



**Global Strategy**  
IMPROVING AG-STATISTICS



# Expanded Draft Outline of Guidelines on the Enumeration of Nomadic and Semi-Nomadic (Transhumant) Livestock



**NAMAN KEITA**

FAO Statistics Division

in collaboration with **Ugo Pica-Ciamarra**

Animal Production and Health Division (AGA)





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## THE ISSUE

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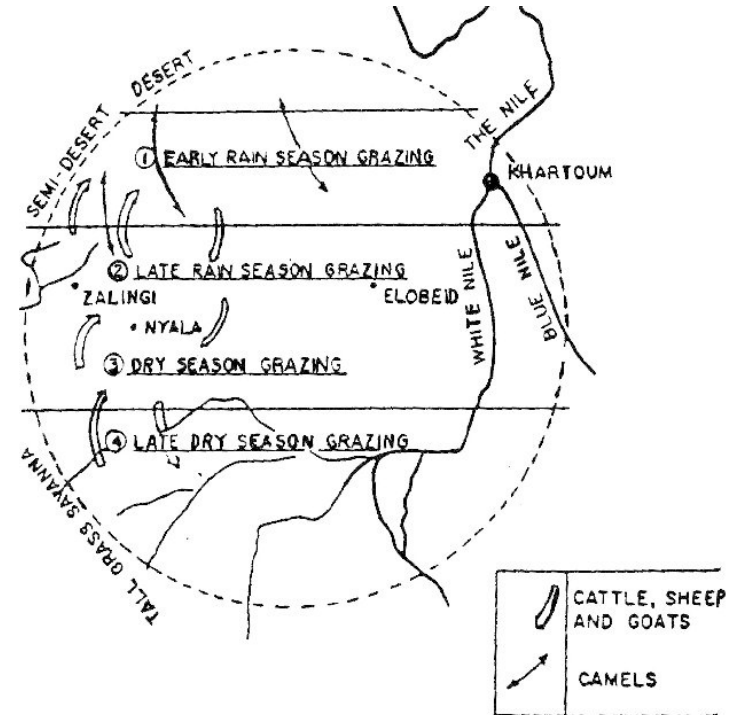
- **Over 180 million pastoralists in developing countries, largely in arid and semi-arid areas with Livestock as main source for their livelihoods**
- It is important to ‘measure’ livestock in pastoral areas, for designing socially desirable policies / investments
- Pastoralists production systems involves continuous / semi-continuous animal movement (nomadism / semi-nomadism)
- **How to count animals in nomadic / semi-nomadic production systems? No systematic information available**



# Enumerate nomadic/ seminomadic animals

## Guidelines to enumerate nomadic and semi-nomadic (transhumance) livestock

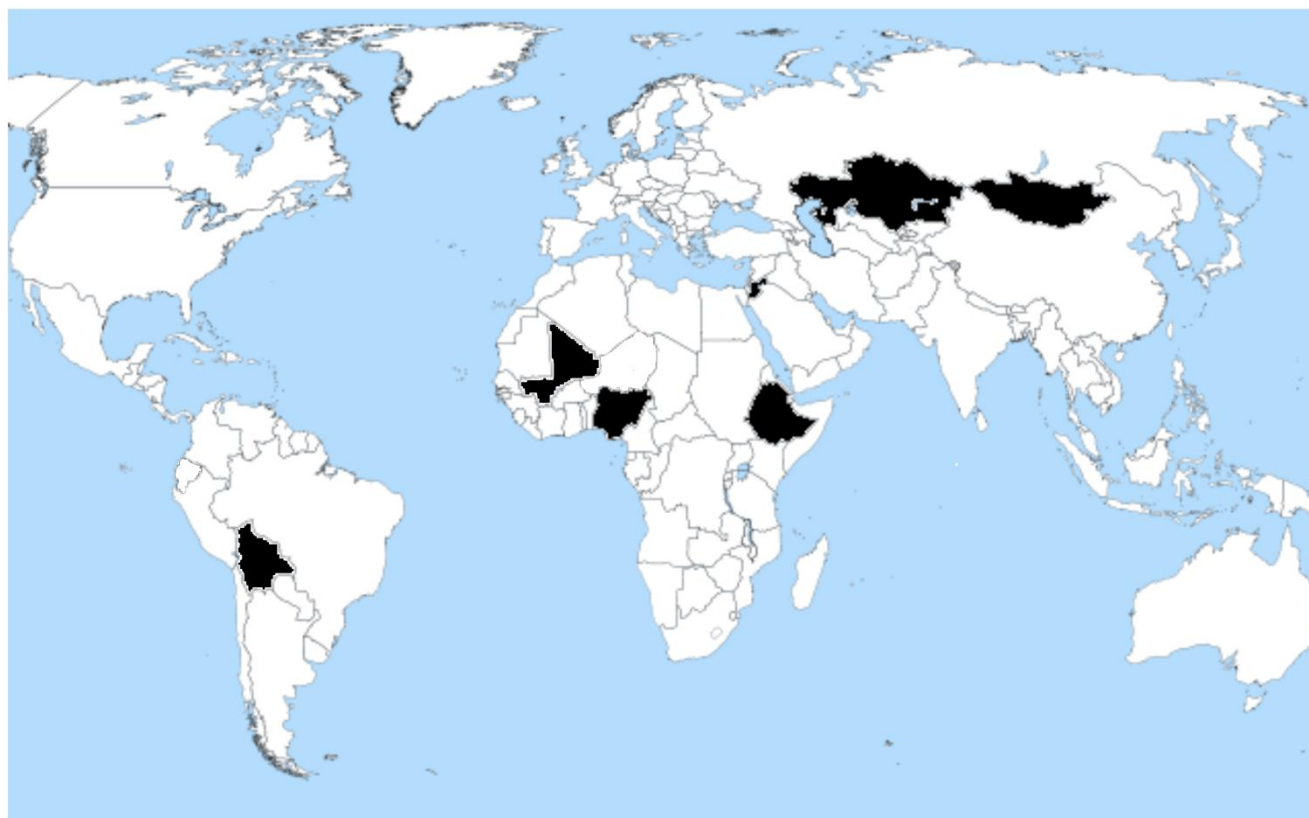
1. Review of country experiences in Africa, Asia, Near East and Latin America
2. Provide a critical analysis of different methodologies used, including pros and cons, and relative costs
3. Present a framework to assist countries in identifying appropriate survey tool
4. Issues / recommendations



- *Appendix: detailed country case studies (description / questionnaires / data analysis, dissemination, etc.)*

# 1. Country experiences

- Bolivia
- Ethiopia
- Mali
- Nigeria
- Jordan
- Kazakhstan
- Mongolia
- ... ..
- ... ..



Remark: few countries undertake surveys in pastoral areas



## 2. Enumeration Methods

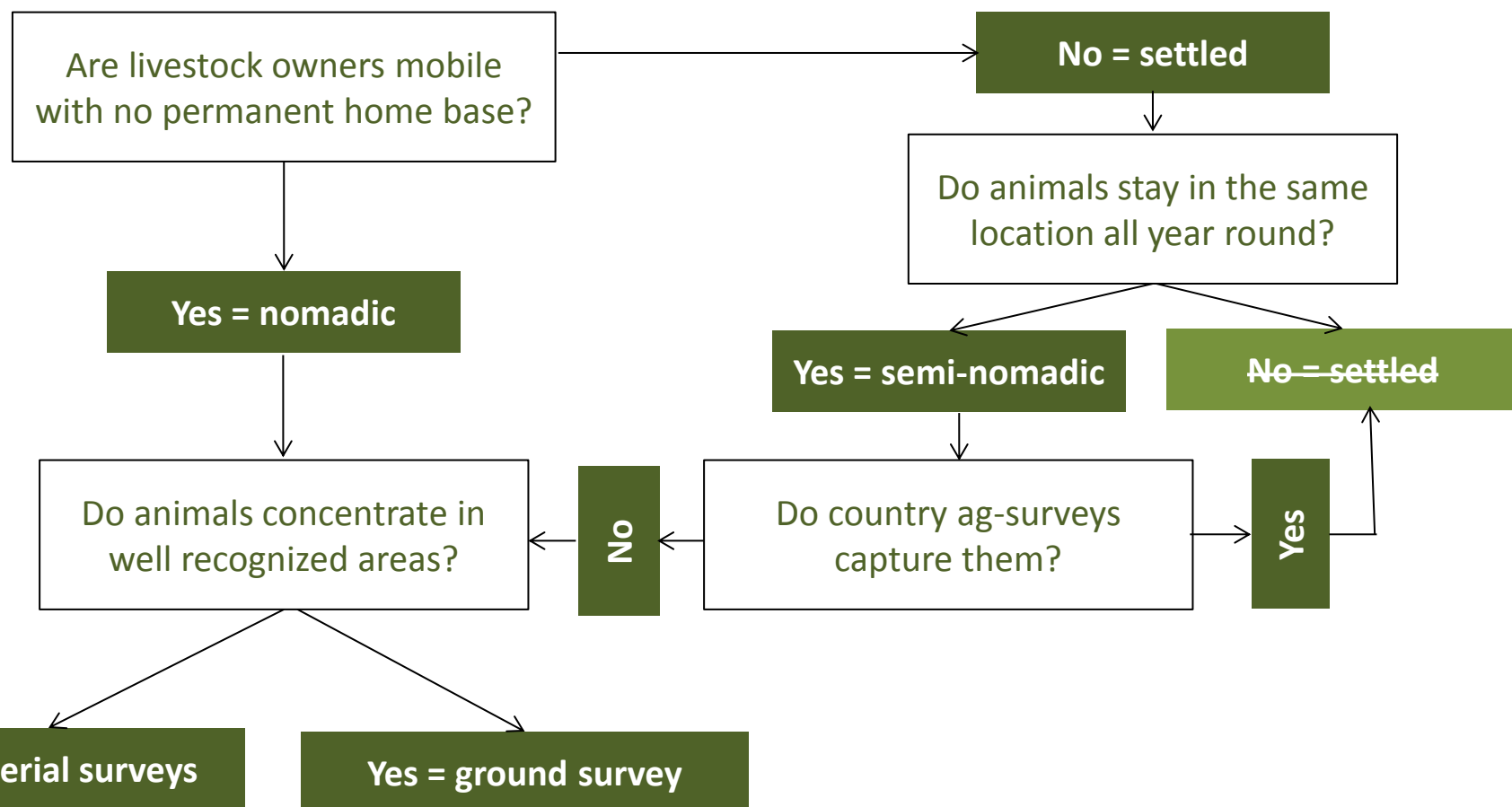
### 1. Ground surveys

- Sampling points (e.g. water points / stock routes)  
*a) complete enumeration; b) sample*
- Sampling units at sampling points (e.g. livestock keepers; animals)  
*a) complete enumeration; b) sample*
- Methods of data collection,  
*a) direct count; b) interviews; c) both*
- Costs of different survey methods  
*a) budget lines; b) relative costs*

### 2. Aerial Surveys / Remote Sensing

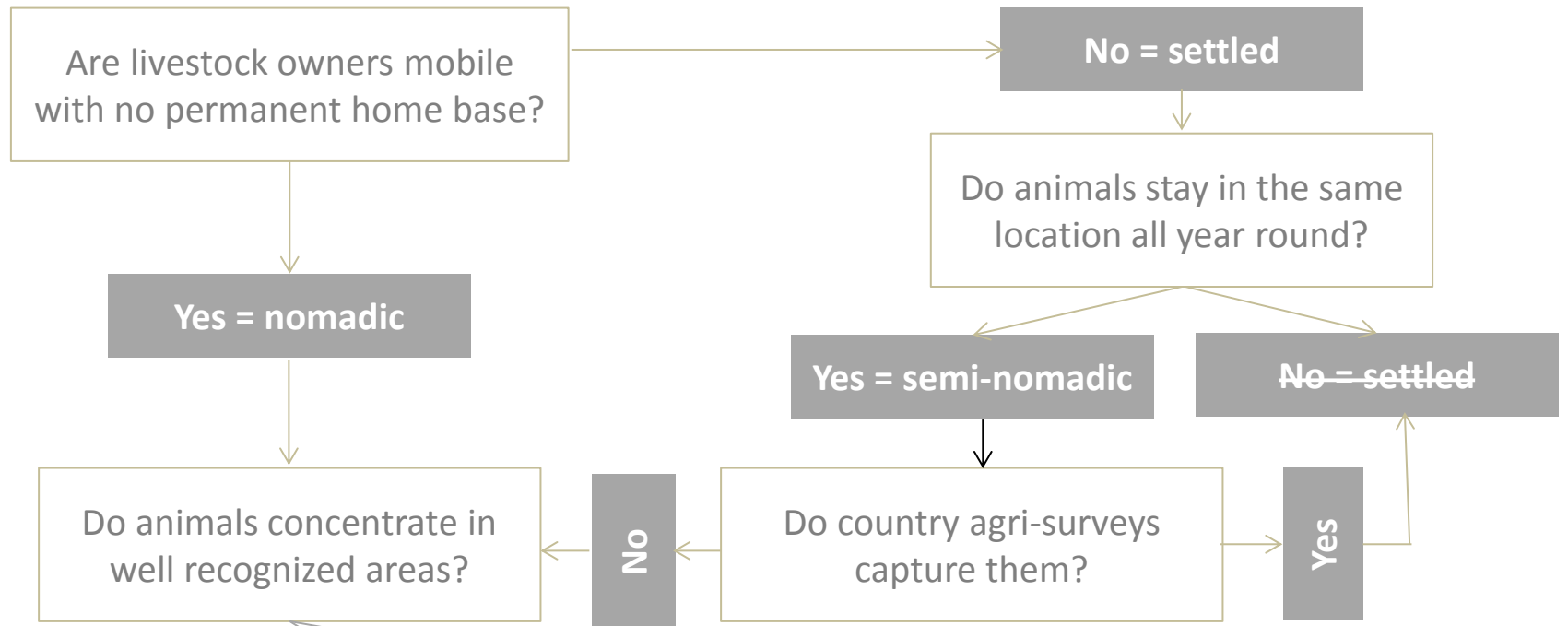


## 3. Guidelines: decision tree





# 3. Guidelines: decision tree



- 1. Reconnaissance flights
- 2. Stratified sample transects
- 3. Random Geographic Clusters
- 4. Total Count

**No = aerial surveys**

**Yes = ground survey**

- 1. Water points
- 2. Stock routes
- 3. Markets
- 4. Vaccination points
- 5. Dipping points
- 6. Ethnic groups

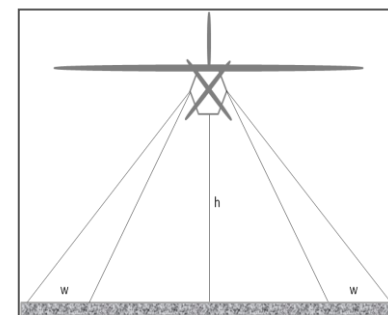
Summary of pros, cons and issues

# Appendix: detailed case studies

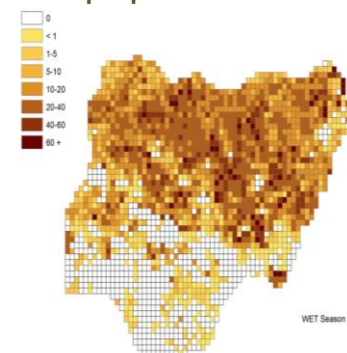
E.g.. Nigeria, 1990s

- Sampling points  
*Settled villages + systematic reconnaissance flights*
- Sampling units at sampling points (e.g. livestock keepers; animals)
- Methods of data collection, including institutional arrangements  
*household interviews + distribution of livestock from aerial surveys*

Aerial survey:  
Ground sampling strips



Estimated cattle population







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The first Scientific Advisory Committee  
FAO Headquarters, 18 and 19 July 2013

**THANK YOU**  
[naman.keita@fao.org](mailto:naman.keita@fao.org)

