Technology Fact Sheet for Adaptation

Technologies in the animal husbandry

B.7. Sustainable Pasture Management [i]	
1. Introduction	Sustainable Pasture Management (SPM) is a climate change adaptation technology in the animal husbandry sector. SPM helps sustain healthy soils and restore degraded pastures which bring many benefits including ensuring sustainable animal husbandry, alleviating rural poverty and building resilience to major environmental challenges. Pasture degradation has already taken place to various degrees and the objective of SPM should be restore degraded land while preventing further degradation and ensuring continued ecosystem health and function.
2. Technology characteristics	Mongolia has about more than 40 million livestock in an area of 1.1 million km^2 of rangeland. Pastureland is the backbone of Mongolian agriculture. Pasture degradation and desertification are among the most serious environmental problems. In the countryside, pasture degradation is widespread and occurs in all ecosystems at different intensities. Pasture is the main source of livestock food and herders livelihood in Mongolia. Well managed pasture helps to protect the environment and natural resources and also continue to sustain ecological functions and services. Pasture degradation in the country has manifested in several ways: decreased biomass production, soil fertility decline, and desertification, fewer and more unpalatable plant species. In addition, physical damage by human activities has increased extensively. At present, about 70% of pastureland is degraded in some form. Overgrazing, off-road driving, mining, global warming, low precipitation and lack of land management skills are causing more and more problems for the rangelands in Mongolia. Thus it is becoming increasingly difficult to provide the necessary amount of fodder for the livestock that are the main source of income for more than one third of the population.
3. Country specific applicability and potential	There can be different categories of pastures depending on usage[1]: • *Otor* pasture – *Otor* is reserved pasture where herders move to when faced with a critical situation such as changing pasture, or weather conditions. They differ from seasonal moves in that they

[1]Mongolian Society for Range Management web page: http://www.msrm.mn/index.php?option=com_content&view=article&id=303%3A-2011-&catid=85%3A2011-03-25-05-27-00&Itemid=453&lang=mn

	are not regular and repeated and usually do not include the entire herd and household. This type of pasture also can be classified into smaller types. • Transit pasture which is used temporarily while animals are moving to other locations • Peri-urban pasture • Pasture for intensified livestock which is settled in a fixed location • Pasture for nomadic livestock.
4. Status of technology in country	Several projects have been implemented in the country. Pasture Law is under discussion for many years and yet to endorse.
5. Benefits and impact on the country development ✓ Economic (- Job creation; - Investment) ✓ Social (- Income generation; - Education; - Health) ✓ Environmental	Comprehensive sustainable pasture management (SPM) will conserve natural resources and thereby increase livestock productivity. All of these directly increase the nation's resilience to withstanding the negative impacts of climate change and the benefits of SPM will be widespread with producers as well as consumers. **Socio economic benefits** • Increased income of herders • Increased food security • Alleviate rural poverty • Improved livelihoods • Sustaining traditional lifestyles • Improved social sustainability and cooperation of different stakeholders **Environmental benefits** • Increased biomass and vegetation • Restored biological diversity including plant species • Sustained water sources (open and ground) • Increased soil fertility • Reduced greenhouse gas emissions • Reduced risks of natural disasters • Ensured ecological sustainability and ecosystem functions and services
6. Climate change adaptation benefits	The technology would help to increase resilience of livestock which is vulnerable to climate change.
7. Financial Requirements and Costs	In total 15,8 million US$ would be required from the government and international donors and private enterprises. Pasture Law - about 10 million US$ per year Subsidy program for pasture usage - about 5 million US$

	Capacity building of herders and related organizations – 350,000 US$ R&D of SPM – 450,000 USD
8. Institutional requirements	Pasture Law would be supportive legal framework for the technology. Central and local governments, herders NGOs and herders group lay important roles in the implementation of the technology.

[i] **This fact sheet has been extracted from TNA Report – Technology Needs Assessment For Climate Change Adaptation– Mongolia. You can access the complete report from the TNA project website http://tech-action.org/**