**Addendum no. 3**

**Logical Framework Matrix „ Appropriate and stable fodder production for dairy cattle on the small scale farms “**

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|  | **Project description(intervention logic)** | **Objectively verifiable indicators**  | **Sources for indicators verification** | **Assumptions and risks** |
| **Overall Objective** | Contribute to the increase income of small scale dairy farmers | * Increase the annual average of daily milk production per cow
 | Survey, farmers records |  |

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| **Outcomes** | 1. Ensure appropriate and stable fodder production for dairy cattle on the small scale farms
 | * 75% out of the 200 participating farmers produces sufficient quantities of quality fodder at the end of the project
* Stable milk production within the year on 60% out of the 200 participating farmers at the end of the project
 | * Annual records of milk production by farmers in Milk collecting centres
 | A: The government of Zambia (Ministry of Agriculture) continues to recognise agriculture and diary production as vital aspects of economic developmentA: Dairy market and its capacity (including Milk collecting centres) continues to expand in Zambia |
| **Outputs** | 1. Developed Capacity for fodder production
2. Effective and sustainable use of agricultural machinery for forage production
3. Established Holistic Land and Livestock Management in one community of each target area (Choma, Monze)
4. Ensured water supply for cattle
 | * New fodder production by farmers and/or cooperatives at least on 100 ha, since the year 2016
* Mechanized services for fodder production are profitable, since the year 2017
* 60% of farmers cattle under “HLL” Management at the end of the project
* 4 new water sources, each available for 40 cattle (2 in Choma, 2 in Monze), since the year 2017
 | * Survey, Official data of the district / provincial agricultural office
* Accounting of coop. and records of machinery use
* Survey, Monitoring - observation
* Monitoring - observation, construction documents
 | A: The farmer community and local partners recognise the importance of planning animal fodder production, pasture and machinery useA: Adequate fulfilment of commitment and cooperation by all stakeholders and project partnersA: Absence of significant climatic changes (especially drought) during the project implementation |
| **Activities** | * 1. Initial participatory meeting of project stakeholders
	2. Selection of key farmers, extension of pastures and crop fields
	3. Training on dairy cattle feeding
	4. Identification and selection of local forage crops
	5. Training on forage crop production
	6. Training on construction of forage store facility
	7. Forage crop planting by key farmers
	8. Workshops on fodder production
	9. Setting up the system of cooperative forage production
	10. Key farmers forage production demonstration to other farmers
	11. Donation of agricultural machinery for forage production to cooperatives
	12. Construction of shelter for agricultural machinery and forage production
	13. Open competition on technical staff responsible for machinery
	14. Training on operation, maintenance and basic repair of machinery
	15. Practical training of management on appropriate machinery use and business
	16. Setting the sustainable machinery use management
	17. Community selection
	18. *Prepare to mobilize 2 communities*
	19. *Organize the communities for action*
	20. *Explore Land & Water Restoration Issues and Set Priorities*
	21. *Plan together*
	22. *Act together*
	23. *Evaluate together HLLM in Monze and Choma*

3.8 Coordination and monitoring of the HLLM implementation in selected communities 3.9 Procurement of equipment and materials for the facilitators and selected communities for HLLM implementation * 1. Identification of currently available water resources and an analysis of their potential utilisation
	2. A study of possible water management solutions
	3. *Construction / Reconstruction of min. 4 waterholes (mangers) for cattle herds*
 | **Means:**Contractor for implementation and coordination of CzDA project2 Dairy cooperatives (MCC) Choma, Monze | **Budget:**Specified in the period and the structured budget plans  | A: Cooperative boards correctly select the group of participating farmers according to the specified criteriaA: Local cooperatives inform their members of the planned training activities and provide necessary facilities. A: The key farmers have successfully completed chosen training courses and use their new knowledge. A: Local cooperatives must have sufficient organisational and financial capacities to enable the establishment of cooperative fodder production, A: The construction of machinery and fodder storage is done according to the technical designA: local farmers continue to be interested in leasing mechanised services from the involved cooperativesA: Provincial and districts agricultural offices continue to maintain at least their current levels of infrastructure and market accessibility in order to allow for relevant business planning of cooperatives.A: Farmers continue to actively cooperate over the course of the project. Enduring interest exists in the practice of HLL management and its economic and environmental advantagesA: adequate water sources exist in the selected regions/districts |
|  |  |  |  | - Continued interest in the expansion of market-oriented agriculture and the profitability of dairy production as a means of improving the standard of living of the local population- No sudden and unpredictable change occurs in Zambia’s natural, political or economic environment |