Applying sustainability to the Army world

by Col. Maria R. Gervais

Sustainability — a word often misunderstood, because numerous definitions try to capture this elusive concept. The debate over what sustainability is — and more importantly, what it isn't — has raged for 10 years.

Many people believe sustainability includes only actions that protect the environment or reduce energy consumption. Both programs support sustainability efforts, but so do training, logistics and other mission areas. However, sustainability applies to much more.

Historically, military sustainability meant the ability to keep operating until the objective was achieved. From the environmental perspective, sustainability refers to meeting the needs of the present without compromising future resources. With the turn of the century and the publication of the 2004 *Strategy for the Environment*, the Army realized the two definitions were essentially the same.

To quote the strategy, "A sustainable Army simultaneously meets current as well as future mission requirements worldwide, safeguards human health, improves quality of life and enhances the natural environment." This definition fits with the Army's "Triple Bottom Line – Plus" of sustainability: *Mission, Environment and Community, plus Economic Benefit* and encompasses the systems thinking the Army is applying now to the concept of sustainability. Sustainability enables wise decision-making about our financial, human and natural capital resources today to ensure the Army can execute its mission 25-30 years from now.

Sound environmental stewardship remains a key component of Army sustainability. Experience shows how programs protecting natural resources are not only compatible but also beneficial to military readiness. We sustain the capabilities of our installations by implementing effective policies and practices to safeguard the environment. This assures Soldier readiness both today and in the future by stabilizing the foundation from which we execute our mission.

Acronyms and Abbreviations	
IMCOM	Installation Management Command
PCS	petroleum-contaminated soils
OACSIM	Office of the Assistant Chief of Staff for Installation Management
USAG	U.S. Army Garrison

Col. Maria R. Gervais
U.S. Army photo

Meeting our worldwide commitments will continue to put pressure on our installations to provide facilities, training areas and a quality environment essential to housing and training our Soldiers, Families and civilian work force. Simultaneously, we will continue to be challenged by community development, environmental regulations and rising energy costs that will limit an installation's flexibility to provide these core functions.

The Army's Environmental Program has evolved and transformed to meet emerging environmental and readiness challenges and also to support sustainability. Although the mission of fighting and winning the nation's wars has remained unchanged, the challenges we face as an Army are always changing.

Not since the end of World War II has transformation happened on so many levels throughout the Army, nor at such a rapid pace. To successfully adapt requires that the choices we make today consider the impacts on the future.

In the past few decades, we learned some hard lessons about sustaining the environment. Now, the Army's culture is changing from one focused strictly on compliance to one of taking proactive steps to preserve natural and cultural resources.

Sustainability awareness now resides in every facet of our installation and unit operations. It is becoming fully integrated into planning efforts across all mission areas, from installation to unit operations, from industrial operations to live-fire training, and from housing areas to landfills.

The sustainability initiatives taking place at the installations are absolutely amazing. Sustainable designs for our barracks and Family housing as well as our schoolhouses, training and administration facilities, and ranges are improving the quality of life, quality of work and overall efficiency of our installation's operations for the future.

Following are a few examples of sustainable practices that enhance the Army's mission.

Fort Carson, Colo. – Fort Carson is building the largest solar array of its kind in the Army. The post also purchases Renewable Energy Certificates that offset about 28 percent of its electric purchases and financially support the generation of more renewable energy in the local community.

Fort Gordon, Ga., and Fort Polk, La. – These installations use geothermal heat exchange, which uses 30 to 60 percent less energy than conventional means, to boost air conditioning in the summer, provide heat in the winter and heat water throughout the year. Geothermal heat exchange is used in more than 310 Residential Community Initiative houses at Fort Gordon and more than 1,200 buildings at Fort Polk.

Fort Hood, Texas – The installation analyzed waste streams, and saved millions of gallons of water and recycled more than a million gallons of hazardous waste including oil, fuel and antifreeze.

Fort Bragg, N.C. – With its mission increasing and space at a premium, Fort Bragg carried out aggressive cleanup programs to reclaim land previously deemed unusable due to land-use controls and long-term monitoring requirements. Using performance-based acquisition, partnerships and alternative remediation technology, the installation realized millions in cost savings and returned acreage to the training mission. ➤

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Fort Lewis, Wash. – Through deconstruction, which conserves both resources and expensive landfill space, Fort Lewis diverted 100 percent of the nonhazardous waste generated by a 12-building demolition project.

U.S. Army Garrison Hawaii – Army Hawaii Family Housing uses solar power to reduce water and air pollution from fossil fuel. Extra power generated is smart-metered back to the grid to benefit all Families in the community. The project will be the world's largest solar-powered community, providing about 30 percent of the community's electrical needs through photovoltaic panels.

U.S. Army Garrison Bamberg, Germany – USAG Bamberg has taken recycling beyond the installation to the community so everyone can recycle. Through this program and others, the installation achieved a recycling rate of more than 43 percent.

U.S. Army Garrison Humphreys, South Korea – A contaminated soil bioremediation "land farm" facility was constructed at Camp Humphreys as a means to treat petroleum-contaminated soils for reuse. Initially, the land farm treated about 300 cubic meters of PCS. The facility grew about 500 percent to accommodate garrison expansion and the Military Construction projects underway. Cost savings average about $200,000 per year compared to traditional disposal practices.

Fort Lee, Va. – Pollution prevention is a top environmental priority at Fort Lee, where motor pool personnel recycle 100 percent of used oil, contaminated fuel and lubricants. This effort includes 17,000 gallons of contaminated fuel and 8,000 gallons of used antifreeze.

Sustainability initiatives like these are also being practiced in both theaters of operations, where units are proactively taking steps to preserve or clean up the environment. For example, units in Afghanistan and Iraq have established recycling programs, which have reduced the impact on the environment and improved the quality of life for our Soldiers and for the Afghani and Iraqi people. These actions are a true indicator that the Army fully understands its environmental stewardship responsibilities, whether on home soil or abroad.

The Army's sustainability progress is directly attributable to grassroots efforts at installations. The value of sustainability to mission enhancement has been proven, and the time has come to apply this concept throughout the Army. To take sustainability from a grassroots effort to the next level, the Army senior leadership initiated actions to operationalize sustainability.

In January, the Office of the Assistant Chief of Staff for Installation Management formed an integrated process team to draft a campaign plan to further define what sustainability means to the Army, specifically the warfighter, and to establish lines of operation with specific roles and responsibilities. The Installation Management Command's Plans Directorate and the U.S. Army Environmental Command are active participants on this team and are working with OACISM and IMCOM leadership to institutionalize sustainability within IMCOM's transformed structure.

The first step will be to develop command guidance and goals to provide a corporate direction for this effort. We will engage the garrisons throughout the entire process to obtain the field perspective and use your vast experience.

As leadership continues to operationalize sustainability, efforts to take care of the environment and communities must continue. Sustainability will always be part of everyone's job. It is our responsibility to use Army resources effectively and efficiently so future generations of Soldiers, their Families, the civilian work force and the community will benefit from the same or better conditions than we have today.

Land, air, water and community resources are vital to both our present and future mission. We must use these resources in a manner that reflects our devotion to duty and respect for the needs of tomorrow. We must do this because it is the right thing to do, is clearly part of Army values and is the only way we can ensure the future readiness of our Army.

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Be ready for LEED 3

by Joanne Qualey

The U.S. Green Building Council launched version 3 of its Leadership in Energy and Environmental Design for New Construction April 27, Projects will no longer be able to register with USGBC for execution under the current version 2.2 after June 25.

Version 3 includes a revamping of the LEED point structure with increased emphasis on energy and carbon dioxide reduction, updates to baseline criteria and introduction of new prerequisites. The Office of the Assistant Chief of Staff for Installation Management will evaluate the new rating tool and issue Army policy and funding guidance on it later this summer.

All Army fiscal year 2012 projects will need to be programmed based on this forthcoming guidance. Program managers should plan to use LEED-NC Version 3. Meanwhile, OACSIM has agreed to execute all FY 2009, 2010 and 2011 Army Military Construction projects that were budgeted under LEED-NC Version 2.2 using that rating tool.

This decision means these projects must all be registered under version 2.2 before USGBC's cutoff date. The U.S. Army Corps of Engineers is undertaking this task now.

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FY	fiscal year
LEED-NC	Leadership in Energy and Environmental Design for New Construction
OACSIM	Office of the Assistant Chief of Staff for Installation Management
USGBC	U.S. Green Building Council