to reduce recidivism more than any other kind of intervention. Those who are afforded education while in prison have substantially better chances for employment post-release, and also for avoiding criminal activity and a return to prison. Since 95 percent of incarcerated individuals in the United States are released and re-enter communities, their ability to access opportunities and productivity is in everyone's best interest.<sup>22</sup>

## Strategies for Inclusion

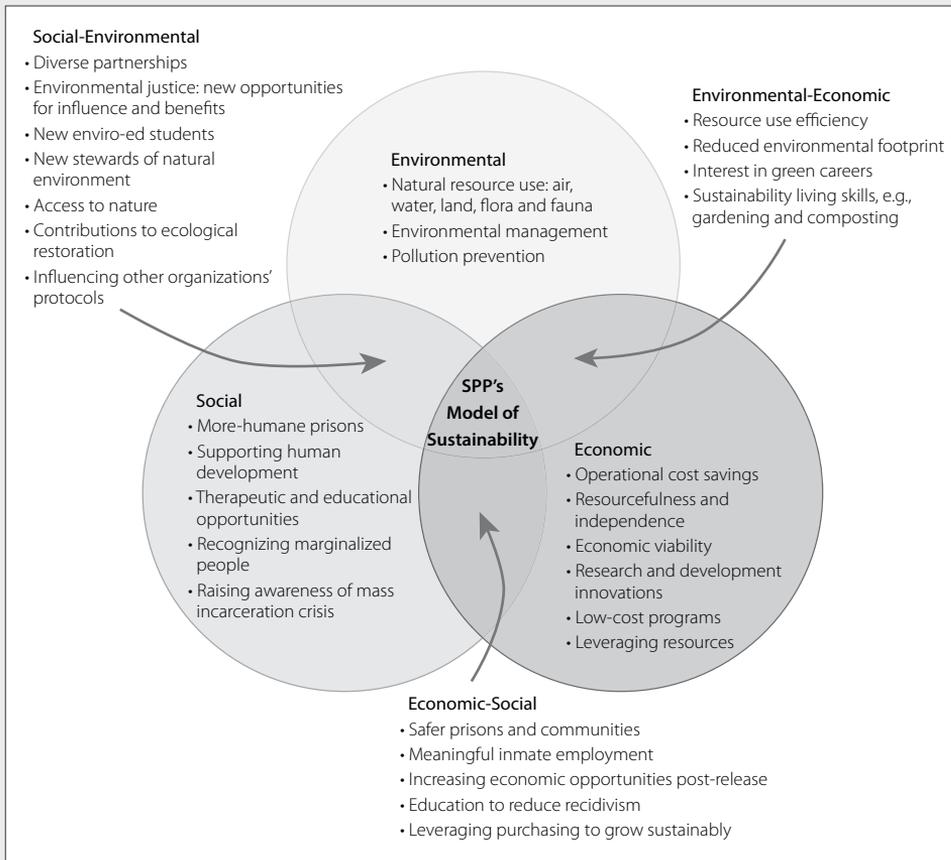
An inclusive approach to environmental education and action requires substantial effort and collaboration, but it is well worth the work. Among the strategies that will bring the greatest likelihood of success are:

- *Making programs accessible to new partners.* Think creatively and bravely about who has not been included, and how to best attract and welcome them as allies. Much more must be done to include underrepresented individuals and groups, particularly those from communities that are disproportionately affected by environmental problems.
- *Finding common ground.* Ask everyone in a group to share needs, interests, resources, and limitations. Ask lots of questions, and reflect back what others say. Point out areas where it sounds like interests and capabilities overlap—if any of those resonate in the group, then that is the topic to pursue further.
- *Considering how everyone can benefit.* How can programs improve partners' and students' lives? What do they want and need? Ask for their feedback in multiple ways—including anonymous submissions—and take action on their input. For example, visitors to prisons have learned that escaping the noise and constant crowding is an acute need for many incarcerated people. In Iowa's Correctional Institution for Women, landscape architects held workshops for incarcerated women and gained their input on the design for healing gardens at the prison. The gardens have become treasured areas of refuge for study and contemplation.<sup>23</sup>
- *Agreeing to shared values.* Motivation is based largely on values and beliefs. Discuss each partner's values, and look for areas of overlap. In SPP, partners accept a definition of sustainability that encompasses three spheres:

environmental, social, and economic. (See Figure 19–1.) While each partner may place greater or lesser emphasis on each sphere, all have agreed to respect and consider all three, as well as how they overlap and complement each other.

- *Committing to shared principles.* Codify shared values to guide program planning and day-to-day operations. SPP’s work is framed by five “essential components” that are accepted by all partners and SPP Network sites;

**Figure 19–1. The Three Spheres of Sustainability as Practiced by the Sustainability in Prisons Project**



briefly, they are: 1) partnerships and collaborations with multiple benefits, 2) bringing nature inside, 3) engagement and education, 4) safe and sustainable operations, and 5) evaluation, dissemination, and tracking. To make explicit that environmental education programs in prison are not to exploit or otherwise abuse incarcerated partners, consideration of their needs and wants is woven throughout the essential components.<sup>24</sup>

- *Asking for ideas and input.* Routinely ask all stakeholders for input to improve programs; every person has expertise and perspective that could advance the shared work. Since the first in-prison ecological conservation program was established as part of SPP in 2009, incarcerated technicians have helped develop and improve propagation protocols for dozens of native plants, many of which had never been cultivated previously. At Lovelock Corrections Center in Nevada, incarcerated men grow sagebrush in a multi-state program managed by the Institute for Applied Ecology. One sagebrush technician refined techniques for transplanting and thinning the seedlings, carefully tracking and documenting results. His protocols show higher rates of survival and will translate into improved restoration of greater sage-grouse habitat.<sup>25</sup>
- *Recognizing and celebrating contributions.* In SPP programs, members of the staff cultivate a culture of thankfulness and mutual recognition. They frequently publish stories on individual and program successes. In the Roots of Success program at Stafford Creek Corrections Center in Washington State, every graduating class is invited to a graduation ceremony with speeches from class representatives, instructors, prison leadership, and special guests. These events are outpourings of admiration for individual and group accomplishments, commitment to the program, and environmental empowerment.<sup>26</sup>

There are numerous reasons to increase environmental education and SPP-type programs in prison settings. While a punitive model of incarceration used in the United States has proven ineffective at reducing crime or rates of imprisonment, education is rehabilitative. Environmental education programs have improved quality of life in prison and have energized environmental activism in people outside the environmental mainstream. In addition, these initiatives have significant environmental and economic benefits as correctional facilities reduce their resource use and produce environmentally friendly goods. At a time when the United States faces enormous environmental challenges and a criminal justice crisis, inmates and staff in prisons must be supported and empowered to play key roles in environmental and social change.

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## Chapter 19. Sustainability Education in Prisons: Transforming Lives, Transforming the World

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## Chapter 20. Bringing the Earth Back into Economics

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