

THE SUSTAINABLE PRACTICE ASSP's Environmental Practice Specialty

By Richard Olawoyin

A refreshing surge in technological innovations is changing our understanding of contemporary economic transformations and the associated environmental challenges. Global economic growth drives resource scarcity and the emergence of environmental issues. Thus, modern economic growth is inspiring the need to investigate potential environmental technology impacts on sustainability, renewable and nonrenewable energy performance, and novel innovative technology on green transformation process.

Nearly 70% of toxic waste and flooding sites in the U.S. are located near low-income housing and communities of color (Bergman, 2019; Dearen, Biesecker & Kastanis, 2017). Racial animus and the propensity for early exposure to vulnerable environments degrade human capital and depress lifetime earnings for a disproportionate number of black Americans and other minority groups, with a projected risk of about 459,000 job losses than white Americans due to industrial automation (Baboolall, Pinder, Stewart et al., 2018; Manduca & Sampson, 2019). The inhibiting effect of the wealth gap will cost the U.S. economy about \$1.5 trillion of the projected GDP by 2028 (Baboolall et al., 2018). Financial inclusion is an essential link between economic opportunity and sustainable environment outcomes (Furusawa, 2016).

COVID-19 has delivered unexpected environmental gains such as cleaner air and water, lower toxic emissions, and a relief for wildlife. It is crucial to capitalize on these gains and continue to dialogue on appropriate environmental efficiency and effectiveness measures that will facilitate policy making and balance economic and social development in the quest of building a more sustainable society. Proactive environmental policies and strategies ensure a win-win with improvement in both environmental and economic outcomes where the adoption and implementation of innovative solutions lead to harmonization with other resources in the value chain.

Policies and actions designed to promote the conservation of the natural environment, enhance pollutant disposability and optimize output essentiality are positive outcomes of sustainable environmental practices. Hence, environmental



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professionals, sustainability analysts, policy makers, technology developers and technology adopters play critical roles in:

- providing the regulatory framework, contributing to the reduction of specific environmental impacts;
- facilitating dialogue surrounding the development and application of novel, enhanced technologies;
- promoting adequate social conditions that stimulate and hasten the successful adoption and implementation of these technologies as a top priority in the changing world.

Technology provides an amenable solution to tackle these issues helping to make the environment healthier, while ensuring that all communities have equal and adequate access to environmental protection programs.

There are numerous benefits from these innovative and inspiring technological advancements, which include:

- autonomous and connected vehicles for safer travel and route optimization in all communities;

- hydrogen in the energy transition with affordable hydrogen-powered fuel cell vehicles;
- electric public transit systems and electric trucks that reduce emissions;
- Google cars mapping air pollution and estimating the health effects in real time;
- use of the Industrial Internet of Things to manage energy expenditure and reduce emissions in smart factories;
- smart agriculture in which sensors help to modulate the amount of chemicals on the field and the chemical migration;
- wearable bracelets for tracking daily chemical exposures;
- drone technology used to vaccinate endangered species;
- space solar power and carbon, capture, utilization and storage technologies;
- cheap long-term energy storage;
- 3D printing technology for hazardous materials elimination and substitution;
- blockchain technology for improving accountability and sustainability across the supply chain networks with intentional focus on minority communities;
- smart policies, contracts documentation and reporting of impact assessments.

Everything around us (in our environment) is in the value chain. Technology is helping us understand the impact on the environment better than ever before, resulting in sustainable ecosystem stewardship, which will help maintain a healthy environment that accommodates social change in a robust global economy.

Groups around the world are advancing the course of posterity and prosperity in efforts to advance this environmental agenda, particularly after the excruciating impact of the COVID-19 pandemic. Solutions to local and global sustainability challenges are developed to benefit all, when we connect and share. When practitioners, specialists, scientists, students, engineers, innovators, teachers, business owners and all stakeholders come together, great things happen.

For ASSP members, our Environmental Practice Specialty is an important avenue through which to leverage the connection between environmental solutions, safety and health knowledge, and job creation. The practice specialty provides an avenue for our collective efforts to yield productive outcomes. The group

is stronger with your support, working together to contribute to taking actions across scales that can help shape the future rather than focusing on bringing back the past or on attaining perfection. We can achieve this through empowering knowledge sharing that can affect the national regulatory framework through awareness of the value of human-environment interactions.

As we transition into the post-COVID-19 era, I encourage all members to think about how you can take action to get involved in environmental issues.

Engage between meetings. Environmental Practice Specialty members can join our open call meetings; it is even more important to stay in touch with fellow members between meetings and to stay current with emerging environmental trends and topics, which is now possible especially with access to many social media and virtual networking platforms. Practice specialty members can help elevate issues they encounter on the horizon that can be shared with everyone and provide feedback that will help our practice continuously improve.

Engage with strategies as they form. Strategic alliance with diverse experiences and pattern-recognition skills of experienced members would empower all to add significant value to the Society. This is possible when members are participating early during the strategy development, which becomes a shared and collaborative process in which different opinions are valued and respected. In effect, this contributes to the overall effort of the Society and make us proactive at addressing contemporary issues and providing real-time value to all members.

Actively cultivate talents. The success of every organization lies in proper planning for promotion and succession. The goal of the Environmental Practice Specialty is to move from simply engaging and monitoring talents to actively cultivating environmental practice talents. Experienced members can help to mentor high-performing members, which allows for a broader talent pool that will fill future practice specialty leadership roles and positions. Mentees gain experience through the engagement process, which creates passionate, enthusiastic successors for the continuity of the practice specialty.

Engage the environmental field. Members are welcome to participate and assume roles in specific Environmental Practice Specialty initiatives, such as clean technologies, environmental im-

provements and solutions, technology advancements initiatives, standards and regulations, and environmental risk management and control. The goal is to provide competency knowledge in a nonintrusive but collaborative way in all environmental application areas so that the practice specialty can serve as a resource for educators, professionals and the industry.

Engage on technical questions. The Environmental Practice Specialty is eager to work with its membership to explore the value of providing a platform to discuss complex strategic issues and, importantly, asking technical questions that extend beyond the strategy and agenda to a wide range of issues. The focus is not on whether members have industry experience, but whether they have access to participate on all practice specialty platforms to ask important questions and contribute to the shared knowledge.

The recognition that everyone is a peer by connecting the dots between issues, bridging disparate points, and building a functional practice group with the capacity to respond to environmental challenges as they arise is a quintessential vision of the Environmental Practice Specialty.

To future Environmental Practice Specialty members, please join us and let us connect on this environmental agenda that is nonprescriptive and all-inclusive. Being a member presents opportunities for:

- continued environmental education through programs, seminars, webinars and meetings;
- interactions with professional peers for knowledge sharing;
- peer mentoring and skills development;
- exposure to emerging environmental technology solutions;
- professional recognition and leadership development.

A special invitation to future leaders: I encourage ASSP student members to become engaged with the Environmental Practice Specialty. Here is how:

- Discuss environmental issues within your ASSP student section.
- Carry out projects on environmental topics and share your work.

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• Dedicate a paragraph in your newsletter to conveying your collective discourse and disseminate the information to your communities.

All student members of the Environmental Practice Specialty are invited to attend our open call meetings and, upon graduation, are encouraged to join us as full members.

Let us invest for impact toward our sustainable goals and promote a social contract. Our combined efforts to serve as a valuable resource for knowledge sharing, skills acquisition, continuing education, professional networking, and professional development of members are essential to ASSP's objectives of working together for a safer, stronger future.

We will continue the dialogue on how to align with the environmental agenda to support long-term value creation. This call to purpose is a call to your passion for a more sustainable environment for the species, ecosystems and the overall society. **PSJ**

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