Sustainable grazing for peatlands restoration – Ruoergai as case study
Outline

• The importance of Ruoergai peatlands
• Peatland management issues
• Restoration and results
• Lessons learned
• Impacts
Importance of Ruoergai peatlands

The largest high altitude peatlands in the world (490,000 ha) deposit 1.9 billion tonnes of carbon.
...providing and securing water for millions of people...
The 5th ranking largest pastureland supporting 22 million cattle
Peatland management issues

Degraded peatlands
3,637 km$^2$
(Pristine peatlands)
1,096 km²
Peatlands were drained for crops cultivation and mined for energy supply. Peatlands are also used for grazing livestock.
These caused a series of problems

Drying out of peatlands/lakes
(loss of water storage, biodiversity, stored carbon etc)
Serious degradation of peatlands (drainage and overgrazing)
Reduced flood control and water supply in Yangtze and Yellow rivers
Area and quality of grazing land reduced
Approach to control desertification
Our objectives aim to protect peatlands from degradation by demonstration restoration and influence government to promote wetlands conservation for people and nature.
Technique to block canals
Refilled canals
4.96 million m³ water stored
Pioneering vegetation eg, *Blysmus sinocompressus*, *Halerpestes tricuspis* colonized in sediment, and *Potamogenton pectinatus*, *Equisetum fluviatile* in water.
It is roughly estimated 22.168t CO$_2$ and 11.523t CH$_4$ ha$^{-1}$ year$^{-1}$, CO$_2$-eq is stored.
Lessons learned

Maintenance cost of dams is high
Compensation for herders in some restored sites is needed
Long term monitoring and further research are required
The demonstration of restoration greatly influenced government policies and speed up the environmental conservation actions.

Good results from restoration have trigged millions funds to ensure peatlands conservation for a longer term.

Tourism has become local community's another option and the grazing practice is changed to adapt to the emerging challenges.
Thanks for your kind attention

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