# Preliminary Results of the controlled Introduction of Italian Simmental Blood into Goudali (Zebu) Cattle of Cameroon







A Cooperation Micro-project 27.10.2010

Dr. BIONDOKIN CHRISTOPHE
Dr. BESSONG WILLINGTON OJONG

**Prof. EDI PIASENTIER** 

Dr. LUIGI SILVESTRELLI Dr. MENTA GIACOMO

### Preamble

• SODEPA is a state private initiative with a mission to develop and exploit the cattle Industry in Cameroon. The effects of globalisation, from a broad perspective, and the increasing need for food security in Cameroon, diametrically impose enormous challenges on this mission of SODEPA.

- As a proactive response to these challenges that favours the existence of a consumer economy, SODEPA considers the amelioration of the productivity as well as spectrum potentials of her products a matter of priority.
- Within the cattle production realm, while conscious efforts are made to conserve the biointegrity of the Goudali, there is an urgent need to meet up with a growing demand for more productive and environmentally stable, beef and dairy breeds in Cameroon.

### **Overall Objectives**

- To provide a leverage to Cameroonian cattle breeders and other pastoralists in the sub-region to significantly scale-up capacity for product spectrum (milk and Meat) and their quantity.
- To contribute in the justification of state policy of reduction in importation of animal products as a protective strategy for the growth of the livestock industry and a tool for poverty reduction; especially in the rural milieu - (a shared social responsibility of the international community as enshrined in Millennium Development Goals I, VII and VIII).

### II: Specific Objectives

- 1. To expand and diversify the existing cattle gene pool in Cameroon.
- 2. To establish and maintain a nucleus herd of dual purpose breed that will serve as a source of improved genetic material for smallholder cattle farmers by simultaneously increasing Meat and Milk productivity. Practically, this activity shall potentiate the objectives of Government's Smallholder Milk Development Project.

3. To foster partnership and enhance learning within SODEPA as a strategy to increase its capacity to support local cattle farmers.

### PARTNERS and ROLES

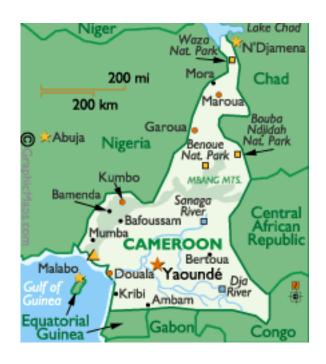
Role
Material, financial, Irce . Local
taff and technical
port mobilisation.
2

### Main Axes of Intervention

- Cattle Selection Practices
- Cattle Identification identification
- Cross breeding
- The artificial insemination technique and Embryo Transfer
- cattle selection practices
- feeding techniques that ensures high quality feed at all seasons.

### **Beef Production in Cameroon**





**Location**: Cameroon is found in the Central of Africa, bordering by the Federal Republic of Nigeria in the East, Niger in the North, Tchad and Central African Republic in the West and Congo, Gabon and Equatorial Guinea in the South.

Capital: Yaounde, Population: 17.4 million inhabitants, Regions: 10

**Official languages**: English and French, **Currency**: French franc cfa

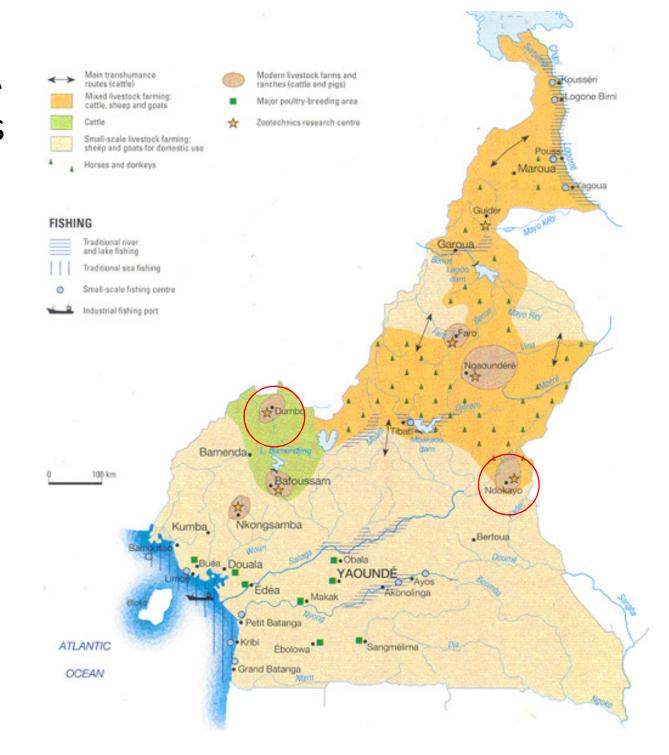
Natural Resources: Petroleum, Iron, Gold, Tin and Timber (Forets)

**Agricultural Products**: Livestock, cocoa, coffee, maize, cotton etc.

#### **Livestock Sector in Cameroon**

- -Cameroon is the vibrant country in the central African economy zone (CEMAC) in livestock possession (7 million cattle, 3 million small ruminants, 2 million pigs, 30 million chickens)
- -The livestock sector is an important contributor to the economy where more than 70% of the population depend socially and economically on agriculture especially Animal husbandry
- -The sector contributes approximately 40% to the total agricultural exports in the CEMAC zone and provides a significant amount of the country foreign exchange earning in addition to securing Meat and Milk for local consumption and provides seasonable income for the breeders

### SODEPA Ranches



### Goudali cattle at Ndokayo Ranch



### Goudali cattle at Dumbo Ranch





### **Equipment and Material Delivery**

To kick-start works an important consignment of zootechnical materials was donated to SODEPA in May 2008.





## Training SODEPA technicians on assessing cows reproductive status and AI at Ndokayo Ranch in May 2008

Nine (09) technical staff of SODEPA actively participated in the artificial insemination activity.

They acquired skills on management of cryogenic containers, semen preservation and transportation, thawing of straws for insemination, restraint of animals in breeding CHUTES and provision of assistance to inseminators.











#### **Cattle individual identification**

Animals are ear tagged with tags allowing the sampling of the skin for DNA analysis.

Thereafter ruminal transponder are introduced by oesophageal gun.

An electronic reader is used to verify the cattle identity.













### Cows ear-tagged and provided with rumenal transponders





### **Feeding improvement**

Re- seeding of Guatemala grass on natural pasture and improved grass pasture at the Dumbo-Jakiri Ranch





### **Feeding improvement**

Vitamin and mineral supplement distribution at Dumbo ranch



### **RESULTS**

### Ndokayo

• 28 calves born

- Dumbo
- 260 hybrid calves (Simgoud) out of
- 160 gestations at different stages

### Skills Acquired

- Al techniques
- Use of ultrasound in reproductive management of breeding herds
- Electronic Identification of Cattle and role in traceability

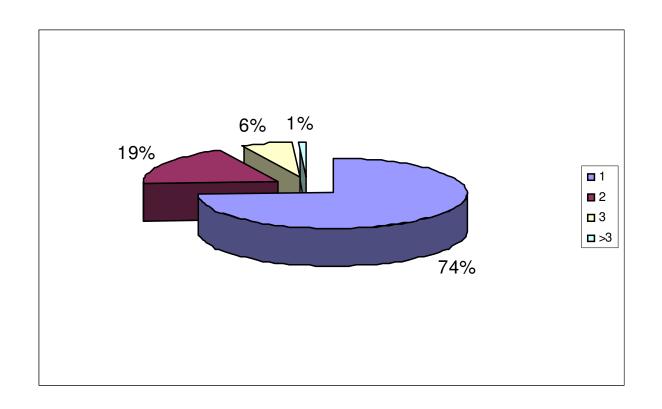
### Artificial insemination at Ndokayo ranch (11/05/2008-15/11/2009)

IS Bull	Cows inseminated		
	nr.	age (years)	BS (score)
ALEX	4	6.4	6.3
CAMELOT	5	6.4	6.0
COCHISE	10	7.4	6.3
FUTURO	8	6.2	6.1
HOGAN	7	5.9	7.3
HOMBER	7	6.7	6.2
RED BRIDGE	6	8.1	6.8
REYANDER	6	7.7	6.4
RODOS	17	6.4	6.9
RONNIE	10	7.8	6.7
SADDAM	9	6.3	7.1
STRONG	4	7.5	7.3
STRUPPI	11	8.0	7.2
Total/ mean	104	7.0	6.7
SD		2.1	1.3
min		3.4	4.0
max		11.9	9.0

### Artificial insemination at Dumbo ranch (21/06/2008-30/08/2010)

IS Bull	Cows inseminated		
	nr.	age (years)	BS (score)
ALEX	15	6.1	7.5
CAMELOT	13	6.6	7.0
COCHISE	23	6.6	7.6
FUTURO	38	6.8	6.8
HOGAN	37	6.8	7.0
HOMBER	28	7.2	7.6
RED BRIDGE	32	7.2	7.2
REYANDER	33	7.0	7.4
RODOS	23	6.4	6.7
RONNIE	13	6.4	6.9
SADDAM	11	7.2	6.6
STRONG	11	7.1	7.0
STRUPPI	27	7.0	7.2
Total/ mean	304	6.8	7.1
SD		1.6	0.9
min		2.7	4.0
max		13.1	9.0

### Number of inseminations per parturition



SIMGOUD crosses at Dumbo at the end 30/08/2010, 278 calves were born, 16 neonatal deaths, 4 cases of dystocia resulting in calve deaths, 2 cases of third trimester abortion





### **Calves growth**

Scale for calves weight recording





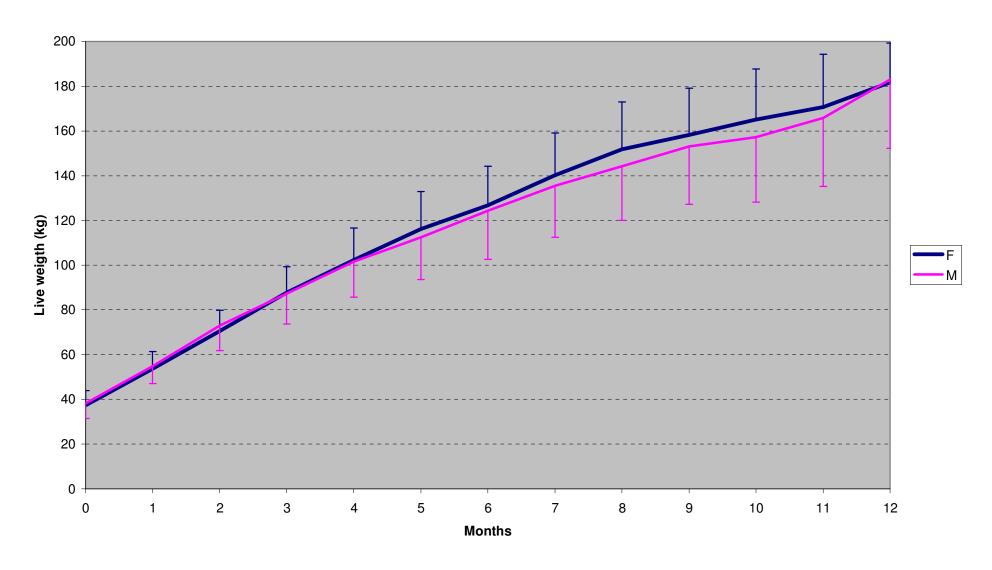


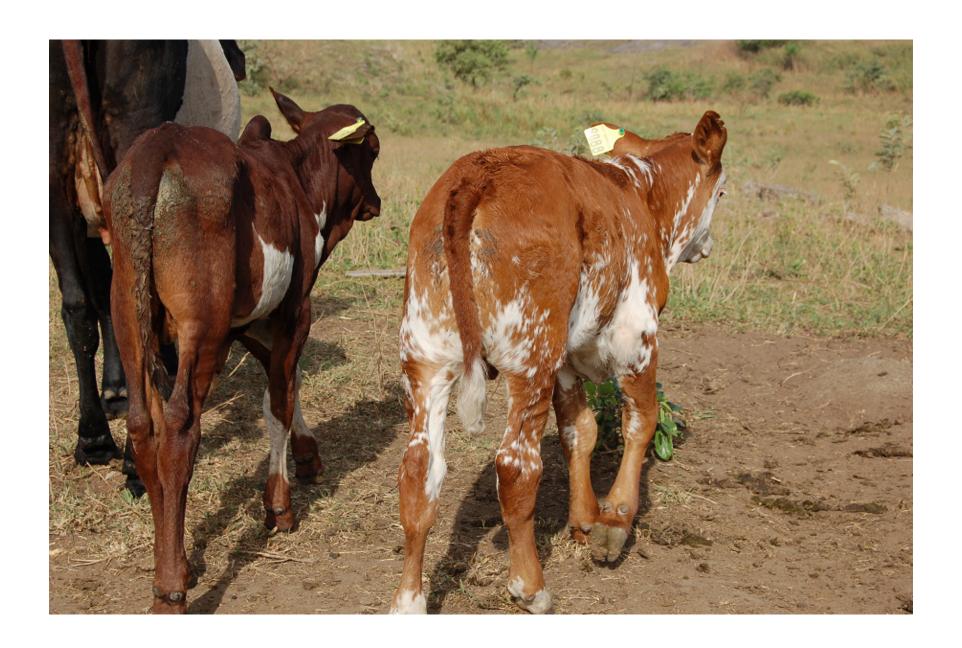




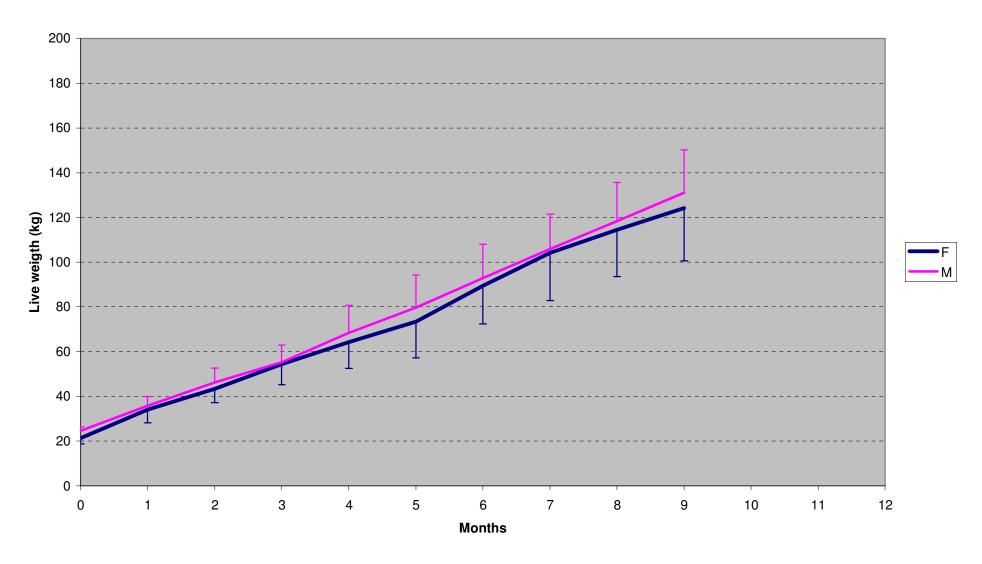


#### **Growth of SIMGOUD calves**





#### **Growth of pure Goudali calves**





A herd of weaned simgoud calves at Dumbo

### The Ministry of Livestock visit at Dumbo ranch in January 2010



 Work is ongoing and records of activities and results are being kept for eventual publication

THANK YOU ALL FOR LISTENING