Pastoral risk management

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Taking risks in the drylands

Users of natural resources in drylands are used to taking risks, as the drylands are risky by nature but also offer opportunities.

Some types of risks faced by pastoralists

- **Climatic**
- **Disease**
- **Economic**
- **Security/theft**

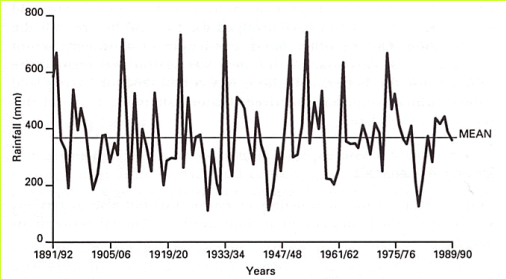
Risks are often interlinked (e.g. rise and fall of livestock prices are linked to drought)

Characteristics of climatic risk in drylands

- **Low rainfall varying in time and space**
- **Vegetation yield closely linked to rainfall**
- **Rainfall records indication of forage yield**

Example of long-term rainfall records of a location in the drylands (Namibia):

Environment (1)



Rainfall variability is an indicator for variability in forage availability.

Opportunities for livestock production in the drylands

- **Good quality forage**
- **Low disease pressure**
- **Animals can be used for transport**
- **Cross-border trade**

But also dangers, above all drought: lack of forage and lack of water

Consequences of trying to avoid climatic risks: frequency of "shortage" and "surplus" when stocking rates are adjusted to different rainfall probabilities

Level of rainfall exceeded in	mm/year	% years of shortage	% years of surplus
Mean	= 367	26	9
50% of years	> 352	25	11
70% of years	> 281	12	23
90% of years	> 203	3	64

Assumption less than 70% of planned level shortage, more than 150% of planned level surplus. (data from Windhoek, Namibia)

Management of climatic risk

- **Keeping adapted animals that can survive periods of forage scarcity**
- **Multispecies herds/flocks**
- **Following the rains: mobility (large herds favourable)**
- **Taking up contacts with other groups that live in better-watered cropping areas, e.g. exchange of manure for crop residues**
- **Buying forage (e.g. with insurance money)**

Disease risks

Generally low disease pressure in drylands.

Epidemics can spread rapidly, particularly if livestock density is high.

Worm infection e.g. at large waterpoints, where also disease transmission facilitated.

Disease risk management strategies

- Keeping adapted breeds with tolerance or resistance to external (ticks) and internal parasites (helminths)
- Avoiding contact with herds infected by a transmittable disease (mobility)
- Keeping mixed flocks/herds to reduce danger of losing all animals
- Vaccination/treatment

Economic risks

- Great variation in livestock prices: after drought, usually high, e.g. in relation to grain; during drought, low (relative value of animal liveweight to grain ranges from 1:1 to 23:1)
- Competition from cheap imports (e.g. chicken parts from EU) depress prices

Managing economic risks

- Keeping multispecies herds/flocks
- Moving livestock to better markets (e.g. coastal states in West Africa)
- Diversifying activities (e.g. investment in housing in town, in land where it can be purchased, in trade/shops)

Risks of conflicts and theft

Conflicts between

- different pastoral groups (e.g. over pastures/ water, cattle rustling)
- pastoralists and farmers (land for grazing or farming, pastures for sedentary livestock)
- government and pastoral groups (e.g. cross-border trade, allocation of land for irrigated farming on large scale, taxes)

Commercial livestock rustling

Conflict management

- Movement in larger groups, armed guards
- Acquiring weapons, ammunition and military training (e.g. Somali)
- Peace committees, traditional conflict resolution mechanism (can be tough)
- Going to police and courts

Conclusion

- Pastoralists have a range of indigenous risk management strategies, most prominent being mobility and diversification. Government & policy should support these strategies, e.g. allowing herd movements.
- Government support is needed particularly in management of severe conflicts.