Food Security through Functional Seed Program in North Angola

by Udai R. Bishnoi

Since retirement, I have served as a volunteer on Cultivating New Frontiers in Agriculture’s Farmer to Farmer, USAID-supported programs in Kenya, Gambia, Mozambique, and more recently, in Angola. A major purpose of these volunteer programs to these countries is to improve their food security through production, distribution, use, and management of quality seed.

My recent assignment was to train 30 co-operative farmers in Soyo, Angola in seed management—multiplication, conservation, and treatment. Despite its vast land, Angola is a food-deficit country, and the value of seed is not seriously realized in food production. In fact, it was a surprise to trainees when I mentioned that “even with best soil and all required resources (farm machineries, fertilizers, pesticides, irrigation, etc.), one cannot produce food without planting good quality viable seed.” During the training, all aspects of seed multiplication, drying, storage, mini-farm seed bank development, and seed treatments were taught. All participants were enthusiastic, took notes, asked questions, and made an effort to understand what was being taught. There was one female participant among the trainees, which is rare to see in any training program in Angola.

Unfortunately, the country does not have plant breeding, variety development, and seed multiplication programs or formal seed production systems similar to those existing in North America. Therefore, there is no commercial seed sector, and farmers have no way to know the potential benefits of seed from improved crop varieties. Having realized this situation, I had to set aside my academic know-how resulting from a Ph.D. degree in seed science and technology and quickly adapted my lectures to basic functional seed programs. Thus, I focused on procuring certified seed of crop varieties from similar climates of developed or neighboring countries or by harvesting high quality seed from locally selected plants and then multiplying the desired amount of seed on the productive land of a few, but highly skilled, farmers. The seed produced this way can be sold to other local farmers at a premium price paid to the producer. Another way to boost this program is to get micro-loans for each co-operative or for a few farmers to buy fertilizers, insecticides, etc. to multiply such seed locally and return loaned money in kind (amount of seed) with adjusted interest. Seed, thus obtained by the lender, can be sold to local farmers or in the market.

The trainees were eager to follow these recommendations, but most of them lacked basic education, do not have proper farm equipment, storage buildings, and roads for transportation. All trainees expressed a strong desire to seek financial support from external donors or the Angola government for the growth of seed programs. In such situations, whatever the future holds for the program, volunteers need to find their passion, hold onto their ideas, and create a guided path for people knowing that one day their work and labor may bear fruits. Finally, as a volunteer, one needs to provide applicable training and be committed to serving the clients. Further, during my visits to several farms, I observed tremendous amounts of grassy vegetation on and around farms but no cattle or animals. Therefore, I spent two days on teaching how to make organic compost from these vegetative materials. Also, I recommended to the farmers to adopt mixed farming—rearing some animals on the farm along with crop and seed production. The animals and their products such as milk, meat, and skin can add to their household income. Also, animal excreta, if gathered properly by using straw, can be converted into high quality nutrient-rich compost. The use of compost as manure will enhance seed yield and food production, improve soil properties, and reduce use and money spent on fertilizers.

The training program, comprised of 30 members, was highly successful. These trainees were provided sustainable methods of crop production along with knowledge about seed production. If the trainees adopt these practices, I am confident that it will result in a 25 to 30% savings on fertilizer costs and may result in about 10 to 15% increase in seed and food production.

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