Urea treatment of straw in the DCA CLAP Kuchi project

In winter, almost all of the domesticated livestock in Afghanistan are fed on poor quality and low nutritious fodder. Perhaps the richest feed in most provinces are the straw byproducts that remain after harvest of cereal grains. Straw can provide carbohydrates, but is very deficient in other nutrients. Straw is mostly used during the months of fodder shortage such as winter.

Efforts have been made by the DCA CLAP Kuchi project to improve the nutritional quality of the products used for feeding the livestock. Finally, urea treatment was suggested as the cheapest and most effective means for dairy farmers to improve the nutritive value of fibrous crop residues. Urea treatment of straws was developed as an alternative for the livestock owners in the targeted provinces (Kabul, Parwan and Logar) as it increases the protein and energy content of straw. Urea treatment of straw could be adopted if grasses and other greens are not available. Straw is cheap and easily available, while the alternative fodder, i.e. concentrates, is relatively expensive. The preservation time of urea mixed straw varies from two to three weeks, depending upon the storage temperature.

Most of the livestock owners in the target provinces used to keep dairy animals to meet their milk requirement for home consumption, and only the surplus milk was sold in the market. Urea treatment resulted in increased straw intake by the livestock, and an increased growth rate, milk yield, and reproduction. It appears to be a cost-effective method and the farmers were very satisfied with the results. They reported an increase in milk yield of 0.5 liter per cow and a 25% increase in profit.