Can the World Continue to Feed Everyone?

Regular readers will be familiar with the fact that while the vast majority of my columns deal with Nature in the Hill Country, I do sometimes write about topics having a wider scope. This will be one such topic and it was largely inspired by a recent National Geographic article on the future of food production.

Several times in the past I have written on various water issues and have discussed the problems created by land fragmentation when larger ranches are broken up into many small "ranchettes". The National Geographic article by Jonathan Foley asks the question, "Where will we find enough food for 9 billion?"

The world population is projected to grow from the current 7 billion to 9 billion by 2050. (The population of Texas is projected to double in that time!) But the roughly 30% increase in world population will require a much larger increase in food production as the developing world becomes more affluent and demands more meat, dairy and poultry--demand is expected to double between now and mid-century.

The main focus of the article is that we can't just keep on doing things as we have been forever, which is to cut down more forests, plow up more grassland, use more water, more fertilizer, and more hydrocarbon fuel in order to produce food.

Some quotes from the article, "Agriculture is among the greatest contributors to global warming, emitting more greenhouse gases than all of our cars, trucks, trains and planes combined....Farming is the thirstiest user of our precious water supplies, and a major polluter as runoff from fertilizers and manure....As we have cleared grassland and forest for farms, we've lost critical habitat, making agriculture a major driver of wildlife extinction."

We already have, worldwide, an area about the size of South America in crops and an area about the size of Africa devoted to raising livestock. Fifty-five percent of the Earth's ice-free land area is already utilized by man, and nearly all of the rest is forests, high mountains, tundra and deserts--not suitable for agriculture.

I described in an earlier column how agricultural land itself is being swallowed up at an alarming rate for "development" (houses, roads, shopping centers, parking lots, etc.) So we have less land available for agriculture than we used to.

So, if agriculture already uses most of the suitable land area and if modern agriculture practices already create significant pollution of various kinds, what is the answer if we need to produce twice as much food in 50 years? I don't know that anyone has AN answer or that there even is ONE answer. And this column is certainly not the place to discuss any of these issues in detail. But the National

Geographic article made one point about the efficiency of food production that I found very interesting.

Only slightly more than 50 percent of the calories produced by the world's crops are fed directly to people....36 percent is fed to livestock and 9 percent goes to biofuels. Foley states, "For every 100 calories of grain we feed animals, we get only about 40 calories of milk, 22 calories of eggs, 12 of chicken, 10 of pork, or 3 of beef." Obviously, if we all became vegetarians, we could feed more people, but as less-affluent people become better off, they tend to move in the opposite direction. And as a confirmed meat-eater, I have a hard time criticizing them for wanting to do so.

These are not encouraging facts about our current situation and the future projections. It is especially concerning to those of us who place such a high value on Nature and native habitats, as I fear that Nature and the environment will be the biggest losers in the future.

My hope is that the future of agriculture as well as the future of energy and water, and many of the other problems that plague mankind will be governed by what is best for all of mankind when ALL aspects of every potential solution is thoroughly considered with all of its pros and cons. The overall environmental effects should have a very high priority in all future planning considerations, not just what is most politically feasible or economically most profitable. Or, as Aldo Leopold said, “The practice of conservation must spring from a conviction of what is ethically and esthetically right, as well as what is economically expedient.”

Hey, it never hurts to dream.

Until next time...

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