The effects of this year’s drought in California are being discussed in both statewide and national media. California produces vegetables, fruits, nuts and dairy products for most of the country and for international export. Debate rages about what foods use the most water, what products will be most affected and how consumer food bills will increase. One of the populations most seriously impacted by the reduction in planting but least discussed is the farm worker population.

Farm laborers are already one of the most vulnerable sectors of the population and the drought this year will put them even more at risk. The average annual income for a farm worker is $13,800. This places many farm workers at risk for hunger, poor housing and subsequent health impacts. In some rural California communities that rely almost exclusively on agriculture for work, unemployment rates are already high, even at peak season.

With the idling of land and the subsequent reduction of farm output expected from the current water situation, we can expect job losses for farm workers. Some farmers are predicting a total loss of their entire income for the year. They may go into debt, may cut their costs and reduce their production, they may even take second jobs, but unless they are forced to sell their property, they probably won’t become jobless.

An economic study of drought in Australia noted that reduced production from farms has the biggest financial impact on farmers. But it also has a negative impact on farm employees, farm machinery suppliers, chemical suppliers, seed suppliers, stock agents and contract workers. These losses can influence the local economy indirectly, with a drop in consumer spending. But the impact on farm employees was greater than the impact on these other sectors of the economy.

Since California started measuring rainfall in 1849, 2013 was the driest year on record, some say in 500 years. Because this is an anomaly, forecasting the effects is problematic. This paper will focus on the forecasts of job losses in agriculture as a result of the 2014 drought and the results of these losses.

Economic Losses
The California drought in 2009 resulted in an estimated 269,000 acres of cropland idled, $368 million in lost farm revenues and total reduced economic output of $796 million, according to a study from the University of California at Davis cited by Wade. Nearly 10,000 jobs were lost.

California currently has nine million acres of irrigated crop land, five million of which are in the San Joaquin Valley and 600,000 in the troubled Westlands Water District. Currently in Westlands Water District one-third of those acres remain unplanted. To estimate job losses in agriculture, Dr. Philip Martin at UC, Davis, states that with a $1 million reduction in farm revenue, twenty to fifty jobs are lost. However, with less water, farmers shift their water use from low value crops like cotton to high value crops like melons. These high value crops located, for the most part, east of Highway 99 in the San Joaquin Valley are also more labor intensive. This shift in water use could limit the effects of water losses on farm employment numbers. Dr. Martin estimates that there will be a reduction of irrigated acres in the San Joaquin Valley from 5 million to between 3.5 and 4 million acres.

The implications of shifting water from lower value to higher value crops may result in the replacement of crops like cotton, hay and pasture to nuts, fruits and vegetables. Some idled crop land will be lost to salinization while urban growth may increase as a result of farmers trying to recoup some of their losses by sale of land. In rural cities and towns where 25-30% of jobs are in agriculture, unemployment rates will inevitably rise. Many farm
workers are from rural Mexico, with low levels of education and little hope of working in industries not associated with agriculture.

Rob Lapsley, president of the California Center for Jobs and the Economy estimates a loss of 15,000 jobs on farms and farm-related industries in the San Joaquin Valley. He thinks there will be a loss of greater than $900 million in the Valley alone. Richard Howitt, an economist at UC, Davis estimates that the water cuts will cost the region double that with 30,000 jobs lost this year.

For a clear picture of the impacts of the drought on jobs, please take a look at the info-graphic created by the California Water Coalition.

“This is a real idling of land, and there is nothing positive about it,” said Daniel A. Sumner, an agriculture economist and the director of the Agricultural Issues Center at the University of California, Davis. “It’s not fallowing — that implies a choice. This is not like North Dakota, where we know it’s going to get better. We’re talking either spending huge sums on bringing water in or thousands of acres lost.”

What this means for farm worker families and communities

In the 2010 census, Mendota (Fresno County) had 97% Latino population with 46% living in poverty, 90% speaking a language other than English at home. In the 2009 drought, unemployment in Mendota was 40%. The majority of Mendota residents work in agriculture and this year, the mayor of Mendota expects more than 50% unemployment. What are the impacts of a severe drought on rural communities already suffering from chronic poverty?

It’s clear that job losses will be high for farm workers. Drought impacts will be seen in multiple ways. This article will discuss just three: poverty, hunger and access to potable water.

Poverty

The highest poverty rates in California occur in the most agriculturally productive communities in Fresno County (the most productive agricultural county in the US), Stanislaus County and Kern County are ranked in the top five poorest communities in the US.

It is estimated that 400,000 farm workers live and work in California. About half of them are undocumented. This sector of the population is at great risk for increased poverty with drought and job loss.

In California, even while working, many farm workers live in substandard housing that is overcrowded. The California Agricultural Workers Health Survey completed by CIRS in 1999 found that overcrowding is common and extreme overcrowding is also prevalent when multiple families share an apartment or house. Nearly half of all participants reported living in a residence where the number of persons per room (excluding bathrooms but including kitchens) was greater than one and a quarter lived in a residence where the number of people per room was greater than 1.5.

Many hired farm worker families meet the income test for needs-based government assistance programs offered by federal and state agencies. However, less than one percent actually received payments from welfare programs. Many who meet the income tests fail to qualify because of lack of documentation.
In Governor Brown’s drought relief package, $47 million of the $687 million in funding is set aside to provide food and housing assistance for residents of drought-stricken communities. The bill authorizes rental vouchers for people rendered homeless, or at risk of becoming homeless, due to unemployment or other economic hardship resulting from the drought.

Hunger
Farm workers already suffer food insecurity at higher rates than the general public. In a 2007 Fresno study, CIRS found that 45% of the 454 workers interviewed were food insecure. This study was completed before the economic downturn when the national average for food insecurity was 11% for the general population. In the 2009 drought the Fresno Community Food Bank distributed 9 million pounds of food to residents of the county. Distribution of emergency food is expected to rise in 2014 as more people in poverty have fewer options for work. In addition to the California state drought relief package, President Obama’s aid package acknowledged the food access gap by committing $60 million to California food banks through a program that purchases food in bulk and ships it to the feed the hungry. Federal funds also include funding for the set-up of 600 summer meal sites for children.

Potable Water
In early February, the California Department of Public Health identified communities in California at risk for running out of drinking water within 60 days. All of these communities were in rural areas that rely on groundwater for their needs. Compounding the risk of depleting the water supply, these rural communities are also at risk for contamination of their wells.

In 2013, 680 community water systems were identified as contaminated because of their reliance on groundwater. The issues of contamination are varied but the most common contaminants in small community water systems are arsenic and nitrate. Arsenic is naturally occurring and derived from subsurface geology but nitrate has percolated downward from surface applications of agricultural fertilizers. Arsenic was found in water systems throughout the state while nitrate was located primarily in agricultural regions. The state water resources board noted that rural community water systems are smaller than urban counterparts with the vast majority relying completely on contaminated groundwater to source their drinking water.

“Small rural community water systems, especially those that are low income and experience greater difficulty in obtaining funding solutions, tend to have more physically vulnerable infrastructure and may experience a persistent contamination problem.”

The Department of Public Health has committed to work with these impacted rural communities to identify alternative sources of water. The governor’s declaration of a drought emergency has given state water agencies authority to review and process voluntary transfers of water and water rights. But the question that remains is where will the water come from and how much will it cost?
A Sunburnt Country: The Economic and Financial Impact of Drought on Rural and Regional Families in Australia in an Era of Climate Change
Ben Edwards and Matthew Gray, Australian Institute of Family Studies
Boyd Hunter, Australian National University
AUSTRALIAN JOURNAL OF LABOUR ECONOMICS
Volume 12 • Number 1 • 2009 • pp 109 - 131

i A Sunburnt Country: The Economic and Financial Impact of Drought on Rural and Regional Families in Australia in an Era of Climate Change
Ben Edwards and Matthew Gray, Australian Institute of Family Studies
Boyd Hunter, Australian National University
AUSTRALIAN JOURNAL OF LABOUR ECONOMICS
Volume 12 • Number 1 • 2009 • pp 109 - 131

ii Villarejo, White paper

iii A community water system is a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents (California Health and Safety Code § 116395). Community water systems serve the same group of people, year round, from the same group of water sources.

iv http://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf