

# Koronivia workshop on improved livestock management systems 24-Nov. Climate Dialouge

The Egyptian experience : Climate Change impact on livestock

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# Climate Change challenges facing Egypt in Livestock sector

- ▶ Surging population over 100 million , with almost 96% of the population in Egypt lives on the Nile River depression concentrated in the Nile Delta which is equal to 29000 Km<sup>2</sup>;
- ▶ Population intensification and rising in demand coupled by the increase of temperature had reflected negatively on animal and agriculture sector in general;
- ▶ Urbization and loss of agricultural land;
- ▶ Drought and salinity are environmental factors that triggered the decreasing growth and productivity of plants;
- ▶ Meeting requirement strategies to enhance livestock productivity to ensure food security vs water security.

# Water Demand for Agriculture, Pasture and Forage Crops

- ▶ A gap between freshwater resources and Egypt's requirement, in the year 2000, Egypt considered as below the water poverty line;
- ▶ Diminished amount and quality of accessible water might occur attributable to adverse global climate change influence on water resources and freshwater ecosystems
- ▶ Drying of water resources can produce a state of affairs, wherever livestock have to be compelled to walk long distances in search of water, making extra stress to those animals. That would result in decreases the milk yield in dairy animals, dramatic effects on body weight in beef cattle.

# Poultry Production Sector and climate change

- ▶ 26% of Egypt's total livestock products came from poultry meat and egg production, and Egypt's livestock sector contributed 27% of total domestic agricultural production 1999 . In 2016, poultry meat production, was estimated at 148,517 metric tons, exceeded all other meats, including beef and veal, buffalo meat, sheep and goat meat, camel meat, and others;
- ▶ Broiler and layer chickens produced in tropical atmospheres faces difficulties to perform in high temperature, biochemical and physiological changes harm essential body organs;

# Animal Production Sector and climate change

- ▶ Animal production in 2018 to increment to 1.93 million head, up 4% from 1.85 million head in 2017. The government is seeking after expanded local meat production, this increase doesn't meet the increase in demand due for the population ;
- ▶ farmers are spending a lot of effort, time and investment to produce milk or meat, and they receive a small proportion of the profit—which considered one of the threats to the whole production system sustainability—,livestock is considered as security assets influencing access to informal credits and loans to aid smallholders in crises and events;
- ▶ In Egypt, the traditional system is characterized by small-herd size less than 50 head of the animal, less than 5 feddans and keep native and crossbred animals, This framework gives around 75% of milk production on the national scale.
- ▶ Milk production in small scale farms enhances the sustenance security of family members, as well as makes a few work opportunities along the dairy chain
- ▶ it is normal that Egypt would be one of the countries most influenced by the impacts of climate change

## Conclusions:

Egypt would be one of the countries most affected by the impacts of climate change. From the viewpoint of water administration, intercessions to increment agricultural profitability ought to incorporate projects to extend irrigated areas, enhance the water-maintenance properties of soil, and enhance profitability and water-utilize efficiency. To enhance production, and accordingly, farmers, population and food security are the two primary components prompting the expansion and the requirement for more developed agribusiness in irrigated farming. To avoid poverty, a mix of animal product from animals that have a good feed conversion (e.g. cattle and chickens) which is great for saving the land's esteem and adds to effective land utilize. The benefit of choosing local and regional animal products is that they contribute to supporting local farming and keeping the agricultural landscape. ( source Potential Climate Change Impacts on Livestock and Food Security Nexus in Egypt)

Thank you so much for your attention