



## **Taenia solium cysticercosis - an emerging foodborne zoonosis in sub-Saharan Africa**

Johansen, Maria Vang; Lekule , Faustin ; Pondja , Alberto ; Ngowi, Helena ; Assane , Yunus ; Kimbi, Eliakunda; Magnussen, Pascal; Mejer, Helena; Braae, Uffe Christian; Trevisan, Chiara; Saarnak, Christopher; Thamsborg, Stig Milan

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# Taenia solium cysticercosis

## an emerging foodborne zoonosis in sub-Saharan Africa

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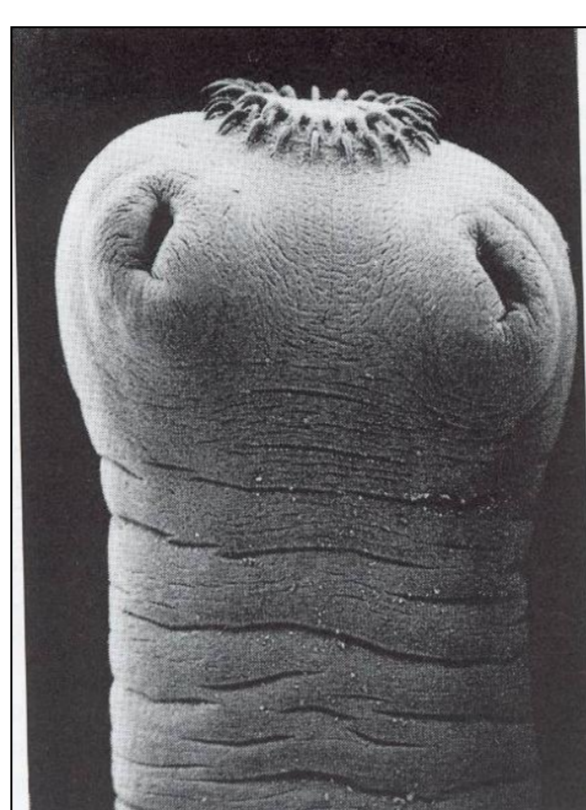
### Taenia solium – a vicious tapeworm

Declared eradicable in 1993, among the Neglected Zoonotic Diseases, to be controlled by 2020 (WHO/FAO/OIE)

#### In theory: Eradicable

Existing control tools:

- Vaccine for porcine cysticercosis
- Drugs for porcine cysticercosis
- Drugs for human taeniosis



#### In reality: Emerging

- Number of pigs and people increase significantly in sub-Saharan Africa
- Demand for pork is significantly increasing
- Knowledge regarding *T. solium* cysticercosis is almost non-existing
- Meat inspection is either non-existing or inappropriate
- Open defecation is highly prevalent

However, no tools are available in sub-Saharan Africa

#### T. solium cysts in pork

Cyst in pig brain



"White nodules"

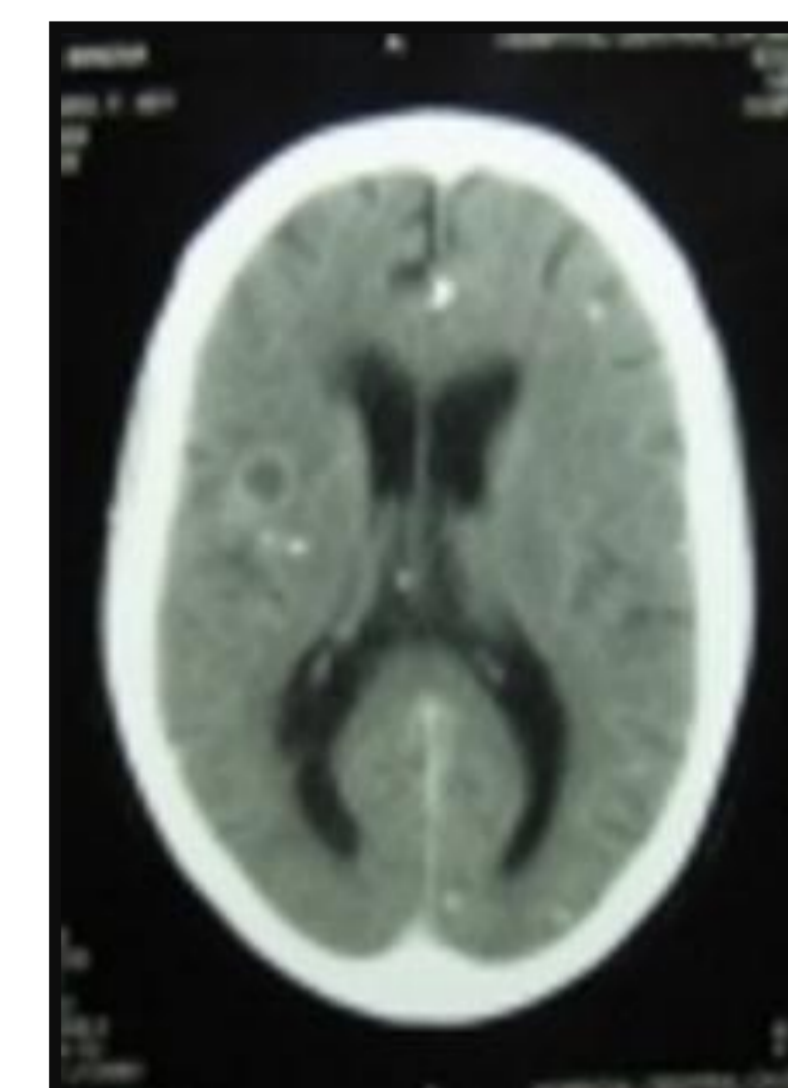


"Measly pork"



Photo: U. Braae

T. solium cysts in human brain



Symptoms like severe headache and epilepsy are very common

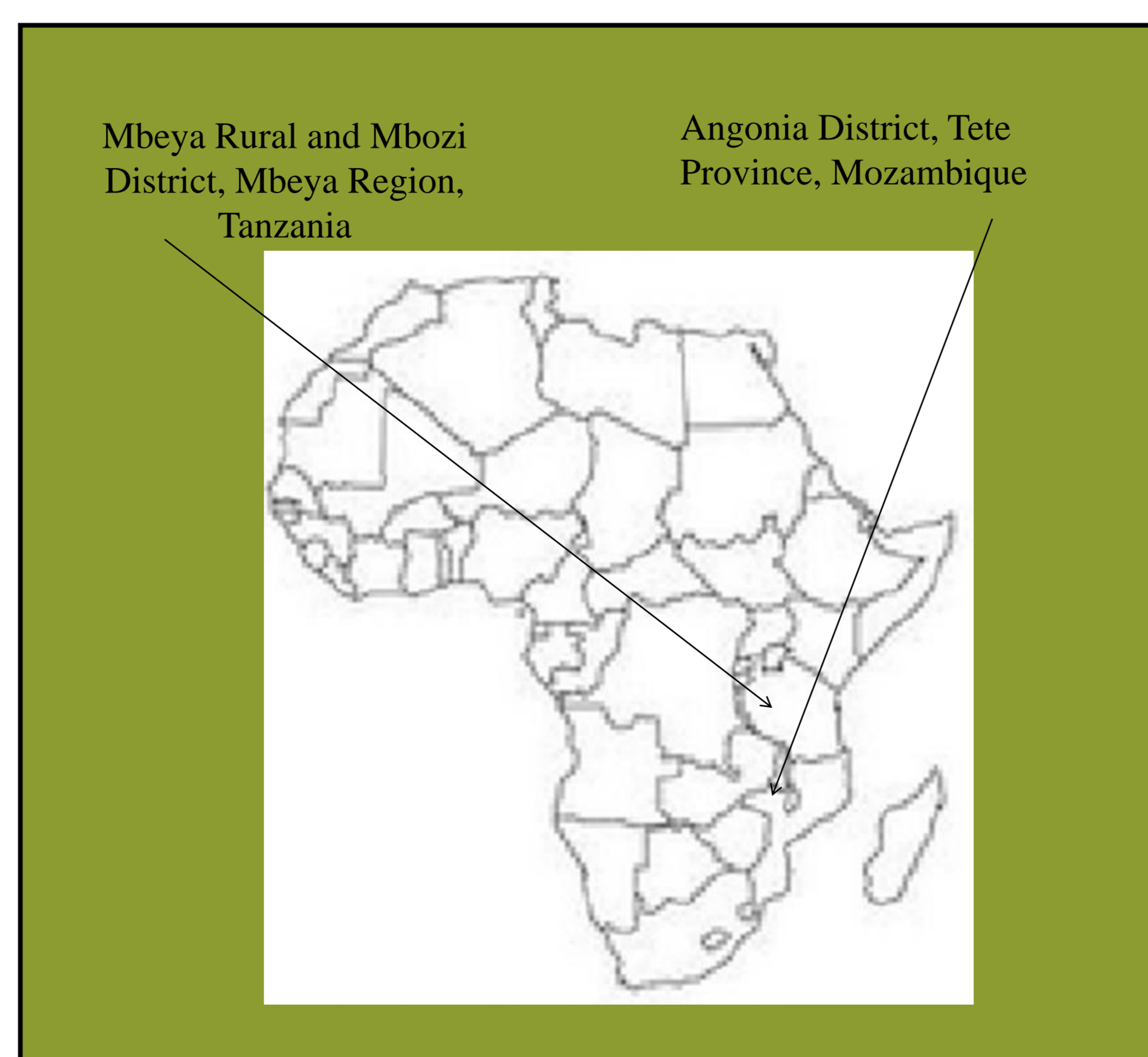


### Cross-disciplinary Risk Assessment of Taenia solium Cysticercosis in Eastern & Southern Africa (CESA) 2006 - 2010

#### Conclusion

High prevalence of epilepsy, taeniosis, human cysticercosis and porcine cysticercosis were found in the studied communities of Mozambique and Tanzania

Lack of knowledge regarding the disease and its transmission is a major obstacle for control and prevention



### Securing Rural Livelihoods through Improved Smallholder Pig Production in Mozambique and Tanzania (SLIPP) 2010 -2015

SLIPP USES A MULTI FACTORIAL APPROACH to address the complexity of changing not only the production system but also perceptions and prejudices. This involves awareness generation to improve overall knowledge and community based research to document effect and feasibility at village level to persuade stakeholders to adapt solutions long-term

SLIPP tools:

- Health education
- Pig management education
- Total pig confinement
- Anthelmintic treatment of pigs at strategic time points
- Pig management including model houses, water and feed