



ACP-EU Cooperation Programme in Higher Education(EDULINK). A programme of the ACP Group of States with the financial assistance of European Union.

## **Popularisation of Artificial Insemination Technique as a Strategy to Improve Smallholder Cattle Herd Fertility, Productivity and Income in Villages in Misaje Subdivision**

**Realised in the framework of the projects**

**“Sicurezza alimentare dei prodotti di origine animale”**

**financed by Regional law N. 19/2000**

**EDULINK -”Linking Institutions for Veterinary Education (LIVE)”**

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**SIMGOUD “Improvement of Goudali zebu-cattle by a controlled crossbreeding program with Italian Simmental cattle” financed by the University of Udine with the contribution of the Province of Udine**

## **ACTIVITY REPORT**

### **A/ SUMMARY:**

This activity constitutes a phase of the introduction and vulgarisation of SIMGOUD dual purpose cattle by training Community Animal Health Workers (CAHW) in the Misaje Subdivision on Artificial Insemination Technique.

The rural community of Misaje Subdivision is dominated by poor and backward families. While the youth from the upper castes migrate to cities, the

members of the weaker sections of the society continue to struggle in the village for survival due to lack of initiatives and outside contacts. Subjected to severe vagaries of nature, they are compelled to invent new means for their food security. The SODEPA outreach Genetic Amelioration programme promoted by partners from the University of Udine and ANAPRI in Italy is proving to be a big blessing to this community.

Food security concerns are very rife among the local population due to marginal productivity of soils and low yields derived from the white Fulani, Red bororo and Goudali cows commonly raised.



Drivers for Training on cross breeding techniques:

1. Relatively more attractive market prices for bulls derived from cross breeding local breeds of cattle with improved varieties. This represents a veritable means for improving the income of local cattle breeders
2. Increased herd fertility due to reduced diffusion of endemic reproductive diseases associated with natural mating of stock by bulls such as brucellosis, Infectious Bovine Rhinotracheitis (IBR), *Trichomonas fetus*, Infectious Postular Vaginitis (IPV), *Mycoplasma bovis*, *Actinomyces pyogenes*, *Ureaplasma*, etc.

3. Strong economy in absence of cost of keeping and maintaining bulls for very small scale milk cows for domestic use

Besides the need to promote improved cattle genetics as a strategy for improved cattle productivity, the project activity considered a sound community-owned and managed cattle breeding equipment (through cost sharing) as a veritable springboard for economic growth among the rural poor people of this area.

OBJECTIVES/ACTIVITIES	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<b>Popularisation of Artificial Insemination Technique as a Strategy to Improve Smallholder Cattle Herd Fertility, Productivity and Income</b>	<ul style="list-style-type: none"> <li>• Demand for AI services by locals</li> <li>• Adoption of AI breeding technique</li> <li>• Reduced Incidences of breeding pathologies Increased calving rates</li> <li>• Increased market value of bulls and heifers</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring and Evaluation reports</li> <li>• Reports from networking institutions</li> </ul>	<b>Assumption for sustainability:</b> <ul style="list-style-type: none"> <li>- AI remains economically feasible through inter-institutional networking and cost sharing of economically out-of-reach materials; if left for individuals to acquire. Ex: -Laboratory diagnostics charges</li> <li>- Cryogenic containers</li> </ul>
<b>RESULTS/OUTPUTS</b>			
1. Breeders Associations Network coordination and management system established  2. Information flow in the region improved  3. Access to key resources guaranteed  4. Improved animal Diagnostic systems successfully	1.1 Modus Operandi 1.2 Breeders Association formed 1.3 Breeders Associations and related institutions agree/sign Memo of Understanding 1.3 Members agree on work programme  2.1 Network publication produced and	1.1 Progress reports  2.1 Network reports  3.1 Network reports, infrastructure in place  4.1 Monitoring and evaluation reports and	<u><b>Assumptions for Project Purpose</b></u>  1. Partners willing and able to share information 2. Enabling subdivisional communication facilities  <u><b>Assumptions for</b></u>

introduced where needed	<p>distributed</p> <p>2.2 Linkages between stakeholders operational</p> <p>3.2 Qualified AI personnel available</p> <p>3.3 Pooling of resources between stakeholders in terms of personnel and equipment achieved</p> <p>4.1 Production monitoring systems in place</p> <p>5.2 Number of improved breeds increased</p> <p>5.3 Diagnostic services available</p> <p>5.4 Level of public awareness on economic value of improved bulls increased</p>	<p>breeders associations reports</p> <p>4.1 Survey on market trends and progress reports</p>	<p><b><u>Results/Outputs</u></b></p> <p>3. Trained personnel can be retained</p> <p>4. Capability and basic infrastructure to implement activities are available</p>
<p><b><u>Activities</u></b></p> <p><b>1.0 Breeders Association and management system established</b></p> <p>1.1 Draft MoU, proposal, Appoint a Coordinator, define membership criteria</p> <p>1.2 Organize information flow plans</p> <p>1.3 Organise construct Community-owned AI facilities</p> <p>1.4 Organize a series of AI trainings</p> <p>1.5 Prepare proposals</p> <p>1.6 Pursue funding (internal and external)</p> <p>1.7 Establish links with relevant Institutions</p> <p><b>2.0 Information flow in the subdivision</b></p> <p>2.1 Encourage quick response to correspondence and improve communication links with CAHW</p> <p>2.2 Prepare Practical Manual for CAHW</p>		<p><b>4.0 Improved Health management systems successfully introduced</b></p> <p>4.1 Establish good communication links with CAHW</p> <p>4.2 Compile and provide information on herd health situation</p> <p>4.3 Assist in training of field personnel</p>	

## **B/ Activities/Results Carried out (JUNE – November 2010)**

1. **Open House Days and Sensitisation:** at 5 Target clan Neighbourhoods: Dumbu, Misaje, Nchunge, Kamine, and Sabongida

All five sensitization and planning meetings have been held. These were organised in the form of open house days and a series of talks on the strengths of the crossbreed animals in revenue generation as well as reproductive disease control were highlighted.

Target Area	Venue	Date organised	Attendance		
<i>Dumbu</i>	Ranch Guest House	9/09/2010	Men : 24		<b>29</b>
			Women: 05		
<i>Misaje</i>	Ranch Guest House	16/09/2010	Men: 17		<b>20</b>
			Women: 03		
<i>Nchunge</i>	Ranch Guest House	23/09/2010	Men: 19		<b>26</b>
			Women: 07		
<i>Kamine</i>	Ranch Guest House	30/09/2010	Men: 36		<b>36</b>
			Women: 0		
<i>Sabongida</i>	Ranch Guest House	7/10/2010	Men: 33		<b>33</b>
			Women: 0		
			<b>M</b>	<b>W</b>	<b>144</b>
			<b>129</b>	<b>15</b>	



*Community sensitisation meeting in an open-house day at the SODEPA Dumbo cattle Breeding Centre 7<sup>th</sup> October 2010*

## **2. Creation of SIMGOUD Breeders Association and local networking**

Breeders of the 05 different target group of villager breeders have organised themselves into breeders Association. This activity was facilitated by involvement of existing Community Animal Health Workers in their localities and by staff of the State's livestock service. The associations are currently in obtaining legal papers from the local administrative authorities to operate as Common Initiative organisations as provided for by Law No 90/053 of 19th December 1990 on the freedom of Associations in Cameroon.

The associations have registered themselves as follows:

Association	Location	Villages covered	Number of registered members
Dumbu	Dumbu Village	Dumbu, Mayo Killa, Kwe	5
Misaje	Misaje Town	Misaje, Nkanchi	3
Nchunge	Nchunge Village	Nchunge, Nfume, Kibbo I, Kibbo II	2
Kamine	Kamine Village	Kameni, Akweto, Kidung, Mbissa,	2
Sabongida	Sabongida village	Sabongida, Bebekette, Mashi, Bebe Jato, Bebe Jama	4
			17

**3. Training Sessions:** to some selected SODEPA staff and traditional Community Animal Health Workers (CAHW) in the targeted neighbourhoods 03 training/discussion forums have been held on the following themes.

- The role of AI in the control of endemic cattle reproductive diseases and herd fertility.
- Introduction to AI palpation clinics
- AI Instrumentation (see annex of content)





***One of a series of training session for SODEPA Staff and selected Local Community Animal Health Workers:***

***Conferring potentials for future door-step community driven artificial Insemination service.***

A two months on-farm training of artificial inseminators to serve the 05 farmers associations has been fixed to take place as from January 2<sup>nd</sup> 2011. 05 CAHWs have been selected to take part in the training at the SODEPA Dumbo Ranch Breeding Centre.

**4. Accessibility to Liquid Nitrogen:** A memorandum of understanding has been signed between SODEPA Dumbo/Jakiri Ranch and the Laboratory for emerging Infectious Diseases of the University of Buea for the supply of liquid nitrogen



## 5. Construction of community-owned AI facilities

Based on the sensitisation meetings and open house day at the Dumbo Ranch.  
The construction of 05 communally owned AI crushes have been constructed.



*Cattle restraint Crush at Dumbu*



*Constructions of community-owned cattle breeding infrastructures are ongoing*

## **6. Follow-up of Cattle Breeders**

Members of breeder association have been advised to continue to work hand in gloves with the state veterinary extension services and records of their activities and progress of their herds kept for easy access. Projected training of CAHWs envisages an accent on record keeping enabling a logical collation of statistics from their herds.

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SODEPA DUMBO/JAKIRI RANCH**