

The HEN Post

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Food Security, Climate Change and the Environment

by Teri Underwood, RD, MS, CD, Founder, Sustainable Diets, Climate Leader with the Climate Reality Project, Park City, Utah

The Standards of Professional Practice for Sustainable, Resilient, and Healthy Food and Water Systems (SRHFWS) is currently being developed by a HEN working group with the final paper to be published in the Journal of the Academy of Nutrition and Dietetics in Fall 2013. This article, written by one of the SRHFWS working group members, highlights one of the topic areas important to the future of SRHFWS.

Global Food Security Challenges

The global food system is expected to face several intersecting challenges in just the next few decades that will make it difficult to feed ourselves. The hungry human population, now at 7.3 billion, is expected to climb up to 9-10 billion by 2050.¹ At the same time, predictions are for a significant decline and degradation in critical natural resources required to produce the global food supply, most notably soil and water, and a shortage in arable land. Despite these ecological limits, the projection is for an increased demand for higher calorie, animal-based diets from sectors of the world's growing middle class. Climate change interjects a significant obstacle into this mix.

State of the Climate (Science)

Global atmospheric carbon dioxide, the principle greenhouse gas, is rising rapidly,² approaching the worst case scenario projection from the last report of the Intergovernmental Panel on Climate Change.³ In addition to record levels of atmospheric carbon dioxide, several additional key climate indicators are at critical levels and out of the range of natural variability that humanity has known since the dawn of agriculture and the beginning of civilization 10,000 years ago. These include global mean surface temperature, sea-level rise, global ocean temperature, Arctic sea-ice extent, ocean acidification, and extreme climatic events.⁴

One of the most visible and significant indicators of advancing climate change is the melting of the Arctic sea-ice. In the 25 years from 1980 to 2007, the Arctic sea-ice, which for most of the last 3 million years was stable, shrunk by 40%.⁵ During the summer of 2012, Arctic sea-ice extent reached historical contraction.⁷

Often depicted by the iconic polar bear, which is now endangered because of loss of sea-ice and related changes to the bears' habitat, the melting of the Arctic is not only

proof of climate change, but it could set off a dangerous tipping point. The permafrost adjacent to the Arctic Ocean is rich in carbon sediments that when digested by bacteria release methane. Scientists fear a complete thaw could release massive amounts of this potent greenhouse gas (it traps twenty times more heat than carbon dioxide)

essentially doubling atmospheric greenhouse gas concentration (the tipping point).⁸

According to a recent report about the state of the climate science, "the scientific evidence has now become overwhelming that human activities, especially the combustion of fossil fuels, are influencing the climate in ways that threaten the well-being and continued development of human society."⁴ Historical studies of human societies reveal that civilization began about 10,000 years ago⁹ in concert with the dawn of agriculture. Agriculture is essential for human societies. Agriculture is dependent on a stable climate, the climate we have had during the last 10,000 years, which is now changing rapidly.

Climate Change, the Environment, and Food Security

Never has humanity faced the food security challenges that we face today. Although the world has made progress on world food security in past decades, at present we are losing ground. Today over 2.7 billion people live on less than \$2 per day¹⁰ and roughly 1.02 billion, almost one sixth of humanity, more than ever before, are malnourished.¹¹

To solve this massive food security crisis, a recent projection of world food needs has found we need to double the global harvest by 2050 just to keep pace, largely because of a rise in human population, biofuel production, and animal-based diets.¹² The global food security chal-



(continued on page 3)



Message from the Chair

by Stacia Clinton, RD, LDN

HEN Friends,

Welcome to 2013! A new year often brings with it a new outlook and a renewed zest to take on daunting tasks lingering from the previous year. The political landscape is uncertain. Challenging discussions about the course of our nation and global health are pending. The time is ripe to take action and bring about the changes we wish to see in policy, practice, and perception.

HEN members are forging ahead, leading new initiatives to reach the food insecure, developing new resources for educators, and strengthening the existing organization to reach a broader audience. As exemplified by our lead article, written by a member of our Standards of Professional Practice for Sustainable, Resilient, and Healthy Food and Water Systems working group, HEN members are very active in educating and advocating for change.

The HEN Food Security Task Force has launched, bringing together the expertise of HEN members in support of the Academy's collaboration with Feeding America. The Task Force, chaired by Laura Holtrop, MS, RD, LD, and Alison Kaufman, MS, RD, LDN, will serve as a virtual network of experts available to develop necessary educational resources and respond to requests for expert input surrounding matters of hunger and food security for HEN and the Academy. Task Force members have already had the opportunity to contribute to numerous resources including an in-depth background on hunger for the upcoming House of Delegates meeting, and the development of a food security resource hub by the new Future

of Food collaboration between the Academy of Nutrition and Dietetics, Feeding America, and the National Dairy Council. HEN Task Force member Meg Bruening, PhD, MPH, RD, will serve as HEN's liaison to the Academy's Future of Food Program Food Solutions Working Group.

Our Science of Sustainable and Resilient Food and Water System Toolkit Task Force is hard at work creating resources that will assist in educating food and nutrition professionals about those issues most valuable to HEN members. This 20-member Task Force has been at work for over a year contributing their time to support the growth of our DPG.

The HEN Corporate Sponsorship Task Force was reignited at the Academy's Food & Nutrition Conference & Expo (FNCE) 2012 and has developed a strategic plan to communicate constructively and effectively with the Academy. The HEN External Collaborator Relationship Prospectus has provided a structured format to guide our External Relations team in promoting HEN values through responsible sponsorship. We now look to grow our relationships and showcase model businesses and organizations that embody our values.

Our Public Policy Committee has collated your names and areas of expertise in order to strategically reach out to members when opportunities arise to weigh in on key policies that look to shape the future of our profession. Public Policy Chair Sarah Trist, MS, RD, LDN provides a comprehensive perspective on the state of our nation in this edition with key steps that every RD needs to know to effect change.

Student Members are working with HEN Student Member Chair Ulrika Midner to research Dietetic Internships in Sustainable Food and Water Systems to support other student members in their search for experience in hunger and environmental nutrition.

You might say that there are tremendous challenges to be faced with the start of 2013; a national budget in crisis, rising rates of those food insecure, increasing risks of climate change, a food system gone awry, or we could focus on the many opportunities to impact change and recognize your individual place in supporting this positive momentum.

HEN MISSION

To empower members to be leaders in sustainable and accessible food and water systems

HEN VISION

To optimize the nation's health by promoting access to nutritious food and clean water from a secure and sustainable food system

THE BENEFITS OF HEN MEMBERSHIP INCLUDE:

- Quarterly newsletter with occasional CPE articles and reproducible fact sheets.
- Access to the HEN Electronic Mailing List (EML) that provides the latest information and relevant conferences.
- Subscription to the Journal of Hunger & Environmental Nutrition published by Taylor and Francis.
- Member-only access to articles and resources via the HEN Web site — www.HENdpg.org.
- Collaboration with food and nutrition professionals across the United States and the world.
- Opportunity to be nominated for HEN awards.
- Notices of related conferences around the country.
- Potential for national and international recognition when working on HEN projects.
- Eligible to vote in HEN Executive Committee election.

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lenge is magnified by a sharply rising human population, projected water scarcity for much of the globe, a declining natural resource base, particularly soil and water, and a limit of arable land.

Food production is also facing multiple environmental challenges. These include declines in biodiversity, pollution, availability of fresh water, ocean acidification, land cover and escalation of the global nitrogen and phosphorus cycle.¹³ Another significant environmental issue endangering food security is eutrophication, or excess nutrients in bodies of water, principally from over application of nitrogen-based fertilizers, now threatening our aquatic food supply, oceanic habitats, and many endangered species.

Soil degradation is a major ecological concern and a serious threat to sustainable food production. Past management of agroecosystems has substantially degraded and reduced the quality of soils worldwide. For example, mechanical cultivation, artificial fertilizer application, monocultures, and continuous production of row crops have resulted in a physical loss of soil and large decreases in soil organic matter. Inventories of soil productive capacity have found human induced soil degradation on nearly 40% of the world's agricultural land.¹⁴

The impact of climate change on food systems and food security are predicted to be widespread. Climate change is expected to affect several factors that impact food security. These include agricultural yields and earnings, food prices, food quality and food safety. Poor nations and low-income farmers and consumers will most likely suffer from these factors disproportionately.¹⁵

Global agriculture is already being affected by climate change with recent declines in global corn and wheat production.¹⁶ Global crop yields, the amount of food produced per unit of land, will likely significantly diminish throughout this century due to expected temperature increases and continuing shifts in rainfall. There is much variability in the world's changing weather and subsequent impact to agriculture, with some areas contracting and others expanding. In the tropics and subtropics, which are experiencing larger alterations from climate change than higher latitudes, crop yields are expected to decline by up to 20% by 2050. Recent studies show the yields of the three biggest crops—corn, rice, and wheat—will decline substantially in developing countries as temperatures rise and rainfall

become unpredictable. Rising costs for feeding livestock grain and less crop yields for vegetable sources of protein such as soy, millet, and lentils, will increase food prices of these commodities as well.¹⁷ In general, we should expect to see a rise in food prices throughout the world with the greatest impact felt in poor nations.

In the United States, crop yields face similar scenarios with prices for corn and soybeans rising from considerably lower national yields because of hotter and drier conditions.¹⁸

Which Way for Agriculture?

The world now faces a daunting food security challenge of doubling food production to meet increased population demands on the same farm land as we have now and to do so in a sustainable way. Additional growth of agricultural land would be ecologically unsustainable. When thinking about the task of doubling food production by 2050 to meet growing global food security needs, it is important to consider the world's land area and soil for growing crops. Of all the land area on earth, only 25% is suitable for agriculture. This is because 75% of the world's land is either too steep, rocky, cold, dry, wet, acid, alkaline, or saline for crop production. Of the 25% suitable for cultivation, 12% is now under production. Any further expansion of agriculture would pose a threat to the planet's remaining natural ecosystems and global biodiversity and hence would be unsustainable.¹⁹

In the past half century, we have seen a marked growth in food production, allowing a significant decline in the world's hungry despite a doubling of the world's population. This development has been achieved through a variety of agricultural techniques that increase the average crop yield per acre of land termed *agricultural intensification*. Although many have been fed by agricultural intensification technologies, or the "green revolution," many environmental problems have developed pointing to the unsustainability of many of the predominant agricultural practices.¹⁴ Although there seems to be a debate in the literature about how agriculture should proceed, one thing is universal—the need to limit expansion of agricultural land.²⁰⁻²² Adaptation to climate change is a given and in the agricultural sector we will need careful management to maintain sustainability and to distribute the benefits.

A big question for scientists and governments today is what approach should agriculture take to feed the expanded world in an era of climate change and dwindling natural resources? There is not uniform consensus. The world's agricul-

tural scientists and governments are now trying to come up with solutions on how to feed over 9 billion people in mid-century. Two predominant strategies that this author has seen in the literature include:

1. Shift to a more plant-based diet. It is known that if the world's populations were to become more vegetarian and to eat a plant-based diet, the need to expand cultivated land would be drastically reduced because more people can be supported per acre on a vegetarian diet. The problem with this solution is economics. Currently, the demand for meat and dairy products is increasing from a growing middle class in very populous countries, particularly China and India.
2. Sustainable intensification of land already under production. The goal is to increase crop production without adverse environmental impact and without cultivating more land.

One report from the International Assessment of Agricultural Knowledge, Science, and Technology for Development (IAASTD) highlights the urgent need for global attention to the issue now and emphasizes the need for agriculture that is sustainable. The IAASTD was initiated by the World Bank and UN Food and Agricultural Organization to determine what the agricultural agenda should be for the next 50 years. The report is the result of a four-year process which involved 100 countries, more than 400 scientists, as well as over 800 stakeholders from non-governmental organizations, the private sector and producers. Their purpose was to analyze how agricultural knowledge, science and technology (AKST) could be used to reduce hunger and poverty, improve rural livelihoods, and to promote environmentally, socially and economically sustainable development.

The IAASTD report concluded that in essence, the dominant practice of large-scale industrial agriculture was unsustainable because of its dependence on fossil-fuel based inputs, its negative impacts to ecosystems and communities, and issues of water scarcity. To achieve economically, socially and environmentally sustainable development a new agricultural model was needed. The themes addressed in the IAASTD report were: 1) bioenergy (biofuels), 2) biotechnology, 3) climate change, 4) human health, 5) natural resources management, 6) trade and markets, 7) traditional and local knowledge and

Intergovernmental Panel on Climate Change (IPCC): Established by the World Meteorological Organization and U.N. Environment Programme in 1988 to assess available scientific information on climatic change, environmental and socioeconomic impacts and evaluate response strategies. The IPCC members are experts in the field of climate change. They do not conduct research on their own but review and assess the most recent evidence on climate change. IPCC publications are prepared by three Working Groups composed of hundreds of scientists from many countries. These publications are generally recognized as the scientific consensus on climate change.

For a discussion of the major greenhouse gases and a review on climate change, check out the Summer 2007 issue of the HEN Post ⁵ in the Newsletter Archive at <http://www.hendpg.org>.

community-based innovations and 8) women in agriculture. The final report was signed by all 60 countries except the United States, Canada, and Australia.²⁰

Another recent report by the Royal Society of London²¹ recommends investment in ecosystem-based approaches, agronomy and the related sciences that underpin improved crop and soil management. The report concludes that universities should work with funding bodies to reverse the decline in subjects relevant to a sustainable intensification of food crop production, such as agronomy, plant physiology, pathology and general botany, soil science, environmental microbiology, weed science and entomology.

In addition, the National Research Council (NRC) has recently published a book on the subject of sustainable agriculture addressing the issues of climate change, dwindling resources and human growth. The conclusions from this report also acknowledge that certain "modern agricultural practices" such as fertilizers, pesticides, antibiotics, and others have led to unintended negative consequences. The report outlines practices that contribute to sustainability such as conservation tillage, cover cropping, and crop diversity/rotation and acknowledges that "alternative agriculture" or organic agriculture systems tend to be more sustainable. Examples of agricultural practices that encourage sustainability are listed in the report summary.²²

Summary

In the next three to four decades, the world's population will increase by 2 billion and it is projected that we will need to double food production to meet demands. Today we have 7.3 billion people on the planet; over 1 billion of them are food insecure. At the same time, we have multiple environmental factors testing our ability to produce more food such as water scarcity, soil degradation, loss of biodiversity and a limit in arable land. These issues are expected to intensify in the next few decades and to have a major influence on world food security. Food prices, food availability, food quality and health will be affected by these intersecting challenges and constraints. Poor nations and low-income farmers and consumers will experience food insecurity unduly in comparison to the middle class.

Climate change adds increased uncertainty to the world's food security situation and is arguably the greatest challenge to feeding the world that we face. Although multiple sectors of the food system will be affected by climate change, agriculture is the biggest concern surrounding food security.

Food and nutrition professionals need to know about the interplay of climate, environment, and food security issues discussed in this article because they affect the foods and diets that are available to Americans and people around the world. Additionally, this issue affects the food and diets that are needed to mitigate detrimental environmental, economic and climatic conditions.

We now face a food security crisis that can be characterized as a moral issue. Dietitians can be leaders in helping to effectively guide clients, patients, and the population on appropriate diets to meet nutrition needs while at the same time contributing to global environmental health and food security.

For more information on issues related to promoting a sustainable diet, visit the author's website at www.sustainablediets.com.

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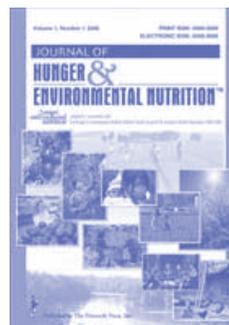
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Questions may be directed to Marie Boyle Struble, PhD, RD, Editor, at mstruble@cse.edu.

Impact of Climate Change on the Food Security and Culture of Mongolia

by Laura Beth Frank, PhD, MPH, MEd, RD, LDN, CRC, Professor and Department Chair, Nutrition and Dietetics, Immaculata University

For thousands of years, the people of the Mongolian steppes have lived in balance with their beautiful but formidable environment. Now, worldwide climate change is upsetting that balance, putting their traditional ways of life in peril.

Almost 80% of Mongolia's land consists of grassland.¹ The steppe people, adapting to a land with a short growing season and low rainfall that precludes most agricultural crops, depend upon their livestock as their primary source of food. Throughout the green seasons, which typically run from April to September, they move with their herds as many as five times yearly to reach new seasonal forage and relieve grazing pressure on the life-sustaining pasture lands. Their herds contain a mix of cattle, sheep, camels, cashmere goats and horses; each grazes at a different depth and prefers different varieties of food plants, which minimizes pasture damage. Each type of animal contributes different foods to the herders, as well as most of the materials for their clothing and shelter needs. Once winter sets in, with frozen ground and rivers, ice and snow, the animals that have not been slaughtered to provide winter sustenance for the people depend on their body fat stores to help them survive until spring.

Such an existence depends upon stability of the yearly cycle of weather and growth; any significant shift can be catastrophic. Average annual rainfall in Mongolia is only 9 inches, 90% of which is between April and September,

mostly during July and August.² Later arrival of spring rains is tied to drought, which limits the growth of pasturage; this can result in overgrazing and slow recovery of the land, or even destruction of the pastures, which in turn prevents livestock from storing enough fat for the winter. Late-arriving spring storms can kill newly-born livestock and adult animals weakened from the winter's deprivation. Even a typical winter, with temperatures that fall below -30 to -40 degrees F, is a challenge, but when the dreaded *dzud* winter hits, with extreme cold, heavy snow and ice, and winds up to 35 MPH, entire herds can be frozen in their tracks or starve when an ice crust limits access to forage, leaving the nomads without a source of sustenance.

Although vagaries of climate such as these have always been challenges to the steppe people, in recent years they have become the rule. There are disturbing indications of shifts in weather patterns that threaten this way of life. For example, mean surface temperature has increased since 1940 by almost 4 degrees F, concurrent with an increase in the number of "heat wave days" (consecutive days of temperatures above the average);³ permafrost is thawing, showing an increase in temperature of 0.3-0.6 degrees F per decade, which allows increased evaporation of soil moisture as well as putting much moisture beyond the reach of shallow-rooted pasture plants;¹ and, the summer season is lengthening, resulting in increased moisture loss through evaporative transpiration.³ There

is evidence that as a result, pasture land is becoming damaged and that pastoral areas are shrinking, as desertification takes place. Accompanying these summer changes has been an increased frequency of *dzud* winters, including the consecutive years of 1999-2002.⁴ Unfortunately, drought and *dzud* tend to pair together, which did occur during 1999-2002, affecting up to 70% of the country and resulting in the death of more than 12 million domestic animals.

A more detailed exploration of this topic can be found in Clyde Goulden, PhD's chapter in *Mapping Mongolia*.⁵ Dr. Goulden, researcher with the Academy of Natural Sciences at Drexel University, has been studying climate change and its impact on the steppe people since 1995. He and his wife Tuya Goulden have been interviewing nomadic herders of northern Mongolia to learn of their perceptions of recent changes in the environment. According to Dr. Goulden, without any mention of "climate change," most herders describe changes in rain patterns, from the normal gentle rainfall to more intense rains that do not wet the soils, and hot summer days that kill pasture grasses. Herders say that pasture grass is not growing well and the weather has become more unpredictable. Their lives are more difficult now because of these changes and many say they do not want their children to become herders.⁶

Both the climate change science and the folk wisdom of thousands of years foresee a shifting world ahead for the nomadic herders of the





steppes. Since the greater part of the land of Mongolia is best suited to the low-impact, sustainable food production of pastoral nomadism, this is of great concern for the future food security of all of the country's people. As of 2006, half of the Mongolian population was directly engaged in the pastoral livestock livelihood, providing food and textile fiber for themselves as well as the remainder of the country's population. Additionally, Mongolia's economic development is very dependent on the products of the nomadic herder; livestock and livestock-based exports account for approximately one-third of Mongolia's foreign exchange income.⁷ Since much of Mongolia's food must be imported due to its limited crop-growing ability, this economic impact further threatens the country's food security.

More than 80% of the territory of Mongolia has been assessed as "highly vulnerable to climate extremes."⁸ Currently, 40% of that area has already been affected by climate change to the degree that it is more difficult for animals to graze. Since 90% of the animals' food intake comes from grazing during the summer months, this has already resulted in significant decreases in the average weight of the animals and increasing animal mortality. The affected land area is expected to increase to 70% by 2050 and 80% by 2080. The Assessments of Impacts and Adaptations to Climate Change (AIACC), whose mission is to enhance "capabilities in the developing world for responding to climate change by building scientific and technical capacity, advancing scientific knowledge, and linking scientific and policy communities,"⁸ under the direction of the United Nations Environment Program, identified specific areas of vulnerability and developed recommendations for adaptation of the pastoral livestock livelihood to current and impending climate change. The report recommends focusing on three areas: conservation of natural resources and restoration of degraded pasture land; development of livestock with increased biocapacity (ability to extract nutrients from feed) through selective breeding; and promoting a return by the herders to traditional pasture management and grazing schedules, which were disrupted by collectiv-

ization of agriculture during the long period of Soviet dominance over Mongolia. Recommended adaptation measures have been developed by the AIACC, then presented through locally-held workshops that included herders, animal experts such as veterinarians, local governors, environmentalists, and climatologists. Recommendations from these workshops were then discussed with leading scientists and students at agricultural universities, and subsequently presented to policy-makers including those

from the Ministry for Nature and Environment, Ministry of Food and Agriculture, Agency of Civil Defense, Ministry of Building and City Infrastructure, Institute of Meteorology and Hydrology and Institute of Geography. Implementation of these measures will require partnerships among all of these stakeholders as well as economic and resource support from global agencies such as the United Nations.

With its complex and fragile ecosystem already exhibiting significant damages from climate change, Mongolia can be seen as a bellwether of future climate change impacts on world food security. It can be hoped that the joint efforts of many will produce effective strategies for adaptation that may provide a model for other areas of the world coping with similar impacts, as we struggle to halt or reverse the causes of climate change.

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HEN POST DEADLINES AND SUBMISSION GUIDELINES

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Submission Deadlines

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For more specific guidelines on article format, length, referencing and additional information that must accompany articles, see the HEN Web site – www.hendpg.com. Click on Members Area, enter your Member Number, click on Member Newsletter, click on DPG Newsletter Deadlines and Submission guidelines.

Beyond Sequestration: Advocating for Programs Now and After the Crisis

by Sarah Trist, MS, RD, LDN, HEN Public Policy Chair

Sequestration is the mandatory, across-the-board cuts that will take place on March 1, 2013 if Congress is unable to negotiate a reduction of the national debt. The cuts, totaling \$1.2 trillion over the next 10 years, are to come from both defense and non-defense spending. They threaten many programs essential to the work of RDs and our clients. It is therefore crucial that we understand the implications of these cuts and take immediate action to prevent sequestration and protect health and nutrition programs.

The programs most at risk are ones that receive discretionary funding and appropriations from Congress on an annual basis. Cuts to these services will impact RDs in every area of practice. From senior meals, Medicare reimbursement, to National Institute of Health (NIH) funding, cuts will immediately impact the health and well-being of millions of Americans and have the ripple effect of costing jobs. Many non-nutrition programs that shelter our clients from food insecurity, such as the Low Income Home Energy Assistance Program and the Child Care and Development Block Grant are also on the chopping block, further exacerbating the situation.¹

Threats Beyond Sequestration

Sequestration is the most pressing issue of concern, but it is not the only one. Even if this current political crisis is resolved, serious threats to health and nutrition programs remain. During discussions on spending, a dangerous debate has resurfaced. While reductions to funding made either through a debt deal or sequestration are aimed at discretionary funding, there is renewed interest in finding cost savings from entitlement programs. Unlike discretionary funds that are appropriated annually by Congress, entitlement programs offer benefits to all those who qualify, without a set budget. Typically, federal and state governments share administrative costs and the federal government funding is provided for an established proportion of the cost. Proposals have been made to change some of these programs, including Medicaid and the Supplemental Nutrition Assistance Program (SNAP), from entitlements to block grants, a move that would drastically change their operation and reach.

Block grants were first introduced in 1966. Originally, these grants were used to create new social programs. Block grants are appropriated by Congress from discretionary funds. They use a formula to divide the funds – with states typically receiving their share of funding based on population. In turn, states administer the program as they please – creating a patchwork of program rules and standards across the country. When the federal funds cannot cover the costs of delivering the program, states must find their own funds or change program eligibility to make up for funding shortfalls.

Starting in the 1970s, proposals were made not to create new programs through block grants, but to instead take existing entitlement programs, consolidate and convert them into block grants. In 1981, President Reagan suggest-



ed Medicaid be converted to a block grant. Newt Gingrich followed suit in 1993, and George W. Bush encouraged the concept in 2003. Worried about rising Medicaid costs projected since the passage of the Affordable Care Act, Paul Ryan submitted legislation to change Medicaid into a block grant. If the proposal to make such a drastic change to Medicaid were ever enacted, impact to program spending and access would be far reaching. The Center on Budget Policy and Priorities offers this analysis of impacts:

<http://www.cbpp.org/cms/index.cfm?fa=view&id=3727>

At the outset, there were strong arguments made for the creation of block grants. The rationale was that if states could administer programs more efficiently than the federal government, more funding could be spent on programming. Studies conducted to quantify the cost savings believed to be associated with the state administration of programs through block grants offer mixed results.² While some savings may occur at the state level, these savings are typically passed on to the federal government. Generally, it is very difficult to untangle savings to the federal government from increased costs to the states in administration.³

By allowing states to manage funds and create state-specific guidance, it was assumed that state and local governments would better understand the needs of their populations

and could therefore use the flexibility these grants provided to better target services.⁴ In a review of block grants conducted in 1996, the Government Accountability Office (GAO) found that while some states did make efforts to target the neediest population in their state, this was also an opportunity for new inefficiencies and mismanagement of programs.²

The history of block grant funding raises the concern that any program converted to a block grant would be at risk for funding loss. Programs appropriated through block grants are more easily cut than entitlements, which require a change in regulation to alter eligibility. Reductions in block grants force state governments to find funding to make up the difference or cut benefits. Should a funding cut to a block grant occur in a financial downturn, a state would be hard-pressed to make up the difference.

While block grants offer states the flexibility to target their programs to identified populations in their state, entitlement programs are structured to set national priorities for program targeting and, more importantly, ensure that funding is available for those populations. For example, in the National School Lunch Program, homeless children and children in foster care are categorically eligible to receive free meals. If nutrition and health programs were converted to block grants, states could no longer guarantee services to the populations previously identified as in the greatest need.

While categorical eligibility is important to program access, losing this targeting tool hurts the efficacy of more than the single program that was altered. Many assistance programs use data already collected to aid households in accessing a wider range of services that can help leverage the benefits of the program. In every state, state and local governments are required to work together to identify those households receiving SNAP or TANF (Temporary Assistance for Needy Families) benefits who also meet eligibility requirements for school meal programs. Many local jurisdictions have taken on the project of "reverse certification" by sharing this data, with household permission, with other state agencies to help households find complementary services including SNAP or WIC (Women, Infants, and Children). Program changes that eliminate entitlements start shredding the new links that are finally being forged in America's weak safety net.

(continued on page 9)

A Dietetic Student's Experience in India

by Amber Noterman, Undergraduate Research Assistant, Department of Food and Nutrition, Iowa State University Extension and Outreach

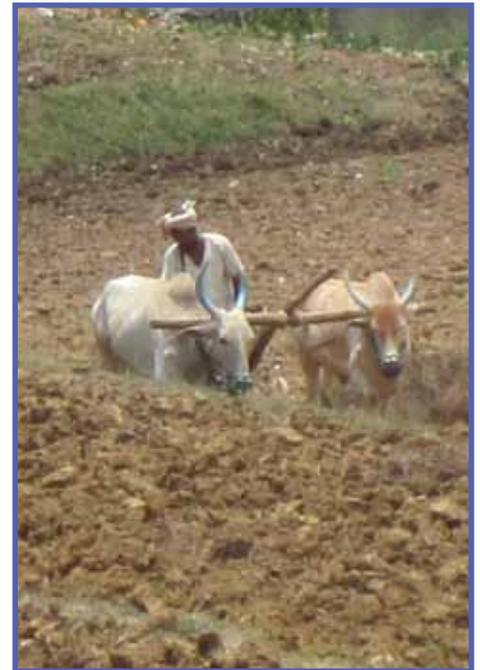
This past spring, from May 9 to June 4, 2012, I participated in the Iowa State University (ISU) Study Abroad experience, "Food, Nutrition, and Health: Service Learning in India." Along with 15 other students and two faculty members, I travelled to Bangalore, Dharwad, and Bijapur, and nearby villages in the state of Karnataka, India.

Working with students, professors, and extension staff at the University of Agricultural Sciences (UAS) Bangalore and Dharwad, we practiced a needs assessment method called participatory rural appraisal (PRA). In collaboration with villagers, we used PRA techniques like community mapping, transect, seasonal calendar of disease, and historical (dietary) timeline to create visual representations of village resources, needs, and perceptions using local materials such as chalk, sticks, and stones. From the data collected via PRA methods and twenty-four hour dietary recall surveys, we designed and presented nutrition-related educational activities for children, pregnant women, and older adults, and then received feedback and answered questions from community members.

One major lesson I learned from this experience was that in rural India, diet heavily de-

pendent on age, occupation and socioeconomic status. The majority of food was grown locally, often by the family eating it. When preparing educational activities, we had to consider not only nutrition, but also the cost of food and the ability to grow it locally. If the food was a commodity, such as milk or eggs, it was often perceived as too valuable to feed family members rather than sell for profit. Practicing PRA and nutrition education taught me the importance of perceptions and beliefs when designing effective health programs and interventions.

Another lesson I learned in India was that in rural villages growing food sustainably and locally was a necessity, not a luxury. I toured the UAS Bijapur campus grounds with professors, learning about local climate, plants, and sustainable agriculture techniques. UAS Extension was working with farmers to make use of limited



natural resources with tools like vermiculture (worm composting) and nutritious crops, such as ragi (finger millet) and sapota (fruit trees), which required less water and little or no chemical application. This experience changed my views on international food security and sustainable agriculture, showing me that local grassroots efforts can effectively impact health and quality of life in rural areas.

Along with practical lessons, traveling to India introduced me to a vibrant, diverse culture. I gained friends and colleagues at universities in three parts of Karnataka. UAS students in Dharwad called me “didi,” an affectionate term meaning older sister. I learned a few words in a local language, Kannada. I sipped tea with UAS faculty at a roadside chai wallah (tea stand). The connections I made in India introduced me to new educational and career paths in extension and outreach. I was fortunate to participate in nutrition-focused international service learning during my junior year. The experience broadened my perspective and focused my interests in community, international, and older adult nutrition as I prepare for an internship, graduate school, and my future career.



(Beyond Sequestration: Advocating for Programs Now and After the Crisis continued from page 7)

TAKE ACTION

In January, we rang in a new year with a new Congress. Over a third of the members of the House have been in office four years or less. Many bills important to our profession (Farm Bill, Older Americans Act, Ryan White Act, Child Nutrition Reauthorization) are omnibus bills that new members have no experience with. These representatives need to be educated by you, their constituent, on the programs in their communities and the impact they have.

- Educate yourself about sequestration, which poses the most immediate threat to health and nutrition programs. Visit the Academy’s Toolkit on Sequestration, which offers valuable resources on the topic. <http://www.eatright.org/Members/content.aspx?id=6442473468>
- Learn about the impact of funding cuts to your State in Senator Harkin’s report sequestrations impact on non-defense jobs and services. Share what you learn with your representative. <http://www.harkin.senate.gov/documents/pdf/500ff3554f9ba.pdf>
- Start building a relationship with your representative early. Begin educating them about the impact and importance of these health and nutrition programs before the big debate starts.
- Learn their positions on issues and help them see why these programs are important to their values. At one time, most of the nutrition and health programs we’re fighting to preserve enjoyed bipartisan support.
- Educate their entire staff. Meetings and interactions with a representative’s staff are at least as helpful as meeting with your representative. These are the people who will often research and present information to your representative. Let them know they have a resource in you.
- Sign up for Eat Right Weekly and stay up-to-date on issues important to our profession. <http://www.eatright.org/publications/eatrightweekly/Default.aspx>
- Participate in Action Alerts from the Academy’s Grassroots Manager. <http://www.eatright.org/Members/actioncenter.aspx>
- Join our database of experts! Share your areas of expertise with HEN leadership to help us respond to opportunities to offer comment on policy and Academy issues. If you are interested in joining our list, please e-mail me at sarah.trist@gmail.com.

The health and nutrition programs under fire in DC are important to the practice of every Registered Dietitian. These programs are essential. Many were established when our country faced hard times and difficult decisions about our priorities. As we approach balancing national needs, these programs require protection and reframing to garner the bipartisan support they traditionally enjoyed. Start 2013 off right by taking a stand to protect these programs.

1. Harkin, Tom. Under Threat: Sequestrations Impact on Nondefense Jobs and Services. July 25, 2012. <http://www.harkin.senate.gov/documents/pdf/500ff3554f9ba.pdf> Accessed January 14, 2013.

2. U.S. General Accounting Office(GAO). *Block Grants: Characteristics, Experience, and Lessons Learned*. GAO/HEHS-95-74, Feb. 1995.

3. U.S. Department of Agriculture Economic Research Service (ERS). How would Rural Areas Fare Under Block Grants? *Agriculture. Issues in Agriculture and Rural Finance*. Information Bulletin No. 724-03 April 1996.

4. Finegold, K, Wherry, L, Schardin, S. *Block Grants: Historical Overview and Lessons Learned*. *Urban Institute: New Federalism: Issues and Options for States*. April 2004; Series A, No.A-63.

HEN Announces Scholarships for Student & International Members

The Hunger & Environmental Nutrition Dietetic Practice Group (HEN DPG) is proud to announce the provision of three scholarships, the **School-to-Farm Program Joraan Forbord Memorial Scholarship**, the **Dr. Robert E. Putz Memorial Scholarship** and the **International Scholarship** for interested HEN members.

All scholarships provide assistance to those students and international members involved in hunger and environmental issues and are awarded in the spirit, passion, and commitment our HEN members and their families continue to provide.

All applications and further instructions can be found on the HEN website at <http://www.hendpg.org/hen.cfm?page=scholarships>. The deadline for submission is February 28, 2013, and winners will be announced on March 15, 2013. Please e-mail completed applications or questions to Elizabeth Vukovic Gartlan, MS, RD, Awards Committee Chair, at Elizabeth.gartlan@ag.state.nj.us and Katy Lawson, MS, RD, CD, Award Committee Member, at kathryn.lawson22@gmail.com.



The School-to-Farm Program Joraan Forbord Memorial Scholarship:

The HEN DPG School-to-Farm Program connects the Academy's members who are farmers and growers with dietetic students and interns seeking volunteer experiences related to HEN's Vision, Mission, and Definition of Sustainability. HEN will provide a reimbursement scholarship to a HEN DPG Student member in order to support the travel expenses for participation in this program.

The son of HEN DPG Past-Chair Mary Jo Forbord, RD, Joraan Forbord lost his battle to cancer at the age of 22. Joraan was an inspiration to those who knew him, enjoying every day as he grew into a young man with a love for nature and his home at Prairie Horizons Farm. The HEN DPG honors his life and the dedication of the Forbord family to our mission with this annual scholarship.

Applicant Criteria:

- Currently a student member of the HEN DPG.
- Have identified a volunteer opportunity through the HEN DPG School-to-Farm Program.
- Submit a completed application by the deadline accompanied with one letter of support.

For more information on the School to Farm program, please see the HEN website at <http://www.hendpg.org/hen.cfm?page=farm-to-school>.

The Dr. Robert E. Putz Memorial Scholarship

The HEN DPG awards a reimbursement scholarship to support a HEN student member's attendance at a conference that will further their knowledge of conservation or the environment.

Robert Putz, PhD spent his career with the U.S. Fish and Wildlife Service, beginning as a fisheries researcher and ultimately serving as Regional Director in Alaska and Associate Director for Refuges nationwide. Upon retirement, he worked with The Conservation Fund, leading the effort to protect 300,000 acres on Kodiak Island, Alaska and 15,000 acres in Canaan Valley, West Virginia.

Dr. Putz started the Conservation Fund's Freshwater Institute and provided the vision and inspiration for the U.S. Fish and Wildlife's National Conservation Training Center. Truly a "Friend of HEN," Dr. Putz instilled his values of conservation and environmental stewardship in his daughter, Barbara E. Hartman, MS, RD, LD, who has been a leader in the HEN DPG and advocate for access to nutritious food and clean water from a secure and sustainable environment.



Applicant Criteria:

- Currently a student member of the HEN DPG
- Submit a completed application by the deadline accompanied with one letter of support.

HEN International Scholarship

The HEN DPG awards a one-year paid membership to both the Academy of Nutrition and Dietetics and to the HEN DPG to an RD who is working internationally in the food security or sustainable food systems arenas. One scholarship in the combined amount reflecting the dues costs for Academy and HEN membership will be awarded each year.

Applicant Criteria:

- Currently eligible for Academy of Nutrition and Dietetics membership
- Currently working internationally in the food security or sustainable food systems arenas.
- Submit a completed application by the deadline accompanied with one letter of support.

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