

The situation of pastoralism in China

Report by Han Guodong, 2022

Livestock have always been an important part of China's history, transport, mechanical power and food supply, vital for supporting the large population, and especially for the herders who lived on the grasslands. For much of China's history though, the extensive grassland areas of the north and west had a low density of animals and people, who lived a largely self-sufficient existence, depending upon their livestock to satisfy most of their needs. Trade with other regions was limited to higher-value items and restricted, as transport systems were rudimentary. Not all grasslands were grazed each year and there was time for them to recover from grazing, as there was a transhumance system of annual movements by herders seeking forage for their livestock.

The grasslands of China had sustained herder households for centuries, but in the last century, the large increases in people and animals have put this major resource under increasing pressure. It is now widely acknowledged that 90% of the grasslands are degraded to varying degrees and animal productivity is low. Overstocking was encouraged as herders and officials considered more animals would result in more income, and this would support the increasing demand for food and other products from the increasing human population. There has, however, been the realisation that those past policies and practices were not delivering the results desired and that degradation of the grassland resources was creating additional environmental problems, with an increasing frequency of dust storms. As discussed throughout this book, simply increasing animal numbers doesn't result in higher incomes for herder households. A better strategy is to focus on maximising net income per animal.

The Inner Mongolian Autonomous Region (IMAR) is one of the major rangeland (64m ha) Provinces of China, where herding has been a traditional practice for millennia and has been in the forefront of developing sustainable grazing practices. The problems of degraded rangeland have been widely acknowledged, such that progressively over recent years, the whole province has been subject to partial or total grazing bans. Data on livestock numbers for the years 1947 to 2015 have been assembled from the Year Books and related sources, to investigate the changes that have occurred. Unfortunately it has not been feasible to build a consistent data set on meat output to compare with that for China.

Stocking rates have dramatically increased from 0.3 SE/ha in 1947 to 2.5 SE/ha in 2015, an increase of 8.8 times. From 1947 there was an initial steep increase to 1 SE/ha by 1965 that remained relatively constant until 1987, then increased slowly to 1.3 SE/ha by 2002, followed by a steep rise to 2.5 SE/ha by 2005, initially due to more dairy cattle, but subsequently to both beef cattle and sheep. There was a pause after 2005, then stocking rates again increased to 2015.

The longer initial period for increasing livestock numbers from 1947 until 1965, than applied for China as a whole, probably reflects the initial low population density in IMAR and effects

of migration into grassland regions. The collective period then limited change until 1987, but after that, as herders had more individual control and more people moved onto the grasslands, animal numbers rapidly increased as occurred elsewhere in China.

There were some interesting shifts in the relative changes in sheep+goats Vs cattle numbers from 1947 to 2015. Over this 68-year period, cattle numbers increased by 0.08 for each increase in sheep+goat – approximately 40% that of sheep+goats when expressed on a sheep equivalent basis. This indicates the general dominance of sheep and goats in IMAR that has become more important over time as the available grass became shorter and cattle were less able to graze. There were five phases in this interaction.

At present, a lot of pastoralists carried out rangeland conservation and higher quality of animal products policy in many areas of pastoralism in China. People adopted new technology, such as proper grazing and hay cutting, livestock raising and genetics and breeding in order to enhance the production efficiencies of rangeland and livestock. They also pay more attention to livestock products marketing to help get more benefits for pastoralism related to higher quality of animal products comparing with a crop-livestock system.





