

PART-2

Training Materials in Phase 3

N-CLIMP

Training Material 5

1st AT Training, November 2016

Phase 3

N-CLIMP

Republic of Namibia
Ministry of Agriculture, Water and Forestry (MAWF)

N-CLIMP

NORTHERN CROP AND LIVESTOCK DEVELOPMENT
MASTER PLAN STUDY
IN
THE REPUBLIC OF NAMIBIA

1ST TRAINING FOR AGRICULTURE TECHNICIANS IN PHASE-3

Oshana Region

October-November 2016

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
NIPPON KOEI CO., LTD.

N-CLIMP

Northern Crop and Livestock Production Master Plan Study
in
the Republic of Namibia

1st Training for Agricultural Technicians of Pilot Site Activities

October-November 2016

Agenda

Time	Subject	Presenter / Facilitator
08:45-09:00	Registration	-
09:00-09:10	Opening Remarks	◆ Chairperson: CASO, Region Office
09:10-09:40	Introduction <ul style="list-style-type: none">◆ Review of the previous trainings◆ Scheduling of Training for Farmers Group	◆ Mr. Morioka
09:40-10:40	Training on Farm Management <ul style="list-style-type: none">◆ Introduction◆ FM-2: Record keeping◆ FM-5: Group formation / group strengthening◆ FM-10: Market information access improvement	◆ Ms. Akabane, Mr. Daniel, Ms. Aini, Mr. Beny with involvement of ATs
10:40-11:00	Coffee Breaks	
11:00-12:00	Training by Production Sector <ul style="list-style-type: none">◆ Crop Training Material◆ Livestock Training Material◆ Review of Action Plan (Farmers) & Support Plan (ATs)	◆ Mr. Morioka, Dr. Orita, Ms. Akabane, Ms. Bernadette, Mr. Daniel, Ms. Aini, Mr. Beny ◆ ATs, Regional DAPEES and Attendants, facilitated by Ms. Bernadette with N-CLIMP Members
12:00-13:30	Training Coaching <ul style="list-style-type: none">◆ Preparation of Training Agenda◆ Role play for each pilot site◆ Baseline Survey	◆ ATs, Regional DAPEES and Attendants, facilitated by Ms. Bernadette with N-CLIMP Members
13:30-13:50	Assessment & Schedule <ul style="list-style-type: none">◆ Assessment & evaluation◆ Confirmation of schedule	◆ Ms. Akabane ◆ Mr. Morioka
13:20-13:30	Closing	◆ Chairperson: CASO, Region Office
13:30-14:30	Lunch	

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Northern Crop and Livestock Development Master Plan Study

1st Training of ATs Introduction

October-November 2016

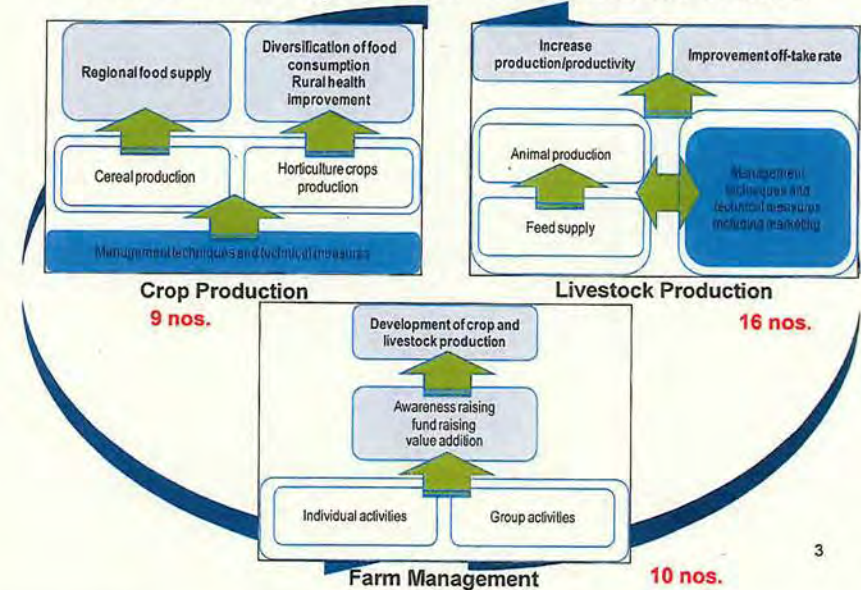


Pilot Site Activities

Crop and livestock development in the four regions of NCD



Focal Techniques and Technical Measures

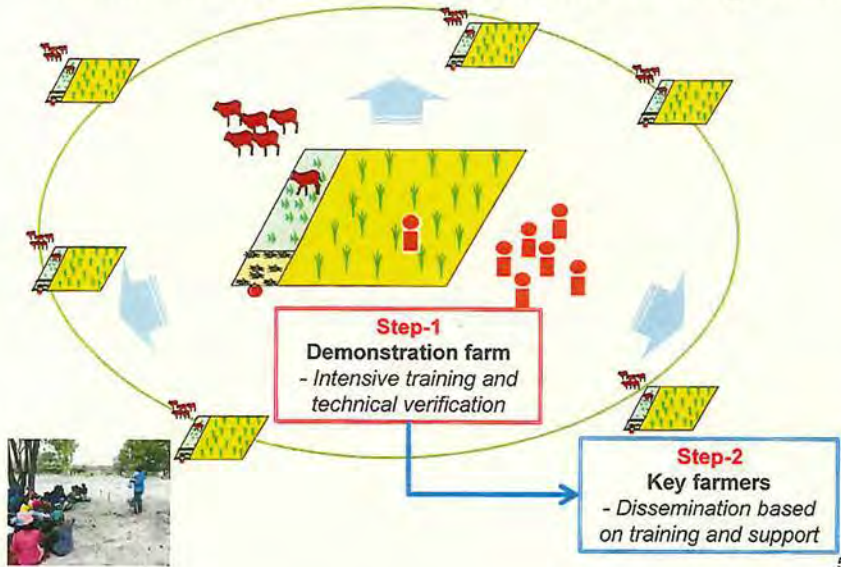


Subject-wise Techniques and Technical Measures proposed (35 nos. in total) and applied during N-CLIMP (20nos.)

Crop production (CR) (9 nos.) (8 nos.)	Livestock production (LS) (16 nos.) (8 nos.)	Farm management (FM) (10 nos.) (4 nos.)
Grains <ul style="list-style-type: none"> ◆ CR-1: Fertilizer Application ◆ CR-2: Cropping Pattern and Crop Management ◆ CR-3: Conservation agriculture ◆ CR-4: Flood- and Drought-Adaptive Cropping System Horticulture crops <ul style="list-style-type: none"> ◆ CR-5: Water Source / Water Harvesting ◆ CR-6: Water Saving Cultivation ◆ CR-7: Crop Selection ◆ CR-8: Cropping Plan and Horticulture Crop Management Crop and Horticulture crops <ul style="list-style-type: none"> ◆ CR-9: Establishment of crop production and marketing cooperatives 	Feed supply <ul style="list-style-type: none"> ◆ LS-1: Fodder Production ◆ LS-2: Range Management ◆ LS-3: Water harvesting and/or construction of water resource facilities for animals ◆ LS-4: Nutritious Feed Supply for Pig and Chicken Production <ul style="list-style-type: none"> ◆ LS-5: Disease control ◆ LS-6: Large and small stock fattening ◆ LS-7: Periodical production ◆ LS-8: Expansion of quality meat ◆ LS-9: Bull scheme ◆ LS-10: Multiplication of Sanga Bull ◆ LS-11: Goat production ◆ LS-12: Pig production ◆ LS-13: Chicken production ◆ LS-14: Promotion and strengthening of auction for both large and small stocks ◆ LS-15: Development of formal market for small stock Management <ul style="list-style-type: none"> ◆ LS-16: Establishment and strengthening livestock cooperatives 	<ul style="list-style-type: none"> ◆ FM-1: Household accounting management ◆ FM-2: Record keeping (Farm Record) ◆ FM-3: Post harvest ◆ FM-4: Business plan ◆ FM-5: Group formation/ group strengthening ◆ FM-6: Group Accounting management ◆ FM-7: Formulation of water users association ◆ FM-8: Collective selling / purchasing ◆ FM-9: Rural finance accessibility improvement ◆ FM-10: Market information access improvement

Remarks: "Red" represents techniques and technical measures applied during pilot site activities.

Technical Training and Dissemination System



5

Application of SHEP approach in the course of N-CLIMP

Smallholder **H**orticulture **E**mpowerment and **P**romotion **A**pproach

(i) Principle of SHEP approach

Encourage...

- ✚ farmers to have **business mind** in agriculture,
- ✚ farmers to think it possible to **increase profit** from agriculture by themselves,
- ✚ **farmers** to increase their **motivation** by series of training in order to boost retention of knowledge and techniques among them, and
- ✚ **ATs** to recognize value of their duties resulting in enhancing their **motivation**

(ii) Namibian-type SHEP approach

- ✚ Formulation of Namibia-type SHEP approach through N-CLIMP
- ✚ Appropriate target for each type of farmers: (i) market promotion for surplus farmers and (ii) household accounts (income and expenditure) improvement for self-consumption farmers

7

Photos of the trainings (1/1)



Training of ATs in Oshana



Training farmers for cattle raising at Uuvudiya



Training for Soil Moisture for Cereal Production at Ondobe



Market Survey by Farmers at Epembe

6

Namibian Specific SHEP Approach?

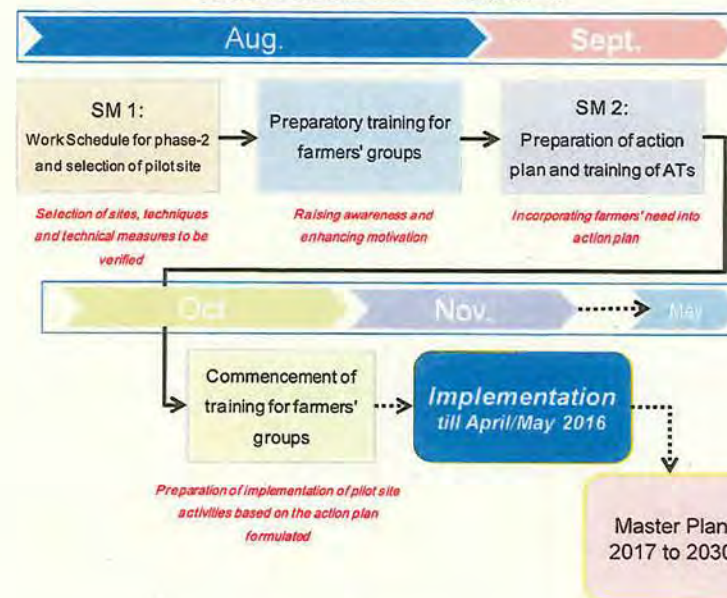
Step	Activities	Measures taken
Step-0: Preparatory stage	◆ Overall review survey and detailed thematic survey	◆ Opportunity to share development constraints and potential amongst stakeholders
Step-1: Selection of target and sharing the goal	◆ Criteria agreed among stakeholders ◆ Simplification of selection of target area and formulation of action plan	◆ Quick selection procedure of target constituencies (ADCs)
Step-2: Awareness of GAP	◆ Preparatory training for farmers' group	◆ Providing farmers' group with options of solution ◆ Use of GRN scheme in FABLIST Forum
Step-3: Facilitation of making plan	◆ Formulation of Action Plan by Farmers' Group selected ◆ Formulation of Support Plan by ATs	◆ Strengthening relationship between ATs and farmers' group through planning process
Step-4: Provision of solution	◆ In-field training ◆ Periodical monitoring and modification of schedule	◆ Flexible modification of activities based on the realities observed on the ground (weather conditions etc.)

8

Scheduling of Trainings

Combination of Trainings for ATs and Farmers Groups

Activities in Phase-3



11

Pilot Site Activities in Phase 3

- Phase 1
 - Detailed thematic survey & overall review survey
 - Technical measures & framework of master plan
- Phase 2
 - Pilot site activities with each technical measures
 - Draft master plan based on the results
- Phase 3
 - Pilot site activities with technical measures through integrated manner and initiative by ATs
 - Master plan based on the results

10

Scheduling of 1st & 2nd Trainings

17 sites in 4 regions for crop and livestock production (red color: under confirmation)

Region Training for ATs	Cereal Grains Training for FGs	Horticulture	Cattle	Small Stock
Omusati	Etayi (Etayi)	Etunda (Ruacana)	Okahao (Okahao)	Tsandi (Tsandi)
1 st : Nov. 01	-	Nov. 08	Nov. 14	Nov. 08
2 nd : Nov. 17	-	-	-	-
Oshana	Okau-Kamasheshe (Oshakati-West)	Uukwangula (Okatana)	Engombe (Uuvdiya)	Uukwiyu-uushona (Uukwiyu)
1 st : Nov. 03	Nov. 18	-	-	-
2 nd : Nov. 24	-	-	-	-
Oshikoto	Okashana (Omuthiya)	Onayena (Onayena)	Omuntele (Omuntele)	Onankali (Onyaanya)
1 st : Oct. 26	Nov. 09 09:00	Nov. 07 09:00	Nov. 07 09:00	Nov. 09 09:30
2 nd : Nov. 15	-	-	-	King Kauluma (Nehale-lya-Mpingana) Nov. 21/ 23
Ohangwena	Ondobe (Ondone)	Epembe (Epembe)	Okongo (Okongo)	Endola (Endola)
1 st : Nov. 02	Nov. 10	-	Nov. 10	Nov. 16
2 nd : Nov. 22	-	-	-	-

12

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Farm Management

1st Training:

1. Introduction (Draft)

Big Question:

Why Farm Management?

Farm Management Techniques :

- as the Tools of Self-dependency of Business-minded Farmers
 - FM-2: Record Keeping
 - FM-10: Market Info. Access Improvement
- as the Tools of Empowerment through Cooperation and Effective Usage of resources among farmers
 - FM-5: Group Strengthening
 - FM-8: Collective (Selling and) Procurement
- as the Tools of Accountability of Farmer Group Management
 - FM-6: Group Acc. Management

Training for confirming how to use "Tools"

ToT Outline in Phase 3

	Timing	Contents of Training
1 st ToT	Oct.- Nov. 2016	1. Introduction (Reviewing of Own Activities in Phase 2) 2. FM-2: Record Keeping 3. FM-5: Group Strengthening 4. FM-10: Market Info. Access Improvement
2 nd ToT	Nov. 2016	1. Reviewing of FM-2, FM-5 & FM-10 2. FM-8: Collective (Selling and) Procurement 3. FM-6: Group Acc. Management
3 rd ToT	Feb. 2017	1. Report of Activities by Farmers through AT's Monitoring 2. Discussion on Verification of Technical Measures

Basic Structure of 1st and 2nd ToT Sessions for Each Technical Measures

1. Reviewing of Own Activities
 - 1.1. Simple Questionnaire
 - 1.2. Discussions and Sharing
2. Confirmation of the Basic Issues
3. Practical Ways of Application of FM Techniques to Crop and Livestock Production Activities
4. Ways of Facilitation (Mock Sessions)
5. Ways of Monitoring

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Northern Crop and Livestock Development Master Plan Study

Farm Management

1st Training:

2. FM-2: Record Keeping (Draft)

1.2. Discussions and Sharing Themes of Discussions

1. For Farmers (through AT)

Let us share our experiences in Record Keeping

- Why do we keep records?
- Any Difficulty?

2. For ATs

Let farmers motivated to keep records through

- ✓ letting them notice **Benefits**
- ✓ letting them to have **Confidence to handle**

2. Confirmation of the Basic Issues Through Answering to the Questions


Why do we keep records?

1. The Purpose of Record Keeping is **NOT** to "collect" "correct" information
2. Tools of Self-dependency of **Business-minded Farmers**
3. **The most important thing is that the farmer uses for planning for further activities.**

Production for Sales = Agriculture as Business

2. Confirmation of the Basic Issues Through Answering to the Questions

Any Difficulty?

1. The style of Records can be verified according to the user's degrees of understanding, literacy level, available time, etc.
2. Minimised ways 

✓ letting them to have **Confidence to handle**

3. Practical ways of Application

3.1. Application Procedures:

- To Identify the Needs
- To Identify the ways of perception of Farmers
- To Practice the Use by yourself
- To Summarise in Short Sentence for Introduction
- To Talk, To Show, To Expose (for Trial) , and To Monitor with Appreciation

3.2. Simple & Practical Methods

- ✓ letting them to have **Confidence to handle**

★ Basic-1: Two-Page Note

Activities and Costs of this week		Cost (N#)	Sales of this Week		Profit (N)
12 Jan	Went to Market (bus fees)	150	12 Jan	Cabbage x 10	400
			12 Jan	Carrots 7 Kg	360
14 Jan	Went to Market	150	14 Jan	Cabbage x 6	240
16 Jan	Paid Water Fee	500	14 Jan	Peppers 1 Kg	200
18 Jan	Net bass for Carrots selling (50)	100	16 Jan	Peppers 1 Kg (at home)	160
Total Paid		900	Total Got		1,360

- ✓ letting them to have **Confidence to handle**

★ Basic-2: Calendar "Plus"

	Weather	Pepper
14 Nov Mon	Rain	
15 Nov Tue		about 10 cm
16 Nov Wed	Rain	
17 Nov Thu		(fertiliser)
18 Nov Fri		
19 Nov Sat	Rain	
20 Nov Sun		
21 Nov Mon		About 15 cm
22 Nov Tue		Buds found

- ✓ letting them to have **Confidence to handle**

3.3. Application to Crop Production TM

For Comparing Inputs and Outputs:

<Inputs>

Tractor hiring, Fertilizer and/or Manure, Seed, Water, Cost of fuel for pump, Transportation, etc.

<Outputs> : Sales / Profits

For Chronological Tracking:

Daily (or weekly) record of plant growth
Observation of Disease, Insect, Plant death etc,

3.3. Application to Livestock Production

For Comparing Inputs and Outputs:

<Inputs>

Medication (Vaccine, Medicine), Feeding, Transportation, Marketing Cost, etc.

<Outputs> : Sales / Profits

For Chronological Tracking:

Daily (or weekly) record of Animal growth
Observation of Disease, Insect, etc.

4. Ways of Facilitation (Mock Sessions)

How to motivate farmers to keep records

- Why do we keep records?

- ✓ letting them notice **Benefits**

Situation and Facilitation Question:

As a trainer for record keeping, you are now facing farmers. A few of them have kept farm records while others do not. How are you going to promote record keeping through letting farmers notice benefits?

4. Ways of Facilitation (Mock Sessions)

How to motivate farmers to keep records

- Why records? ✓ letting them notice **Benefits**

Reviewing of Mock Session with Tips

- ✓ Let Farmers to talk before you "teach"
- ✓ Lead "Happy" moment through encouraging farmers to talk Successful Cases
- ✓ "Never preach, order or beg" to do so
- ✓ Find the reasons "together"

Production for Sales =
Agriculture as Business

4. Ways of Facilitation (Mock Sessions)

How to motivate farmers to keep records

- ✓ letting them notice **Benefits**

Preparation for Actual Facilitation with some **Practical Benefits** to convince farmers :

- ❖ _____
- ❖ _____
- ❖ _____
- ❖ _____

5. Ways of Monitoring

Monitoring during Training

- ❖ _____
- ❖ _____
- ❖ _____

5. Ways of Monitoring

Monitoring After Training (through visits)

- ❖ _____
- ❖ _____
- ❖ _____

5. Ways of Monitoring Reporting at 3rd Training Session

4 ATs and Volunteers

Monitoring Report includes;

1. Outline of Farmer Training (Attachment 1)
2. The ways of motivating farmers
3. Results of Verification (Comparison before and after the training, and field visits)
4. Any Successful Stories
5. Lessons Learnt from Pilot Studies

Record Keeping Monitoring

1. Basic Report on Reporter

1.1. Reporter (Name)	Aini
1.2. Position	SAT / CAT/ AT N-CLIMP
1.3. Date of Visit	04 September 2016

2. About the Record Holder

2.1. Region	Oshana
2.2. Constituency	Okau-Kamasheshe
2.3. Record Holder Name	Trefina Angolo
2.4. Record Holder Mobile	0813828769
2.5. Group / Individual	Group / Individual
2.6. If Group, Group Name	

3. About the Record

3.1. Type of Record	Notebook (A4/AS/A6) / Paper (Format Provided)
3.2. Keeping Duration	From (YY/MM/DD) To (2016/08/00)
3.3. Main Activities	Cereal Grain / Horticulture / Cattle / Small Stock (C / G)
3.4. Record Contents	
3.4.1.	<input checked="" type="checkbox"/> Activity Done, <input type="checkbox"/> Sales Made (<input type="checkbox"/> Price / <input type="checkbox"/> Profit), <input type="checkbox"/> Inputs
3.4.2.	<input checked="" type="checkbox"/> Rain Fall <input type="checkbox"/> Growth <input type="checkbox"/> Application of (<input type="checkbox"/> Fertilisers / <input type="checkbox"/> Chemicals) <input type="checkbox"/> C/G Format <input type="checkbox"/> Horticulture Format: <input type="checkbox"/> Fuel <input type="checkbox"/> Electricity <input type="checkbox"/> Water
3.4.3.	<input type="checkbox"/> Number of Animals Exist (<input type="checkbox"/> Number by Categories) <input type="checkbox"/> Addition by Birth <input type="checkbox"/> Addition by Purchasing <input type="checkbox"/> Reducing by Animals Death <input type="checkbox"/> Number of Animals Sold
3.4.4.	<input type="checkbox"/> Other (Specify: _____)
3.5.1. Observation -1: Please select the applicable	<input type="checkbox"/> Well-kept through the above duration in the same styles <input type="checkbox"/> Some fluctuations found in the ways of recording <input type="checkbox"/> Some changes found in the style of recording (<input type="checkbox"/> improving / <input type="checkbox"/> not improving since _____)
3.5.2. Observation 2: Please comment what you analyse	We found the farmer busy with her traditional basket that she plans to go sell them at oshakati.

Note:

4. The Best Record Page (half of A5 =A6)

4.1. Photos taken



4.2. Typed

The farmer busy making traditional baskets to go selling.

Record Keeping Monitoring

1. Basic Report on Reporter

1.1. Reporter (Name)	Aini
1.2. Position	SAT / CAT/ AT N-CLIMP
1.3. Date of Visit	20 September 2016

2. About the Record Holder

2.1. Region	Oshana
2.2. Constituency	Okatana
2.3. Record Holder Name	Kristofina Lyahulapo
2.4. Record Holder Mobile	0813809161
2.5. Group / Individual	Group / Individual
2.6. If Group, Group Name	Desmond Tshinyemba-Tshikejho

3. About the Record

3.1. Type of Record	Notebook (A4/A5/A6) / Paper (Format Provided)
3.2. Keeping Duration	From (YYMMDD) To (YYMMDD)
3.3. Main Activities	Cereal Grain / Horticulture / Cattle / Small Stock (C / G)
3.4. Record Contents	
3.4.1.	<input checked="" type="checkbox"/> Activity Done, <input checked="" type="checkbox"/> Sales Made (<input type="checkbox"/> Price / <input type="checkbox"/> Profit), <input type="checkbox"/> Inputs
3.4.2.	<input type="checkbox"/> Rain Fall <input type="checkbox"/> Growth <input type="checkbox"/> Application of (<input type="checkbox"/> Fertilisers / <input type="checkbox"/> Chemicals) <input type="checkbox"/> C/G Format <input type="checkbox"/> Horticulture Format <input type="checkbox"/> Fuel <input type="checkbox"/> Electricity <input type="checkbox"/> Water
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3.5.1. Observation -1: Please select the applicable	<input type="checkbox"/> Well-kept through the above duration in the same styles <input type="checkbox"/> Some fluctuations found in the ways of recording <input type="checkbox"/> Some changes found in the style of recording (<input type="checkbox"/> improving / <input type="checkbox"/> not improving since _____)
3.5.2. Observation 2: Please comment what you analyse	There is spinach in the greenhouse ready to sell. Transplanting of tomato (roma) given to farmers from the ATs garden.

Note:

4. The Best Record Page (half of A5 =A6)

4.1. Photos taken



4.2. Typed

Filling the record keeping form, we could not get much information as the farmers were attending the funeral of one of our key farmer.

Record Keeping Monitoring

1. Basic Report on Reporter

1.1. Reporter (Name)	Daniel M Imalwa
1.2. Position	SAT N-CLIMP
1.3. Date of Visit	04 October 2016

2. About the Record Holder

2.1. Region	Oshana
2.2. Constituency	Uvuvdhiya
2.3. Record Holder Name	Eino Amupolo
2.4. Record Holder Mobile	0814284477
2.5. Group / Individual	Individual
2.6. If Group, Group Name	

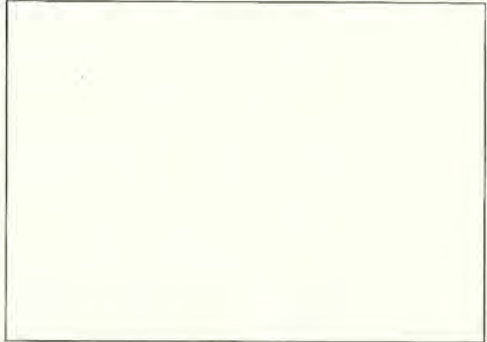
3. About the Record

3.1. Type of Record	Notebook (A5)
3.2. Keeping Duration	From (YYMMDD) To (YYMMDD)
3.3. Main Activities	Cattle
3.4. Record Contents	
3.4.1.	<input type="checkbox"/> Activity Done, <input type="checkbox"/> Sales Made (<input type="checkbox"/> Price / <input type="checkbox"/> Profit), <input type="checkbox"/> Inputs
3.4.2.	<input type="checkbox"/> Rain Fall <input type="checkbox"/> Growth <input type="checkbox"/> Application of (<input type="checkbox"/> Fertilisers / <input type="checkbox"/> Chemicals) <input type="checkbox"/> C/G Format <input type="checkbox"/> Horticulture Format <input type="checkbox"/> Fuel <input type="checkbox"/> Electricity <input type="checkbox"/> Water
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3.5.1. Observation -1: Please select the applicable	<input type="checkbox"/> Well-kept through the above duration in the same styles <input type="checkbox"/> Some fluctuations found in the ways of recording <input type="checkbox"/> Some changes found in the style of recording (<input type="checkbox"/> improving / <input type="checkbox"/> not improving since _____)
3.5.2. Observation 2: Please comment what you analyse	-we didn't find demo farmer at his house -he was notified by AT that we going to do monitoring

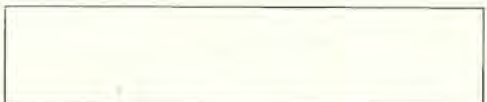
Note:

4. The Best Record Page (half of A5 =A6)

4.1. Photos taken



4.2. Typed



Record Keeping Monitoring

1. Basic Report on Reporter

1.1. Reporter (Name)	Daniel M Imalwa
1.2. Position	SAT N-CLIMP
1.3. Date of Visit	20 September 2016

2. About the Record Holder

2.1. Region	Oshana
2.2. Constituency	Uukwiyu - Ushona
2.3. Record Holder Name	Johanna Hango
2.4. Record Holder Mobile	0812818813
2.5. Group / Individual	Group
2.6. If Group, Group Name	Usiku Wa Horongo

3. About the Record

3.1. Type of Record	Notebook (A4) / (A5)
3.2. Keeping Duration	From (YY/MM/DD) 2014/05/01 To (YY/MM/DD) 2016/09/
3.3. Main Activities	Small Stock (C)
3.4. Record Contents	
3.4.1.	<input type="checkbox"/> Activity Done, <input checked="" type="checkbox"/> Sales Made (<input type="checkbox"/> Price / <input checked="" type="checkbox"/> Profit), <input type="checkbox"/> Inputs
3.4.2.	<input type="checkbox"/> Rain Fall <input type="checkbox"/> Growth <input type="checkbox"/> Application of (<input type="checkbox"/> Fertilisers / <input type="checkbox"/> Chemicals) <input type="checkbox"/> C/G Format <input type="checkbox"/> Horticulture Format <input type="checkbox"/> Fuel <input type="checkbox"/> Electricity <input type="checkbox"/> Water
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3.4.4.	<input type="checkbox"/> Other (Specify:)
3.5.1. Observation -1: Please select the applicable	<input checked="" type="checkbox"/> Well-kept through the above duration in the same styles <input type="checkbox"/> Some fluctuations found in the ways of recording. <input type="checkbox"/> Some changes found in the style of recording (<input type="checkbox"/> improving / <input type="checkbox"/> not improving since)
3.5.2. Observation 2: Please comment what you analyse	-farmers build another chicken house for small chicks -small garden to produce food for chickens -egg production is high

Note:

4. The Best Record Page (half of A5 -A6)

4.1. Photos taken



4.2. Typed

-farmers are reluctant to show us the pictures where they recorded their profits.
-chickens production is high and farmer improved

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Northern Crop and Livestock Development Master Plan Study

Farm Management

1st Training:

FM-5: Group Formation / Enhancement (Draft)

1.2. Discussions and Sharing Themes of Discussions

1. For Farmers (through AT)

2. For ATs

Let us work together

- Why do we work together?
- What we need to do for working together?

Let farmers motivated to work together through

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ letting them plan for **practical activities**

1.2. Discussions and Sharing Themes of Discussions

1. For Farmers (through AT)

2. For ATs

Let us work together

- Why do we work together?
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Let farmers motivated to work together through

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ letting them plan for **practical activities**

(Mock Sessions) Ways of Facilitation

Why do we work together?



✓ letting them recognise **Benefits**

(Your Task) Preparation for Actual Facilitation with some Practical Benefits to convince farmers:

- ❖ _____
- ❖ _____
- ❖ _____

(Mock Sessions) Example of Facilitation

❑ Why do we work together? → **Benefits**

- Benefits observed in N-CLIMP Phase 1:
 - ◆ Model Farmer → Key Farmers (Info/ techniques)
 - ◆ Portly farmers' access to vaccination  
 - Benefits observed in other countries
 - ◆ Selling together / Negotiating prices
- ✓ letting them to "dream" future plan that can be done only through group work

3.1. Application to Crop Production

Group Activities

- ❑ Information Sharing on weather / risk / hazard / prices
- ❑ Gaining communal facilities for horticulture (Okatana)
- ❑ Collective purchase of fertilisers/ chemicals (to be treated → FM-8)
- ❑ Collective selling of products (→ FM-8) with quality control
- ❑ Collective Transportation for products (Difficulties recognised by farmers of Okashati –West, Ondobe) (to be related to FM-10)

3.2. Application to Livestock Production

Possible Group Activities

- ❑ Information Sharing on prices / grades / classes of livestock
 - ❑ Collective purchase of inputs (e.g. vaccine for small stocks)
 - ❑ Communal use of facilities and equipment's (e.g. animal husbandry kits)
 - ❑ Collective selling of products with Quality Control of Products
- Price Negotiation ?

(Mock Sessions) Ways of Facilitation

❑ Why together? ✓ letting them notice **Benefits**

Reviewing of Mock Session with Tips

- ✓ Let Farmers to talk before you "teach"
- ✓ Lead "Happy" moment through encouraging farmers to talk
- ✓ "Never preach, order or beg" to do so
- ✓ Find the reasons "together"

Cooperation = Powering Farmers for Agriculture as Business

1.2. Discussions and Sharing Themes of Discussions

1. For Farmers (through AT)

Let us work together

- ❑ Why do we work together?
- ❑ What we need to do for working together?

2. For ATs

Let farmers motivated to work together through

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ Plan **practical activities with farmers**

(Mock Sessions) Ways of Facilitation

❑ What we need to do for working together?-2

✓ **Information Confirmation before supporting**

Question to ATs:

What do we need to know about a group of farmers before supporting them?

- ❖ _____
- ❖ _____
- ❖ _____

Practical Ways of Facilitation

❑ What we need to do for working together?-2

✓ **Information Confirmation before supporting**

Example of Answers by ATs:

Location, Group Name, Types, Affiliation, Number of Members, Establishment Year, Methods, Registration, Bylaws / Regulations, Purpose / Objective of the Group, Main Activities by the Group / Coop / Associations

Used Example

1.2. Discussions and Sharing Themes of Discussions

1. For Farmers (through AT)

Let us work together

- ❑ Why do we work together?
- ❑ What we need to do for working together?

2. For ATs

Let farmers motivated to work together through

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ Plan **practical activities with farmers**

(AT's Discussion) Sharing Experience

☐ What we need to do for working together?-3

✓ Practical Issues that ATs' Support worked for Enhancement of Farmer Groups

What have you found that your supports were needed for Farmers Groups for Group Management?

❖ _____

❖ _____

❖ _____

Used Example

AT's Discussion Themes by Region

Omusati: (to be used only in case that the discussion is not practical)

- ✓ **Omusati -C/G+ Hor:** Recognition gap between Key farmers and other members
- ✓ **Okahao-L/S:** Not Reviewed, and Not Planned
- ✓ **Tsandi -S/S:** Training done, but no activity at the field level

AT's Discussion Themes by Region Oshana

(to be used only in case that the discussion is not practical)

- ✓ **Okashati -West-C/G:** AT's Plan to introduce this against Transportation Problems
- ✓ **Okatana -Hor:** Procurement an management of Communal Facilities
- ✓ **Uuvdiya -L/S:** A traditional leader who is dominants in the group
- ✓ **Uukwiyu -S/S:** Collective purchase of vaccines

AT's Discussion Themes by Region Oshikoto

(to be used only in case that the discussion is not practical)

- ✓ **Okashana-C/G:** No Planning of FM-5?
- ✓ **Onayena -Hor:** Farmers willing for ... What ATs can do? Further more, F-F possible?
- ✓ **Omuntele-L/S:** Farmers on sparsity of water and feed, ATs in interested in Marketing. What are the practical steps to achieve?
- ✓ **Onankali-S/S:** Collective purchase of vaccines

AT's Discussion Themes by Region Ohangwena

(only in case that the discussion is not practical)

- ✓ **Ondobe-C/G:** Transportation as problems in Farmers' action Plan
- ✓ **Epembe-Hor:** Farmers willing for "water connection". So ATs plan "Rural Finance Accessibility Improvement". What can be practical steps to achieve for that?
- ✓ **Okongo + Endola -L/S + S/S :** Farmers Plan disease control. What are the practical steps to achieve?

Practical Ways of Facilitation

☐ What we need to do for working together?-2

Expected Issues to be mentioned :

- ◆ **Facilitation and Leadership**
- ◆ **Identification of "norm" of the group**
- ◆ **Decision Making**
- ◆ **Facilitation of "Management" by Farmers**
- ◆ **Conflict Resolution**

Practical Ways of Facilitation

☐ What we need to do for working together?-2

Examples of Practical Issues that ATs' Support for Enhancement of Farmer Groups:

- ◆ **Introduction of AGM / Decision Making system**
- ◆ **Training on the Facilitation and Leadership to Leaders**
- ◆ **Facilitation for making rules in relation to water usage**

Reporting at 3rd Training Session

4 ATs and Volunteers

Monitoring Report includes;

1. Outline of Farmer Training (Attachment 1)
2. The ways of motivating farmers
3. Results of Verification (Comparison before and after the training, and field visits)
4. **Any Successful Stories**
5. **Lessons Learnt from Pilot Studies**

Information Sheet on Groups in Pilot Sites Oshana Region

Reported by Benyamin Shikesho

1	Region	Oshana	Oshana	Oshana	Oshana
2	Constituency	Okatana	Okau Kamasheshe	Uuvudhiya	Ukwiyu ushona
3	Group Name			Uuvudhiya farmer union	
4	Types (*1)			Association	
5	Affiliation (*2)			Member of RFC	
6	Number of Members			Total: 15 Male: 13 Female:2	
7	Establishment			Year 2014 Assisted by MAWF	
8	Registration			Year 2016 Registered to Uuvudhiya farmers union	
9	Bylaws / Regulations				
10	Purpose / Objective of the Group				
11	Main Activities by the Group / Coop / Associations				
12	Note	They do not belong to any RFC/RFU	> They do not belong to any RFC/RFU	> The association does not have bylaws but it has the constitution and it was not provided.	> They do not belong to any RFC/RFU
13	Date of Collection	20 September, 2016	04 September,2016	04 October 2016	20 September 2016

Note: 4. Types (*1): Choosing from Primary Cooperative / Cooperative with subordinate Primary Cooperatives / Association / Other

5. Affiliation (*2) : Member of RFU / RFC / or please specify

Japan International Cooperation Agency (JICA) Ministry of Agriculture, Water and Forestry (MAWF), Namibia

N-CLIMP

Northern Crop and Livestock Development Master Plan Study

Farm Management

1st Training:
4. FM-10: Market Survey (Draft)

1.2. Discussions and Sharing

Themes of Discussions

1. For Farmers (through AT)

Let us share our experiences in Market Survey

- Why do we do market survey?
- Any Difficulty?

2. For ATs

Let farmers motivated to do market survey

- ✓ letting them notice **Benefits**
- ✓ letting them to have **Confidence to handle**

2. Confirmation of the Basic Issues Through Answering to the Questions

Why do we do market survey?

1. Farmers use results of market survey for selection of crops / animals and planning of production.
2. Tools of Group-oriented planning of Business-minded Farmers.
3. The Purpose of market survey is NOT to "collect" market information.

Production for Sales = Agriculture as Business

2. Confirmation of the Basic Issues Through Answering to the Questions

Any Difficulty?

1. The style of survey formats can be verified according to the user's degrees of understanding, literacy level, available time, etc.
2. Crop, Small Stock (Chickens and Goats)

✓ letting them to have **Confidence to handle**

Training by Production Sector

Crop and Livestock

N-CLIMP

Ripper Furrowing

B: Elingo iyiriridha iyama eris hachika wa eta gungula zanyu masofa

Omwanda gwOkulogesa nOkulwiphiyu

A:
Oku kusa
pavi iya
itakana



Oshakela natari kutima iyawidika shakiri kuti itashiti ya wamba amadhi tashi kuti wot seripipi iya

Breaking the hard surface pan

- To allow plant root penetration of 30 cm
- Creating furrows for in-field water harvesting
- To increase soil moisture for crop growth
- Some farmers already have experience showing much better growth than the usual land preparation
- Demerit: cost for ripper furrowing is higher than the usual land preparation

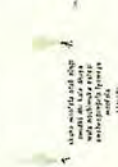


Okutatula oluma

B: Elingo iyiriridha iyama eris hachika wa eta gungula zanyu masofa

Omwanda gwOkulogesa nOkulwiphiyu

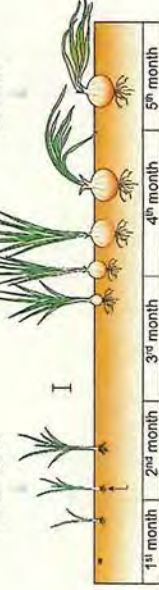
A:
Oku kusa
pavi iya
itakana



Oshakela natari kutima iyawidika shakiri kuti itashiti ya wamba amadhi tashi kuti wot seripipi iya

- Okutatula oluma - ohashi pitike omidhi dhashimeno shiye mevi ule wo 30cm)
- Ohashi walele okuninga eefoola dhayamule nawa no ku humbar omeya
- Oku indjipaleka ulutwe opo imeno yikoke nawa
- aanafalama yamwe oyena nale unongo moku longekitha evi oshwo ekokitho iyimeno.
- Uudhigu/uuwinayi: oshina ondilo navi oku longekitha eefoola shivulithe oku longekitha evi ngashi shito.

Transplanting



Basal: manure, top dressing: 10 to 15 g per m²

Sowing time: February to May

Growth period: 4 to 4.5 months (or more by variety)

Transplanting: 1.5 month (3 to 4 leaves)

CR 8: CROPPING PLAN AND HORTICULTURE CROP MANAGEMENT ONION GROWTH

okutsika

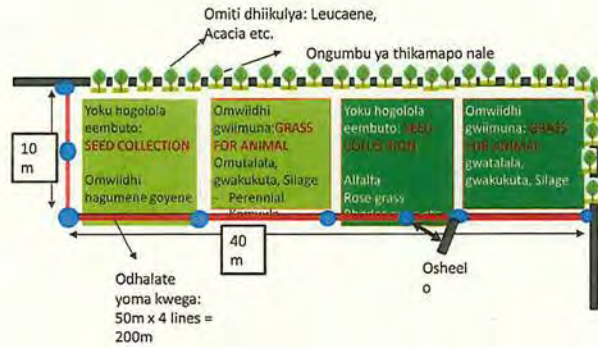


Ethimbo lyokukuna: February, sigo May

Ethimbo lyokukoka: 4 sigo 4.5 omweedhi (nenge shivulithe omaludhi)

Okutsika imeno: 1.5 omwechi (3 sigo 4 omato)
CR 8: EDHILAADHILO LONGEKIDHO LYOKWEETAPO NOKUKALEKAPO IHAPE NINGUMUTULU EKOKO LYOONYANGA

Okweetapo iikwakulya yiimuna



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Activities for disease control

Month	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
SEASON												
BROWSING												
Reproduction			Optimal lambing/kidding			Wearing lambs/kids	Ram care	Mating ewes				
	Ewes mated in Jul/Aug, give birth			4 months suckling period with good browse				3 months rest before breeding		Pregnant for 5 months		
Husbandry				Castrate and ear-tag		Vaccinate lambs/kids	Vaccinate entire herd					
Disease control							Veceral disease control					
Parasite	Internal and external parasite control, especially if goats and sheep are kraaled at night											
Supplement	Energy supplement for pregnant ewes			MPE supplementation				Mineral Supplementation for improved performance		MPE supplement		

• Red: Reproduction, Blue: Vaccination, Deworming, Orange: Castration, Dehorning

N-CLIMP



Activities for disease control

MANAGEMENT CALENDER

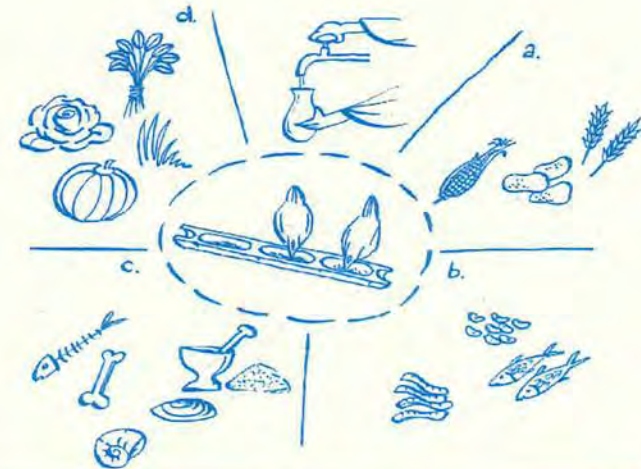
Month	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
SEASON												
GRAZING												
Reproduction	Bull Care		Main Calving Season			Main Mating Season			Weaning of Calves			
	Cows: mating from March to May, calving			3 months from calving to mating			Calving 9 months later, from Dec. to Feb.			7 months from calving to weaning		
Husbandry				Castrate and Ear-tag Calves		Dehorn and Brandmark Calves						
Disease control			Cows: Venereal Disease Control			Vaccinate Calves						
Parasite	Internal parasite			External Parasite control in rainy season						Internal parasite control		
Supplement	MPE supplementation		Mineral Supplementation				Mineral-Protein-Energy (MPE) supplementation					
Rotational		Rotational grazing (focus on resting the veld)										
Grazing					Adjust herd size to grazing availability							
Common grazing	Grazing near household		Grazing at cattle post						Grazing near household			

• Red: Reproduction, Blue: Vaccination, Deworming, Orange: Castration, Dehorning

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Available Chicken Food Ingredients



N-CLIMP



Simple ration for supplementing with locally available materials

Ingredient	Quantity
Crushed sorghum /Millet grain or maize	1 tin can (1 kg tomato tin)
Wheat bran, sorghum bran or millet bran	1 tin can
Bone meal /salt mix	1 match box(1 salt with 13 bone meal)
Alfalfa leaves	2 match boxes
Maggot and termite	Ad-lib

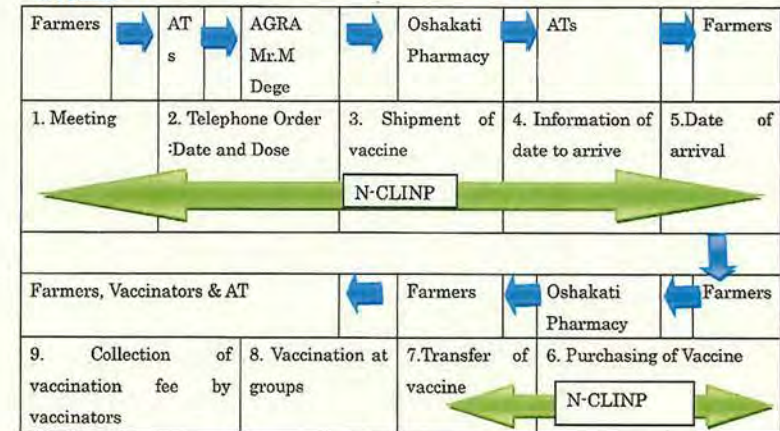
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New Castle Disease (NCD) Vaccine

Chart of NCD vaccination from order to vaccination

At Present



N-CLIMP



Disease control schedule - chicken

	Omwedhi	1	2	3	4	5	6	7	8	9	10	11	12
okugwayeka	VECTOCID	○		○		○		○		○		○	
mokana	PROMECTINE		○		○		○		○		○		○
okutuntila	Lasota (* n1)			○						○			
okuwenda	KELAMECTIN	○			○				○				○
*n1:yuuuhwena watendulwa milwike iyali (2 weeks)													
Oodhila/oondjuhwa ahihe mu Sept. & March													
VECTOCID: gwedhamo ishewe petameko													

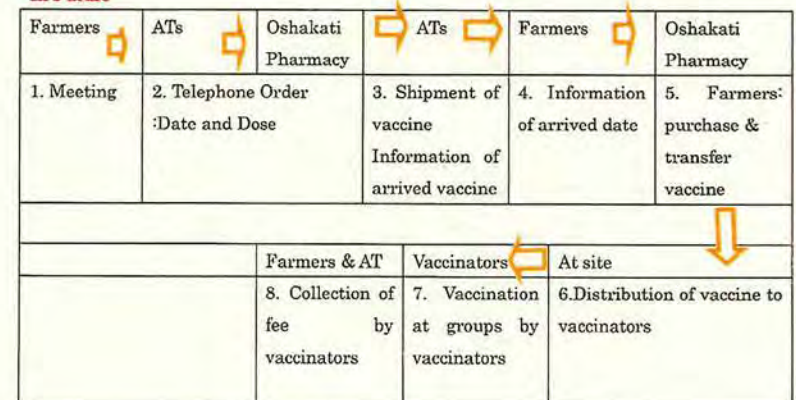
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New Castle Disease (NCD) Vaccine

Chart of NCD vaccination from order to vaccination

In Future



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N-CLIMP

Northern Crop and Livestock Development Master Plan Study

1st Training of ATs Action Plan & Support Plan

October-November 2016



Action Plan (AP) by Famers Representatives

Support Plan (SP) by ATs

(Refer to the handouts)

- ◆ Check the "AP" on challenges and major activities,
- ◆ Check the "SP" on Tech. Measures relevant to challenges, necessary inputs by MAWF and Farmers

Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

No.	Activity	Person in charge	Monitoring	2016			2017			
				Oct	Nov	Dec	Jan	Feb	Mar	Apr
Implementation period: October 2016 to April 2017										
1. General Information										
1.1	Region		Oshana							
1.2	Constituency		Oshakati West							
1.3	Village		Okau Kamasheshe							
1.4	ADC		Okau Kamasheshe							
1.5	AT in charge		Agasia Amon and Luckas Shimoshili							
1.6	Relevant organizations		N-Climp							
2. Group Information										
2.1	Group name		Okau Kamasheshe							
2.2	Representative		Trefiria Angolo							
2.3	Number of Group Members		15 Members							
3. Major Activities										
3.1	Crop (cereal/grains)		Most of the challenges remains the same as last year and in addition the Demo farm Needs to be Expanded.							
3.2	Crop (horticulture)		Need of transport for Farm visits.Early ripping in October Not suitable for the Area.							
3.3	Livestock (cattle)		Need of Hoes.							
3.4	Livestock (small stocks)		Need of fence.							
4. Work Schedule										
4.1	MEETING	Trefina Anodlo	Plan							
4.2	TRAINING	Amon And Luckas	Actual							
4.3	PREPARATION CROPPING PLAN	Martha Somon	Actual							
4.4	RIPPING		Actual							
4.5	MANURE APPLICATION		Actual							
4.6	PLANTING	Fanuel Shinvemb	Actual							
4.7	WEEDING		Actual							

4. Work Schedule										
No.	Activity	Person in charge	Monitoring	2016			2017			
				Oct	Nov	Dec	Jan	Feb	Mar	Apr
4.8	TOP DRESSING		Plan Actual							
4.9	PEST CONTROL		Plan Actual							
5	PREPARATION THRESHING and HARVEST	Trefina Angolo	Plan Actual							
5.1	THRESHING AND STORING	Anofilia angolo	Plan Actual							
5.2	WINNONING STORAGE	Helena	Plan Actual							
5.3	RECORD KEEPING	Trefina Angolo	Plan Actual							
5.4	REVIEW OF RECORD	Ester iyambo	Plan Actual							

AT's Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Date: 18 August 2016

Implementation period: October 2016 to April 2017

Revised Date:

1. General Information	
1.1 Region	Oshana
1.2 Constituency	Oshakati-West
1.3 ADC	Okau-Kamasheshe
1.4 AT in charge	L.K Shimooshili /Amon Agasty
1.5 Activities	Cereal / Grain

2. Relevant Techniques and Technical Measures			
Farmers' Challenge	Relevant Techniques	Necessary Inputs	
		By MAWF	By Farmers
1 Water shortage	CR-3 Conservation Agriculture	Subsidy through DCPD	Settle the subsidy balance
2 Lack of fencing materials	FM-9	Advise farmers to approach Agribank for a loan	Application through Agribank
3 Lack of transport to marketing places	FM-5 Group Formation / Group Strengthening	Advise farmers to organise themselves into marketing groups	Organise themselves
4 Lack of cultivators	CR-2 Cropping Pattern and Crop Management		
5 Low prices	FM-10 Market Information Access Improvement	Advise and train farmers	Organise themselves into farmers group
6 Tractors not enough	CR-2 Cropping Pattern and Crop Management CR3 Conservation Agriculture		
7 Seeds and fertilisers comes late	CR-2 Cropping Pattern and Crop Management		
8 Transport constraints during record keeping capturing (farm visits)	FM-2 Record Keeping		
9 Early ripping in october not suitable for their area	CR-2 Cropping Pattern and Crop Management	Ripping to commence as per farmers request	Modification of farmers cropping calender
10 Addition to the pilot plot			

Farmers Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Implementation period:		Date: October 2016 to April 2017									
1. General Information											
1.1 Region	Oshana										
1.2 Constituency	OKATANA										
1.3 Village	EPYESHONA										
1.4 ADC	UUKWANGULA										
1.5 AT in charge	PRUCHERIA N MWANYANGAPO										
1.6 Relevant organizations	DAPEES,CUVE WATER,CHINA EMBASSY,JICA,CONCILLOR OFFICE										
2. Group Information											
2.1 Group name	DESMOND TSHINYEMBA TSHIKESHO										
2.2 Representative	BEDA SHIKESHO										
2.3 Number of Group Members	10 MEMBERS										
3. Major Activities											
3.1 Crop (cereal/grains)	Old Drip irrigation,Lack of Equipment,(example watering can,lake,hoe,shade net,fencing material,weighing scale), Group strengthening,Training,Greenhouse Repare,Tank,Pests and Diseases,Fertilizer and Seeds,Wheelbarrow.										
3.2 Crop (horticulture)											
3.3 Livestock (cattle)											
3.4 Livestock (small stocks)											
4. Work Schedule											
No.	Activity	Person in charge	Monitoring	2016				2017			
				Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
4.1	GROUP MEETING	KRISTOFINA	Plan Actual								
4.2	PREPARING OF BEDS	ALL MEMBERS	Plan Actual								
4.3	MARKET RESEARCH	4 MEMBERS	Plan Actual								
4.4	INSULATION OF DRIP SYSTEM	TECHNICAL	Plan Actual								
4.5	NURSARY PREPARATION AND CROPPING MANAGEMENT	COMMETTEE	Plan Actual								
4.6	CROP SELECTION/CROPPING PLAN	ALL MEMBERS	Plan Actual								
4.7	TRANSPLANTING OF TOMATOES	2 MEMBERS	Plan Actual								
4.8	TRAINING		Plan Actual								
4.9	WEEDING and THINING	ALL MEMBERS	Plan Actual								
5	PEST CONTROL	ALL MEMBERS	Plan Actual								
5.1	HARVESTING AND SELLING	ALL MEMBERS	Plan Actual								
5.2	CLEANING OF THE DRIP	ALL MEMBERS	Plan Actual								
5.3	RECORD KEEPING	ALL MEMBERS	Plan Actual								

AT's Action Plan for Pilot Site Activities in Phase-2 of N-CLIMP

Implementation period:		October 2016 to April 2017		Date: 18 August 2016
				Revised Date:
1. General Information				
1.1 Region	Oshana			
1.2 Constituency	Okatana			
1.3 ADC	Uukwangula			
1.4 AT in charge	Prucheria N. Mwanyangapo			
1.5 Activities	Horticulture		Horticulture	
2. Relevant Techniques and Technical Measures				
Farmers' Challenge	Relevant Techniques	Necessary Inputs		
		By MAWF	JICA	By Farmers
1 Old drip irrigation	CR-6 Water Saving Cultivation			
2 Lack of equipments e.g watering can,rake,hoes	CR-4 Cropping Plan and Horticulture Crop Management	AT support Farmers, JICA Support		Monthly saving for next replacement
3 Fencing material	CR-4 Cropping Plan and Horticulture Crop Management	JICA support		
4 Weighing scale	FM-10 Market Information Access Improvement	JICA support		
5 Wheel barrow (?)		JICA support		
6 Group Strengthening	FM-5 Group Formation / Group Strengthening, FM-6 Group Account Management	AT support Farmers, JICA Support		
7 Training	FM-2 book keeping/farm record, FM-10 marketing access improvement	AT support Farmers, JICA Support		
8 Green house repair	CR-5 water source/water harvesting	JICA support		
9 Tank(water tank)	CR-6 Water Saving Cultivation	AT support Farmers		
10 Fertiliser and seed	CR-4 Cropping Plan and Horticulture Crop Management			Farmers

Farmers Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Implementation period:	Date: October 2016 to April 2017											
1. General Information												
1.1 Region	OSHANA											
1.2 Constituency	UUVUDHIYA											
1.3 Village	ONDULU											
1.4 ADC	ENGOMBE											
1.5 AT in charge	TAIMI NAMBAMBI											
1.6 Relevant organizations	DAPEES,DUS,MEATBOARD,NAMWATER,CONSERVACY											
2. Group Information												
2.1 Group name												
2.2 Representative												
2.3 Number of Group Members	15 MEMBERS											
3. Major Activities												
3.1 Crop (cereal/grains)	Rangeland Management, Lack of Crushpen,Lack of Water,Fodder Production,No Road Network,Mtc Network. Lack of Livestock Drug shop and Long distance to Pharmacies.Cattle Diseases,Record Keeping. Breeding Management,Lack of Marketing											
3.2 Crop (horticulture)												
3.3 Livestock (cattle)												
3.4 Livestock (small stocks)												
4. Work Schedule												
No.	Activity	Person in charge	Monitoring	2016				2017				
				Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
4.1	GROUP MEETING		Plan									
			Actual									
4.2	TRAINING		Plan									
			Actual									
4.3	FODDER PRODUCTION		Plan									
			Actual									
4.4	RANGELAND MANAGEMENT		Plan									
			Actual									
4.5	HAY BALES MAKING AND SILAGE		Plan									
			Actual									
4.6	DISEASE CONTROL		Plan									
			Actual									
4.7	MARKETING INFORMATION		Plan									
			Actual									
4.8	RECORD KEEPING		Plan									
			Actual									
4.9	ANIMAL HUSBANDURY (castration,dehorning and weaning)		Plan									
			Actual									

AT's Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Date: 18 August 2016

Implementation period:	October 2016 to April 2017		
1. General Information			
1.1 Region	Oshana		
1.2 Constituency	Uuvudhiya		
1.3 ADC	Engombe		
1.4 AT in charge	Taimi M.M		
1.5 Activities	Cattle		
2. Relevant Techniques and Technical Measures			
Farmers' Challenge	Relevant Techniques	Necessary Inputs	
		By MAWF	By Farmers
1 Poor rangeland management	LS-2 Range Management	Conduct farmers training	Participating and implimenting
2 Lack of crushpen	LS-5 Disease Control	DVS to construct the crushpen	Provide manpower and site selection
3 Lack of water	LS-5 Disease Control	DWSS totake it up	Manpower and site selection
4 Fodder production	LS-1 Fodder Production	Silage,bale making and storing, conduct training on fodder cultivation	Participation and implimenting
5 Road network	FM-5 Group Formation / Group Strengthening		
6 Mic Network		Constituancy officer to take it up	
7 Lack of livestock	LS-5 Disease Control and FM-5 Group Formation / Group Strengthening	Strengthening FA to come up wit livestock drug shop	Implimenting and participating
8 Breeding management	LS-7 Periodical Production	Facilitate the bull shceme program	Participating and implimenting
9 Lack of marketing information facilities	FM-10 Market Information Access Improvement	Conduct training	Participating
10 Farm management	FM-2 Record Keeping	Training on record keeping	Implimenting

Farmers Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Implementation period:	Date: October 2016 to April 2017									
1. General Information										
1.1 Region	OSHANA									
1.2 Constituency	UUKWIYU USHONA									
1.3 Village	OKAHONGO									
1.4 ADC	UUKWIYU USHONA									
1.5 AT in charge	KAARINA NGHILWAMO									
1.6 Relevant organizations	DAPEES, JICA, FARMER ASSOCIATION, DVS									
2. Group Information										
2.1 Group name	UUSIKU WAHOLONGO									
2.2 Representative	KLEOPAS ARMAS/FREDRICKA NTINDA									
2.3 Number of Group Members	15 MEMBERS									
3. Major Activities										
3.1 Crop (cereal/grains)	Deseases, Predators, Not enough Feeds, Small Chicken House, No Assesibility to Medicine.									
3.2 Crop (horticulture)										
3.3 Livestock (cattle)										
3.4 Livestock (small stocks)										
4. Work Schedule										
No.	Activity	Person in charge	Monitoring	2016			2017			
				Oct	Nov	Dec	Jan	Feb	Mar	Apr
4.1	GROUP MEETING		Plan Actual							
4.2	GROUP TRAINING		Plan Actual							
4.3	DISEASE CONTROL(VACCINATION)	KLEOPAS	Plan Actual							
4.4	GROUP FORMATION(STRENGTHENING)	ARMAS	Plan Actual							
4.5	MARKET RESEARCH/SURVEY	BOTH ATs	Plan Actual							
4.6	RECORD KEEPING		Plan Actual							

AT's Action Plan for Pilot Site Activities in Phase-3 of N-CLIMP

Implementation period: October 2016 to April 2017 Date: 18 August 2016
Revised Date:

1. General Information			
1.1 Region	Oshana		
1.2 Constituency	Uukwiyu-Uushona		
1.3 ADC	Uukwiyu		
1.4 AT in charge	Kaalina Nghilwamo		
1.5 Activities	Small stocks		
2. Relevant Techniques and Technical Measures			
Farmers' Challenge	Relevant Techniques	Necessary Inputs	
		By MAWF	By Farmers
1 Diseases	LS-5 Disease control	AT give advise	By Farmers
2 Predators	LS-13 Chicken production	AT-Advise supervise farmers	By Farmers
3 No enough feeds	LS-4 Nutrients feed supply	AT-Train farmers to produce	By Farmers
4 Small chicken house	LS-13 Chicken production	MAWF, Council office	By Farmers
5 Not affordable to buy medicine	FM-5 Group formation	Give information to farmers	By Farmers
6 Marketing information	FM-10 Marketing information	AT-give information	By Farmers
7 Record keeping	FM-2 Record keeping	AT-give trainings to farmers	
8			
9			
10			

Training Material 6

2nd AT Training, November 2016

Phase 3

N-CLIMP

Republic of Namibia
Ministry of Agriculture, Water and Forestry (MAWF)

N-CLIMP

NORTHERN CROP AND LIVESTOCK DEVELOPMENT
MASTER PLAN STUDY
IN
THE REPUBLIC OF NAMIBIA

2ND TRAINING FOR AGRICULTURE TECHNICIANS IN PHASE-3

November 2016

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
NIPPON KOEI CO., LTD.

N-CLIMP

Northern Crop and Livestock Production Master Plan Study
in
the Republic of Namibia

2nd Training for Agricultural Technicians of Pilot Site Activities

November 2016

Agenda

Time	Subject	Presenter / Facilitator/ Responsible
08:45-09:00	Registration	◆ Ms. Johanna, N-CLIMP
09:00-09:10	Opening Remarks	◆ Chairperson: CASO, Region Office
09:10-09:15	◆ Confirmation of Agenda and Outputs of the Training	◆ Ms. Akabane
09:15-10:15	◆ Presentation of Results and Findings of 1 st Training for Farmers (5 minutes presentation and 10 minutes discussion per site)	◆ ATs facilitated by Regional DAPEES
10:15-10:30	◆ Coffee Break	◆ Ms. Johanna, N-CLIMP
10:30-11:30	Training on Farm Management (2) ◆ Review of FM 2 (Record Keeping), FM 5 (Group Enhancement) and FM 10 (Market Survey) ◆ FM 8: Collective Procurement ◆ FM 6: Group Accounting Management	◆ ATs facilitated by Ms. Akabane ◆ Ms. Akabane with Ms Aini and Mr Daniel ◆ Ms. Akabane with Mr Benyamin
11:30-11:40	◆ Energizing	◆ Volunteer with Ms. Bernadette
11:40-12:00	◆ Review of Support Plan (ATs)	◆ ATs, Regional DAPEES and Attendants, facilitated by Ms. Bernadette with N-CLIMP Members
12:00-12:40	◆ Preparation of Training Agenda	
12:40-13:10	◆ Role Play or Presentation of Agenda / Materials for 2 nd Farmers' Training for each pilot site	◆ ATs, Regional DAPEES and Attendants, facilitated by Ms. Bernadette with N-CLIMP Members
13:10-13:20	Assessment & Schedule ◆ Evaluation of TOT-2 ◆ Confirmation of Schedule for further activities	◆ Ms. Akabane
13:20-13:30	Closing ◆ Refreshment	◆ Chairperson: CASO, Region Office ◆ Ms. Johanna, N-CLIMP

N-CLIMP

Northern **C**rop and **L**ivestock Development **M**aster **P**lan Study

Farm Management

2nd Training of Trainers:

**FM-8: Collective Selling/
Purchase, and**

**FM-6: Group Account
Management (Draft)**

FM 8: Collective Purchasing

Benefits

1.2. Discussions and Sharing

1. For Farmers (through AT)

Let us work together

- Why do we do collective **purchase**?
- Are there any possibility to do collective **selling**?
- What we need to do for collective purchase / selling?

2. For ATs

Let farmers motivated to work together through

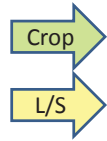
- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ letting them plan for **practical activities**

FM 8: Collective Purchasing

Benefits

Why do we work do collective purchasing?

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**



Preparation for Actual Facilitation with some **Practical Benefits to actual situations:**

- ❖ _____
- ❖ _____
- ❖ _____

Reminder: Group Activities for Crop Production

Crop

- Information Sharing on weather / risk / hazard /prices
- Gaining communal facilities for horticulture (Okatana)
- Collective purchase of fertilisers/ chemicals (to be treated → FM-8)**
- Collective selling of products (→ FM-8) with quality control**
- Collective Transportation for products (Difficulties recognised by farmers of Okashati –West, Ondobe) (to be related to FM-10)

FM 8: Collective Purchasing

Benefits

❑ Why do we work together? → **Benefits**

✓ letting them recognise **Benefits**

Crop

Example of Practical Benefits :

- ❖ Purchasing fertilisers as bulk → Reduction of Prices
- ❖ Purchasing of Drip-Irrigation Kits → Reduction of Prices + Planning of Maintenance as Group
- ❖ Purchasing particular types of seeds → Production with quality control in mind for further “collective selling”.
- ❖ Purchasing of package materials → Production with quality control in mind for further “collective selling”

FM 8: Collective Purchasing

Benefits

❑ Why do we work together? → **Benefits**

✓ letting them recognise **Benefits**

L/S

Example of Practical Benefits :

- ❖ Purchasing vaccination (NCD) : Sharing transportation cost → Reduction of individual payment + Communal protection against the disease
- ❖ Purchasing of seeds for range grass →
- ❖ Purchasing of ingredients for “licks” → reduction of cost for transportation for buying some particular seeds and ingredients (that are not so much common at village level)



Reminder: Group Activities for Livestock Production

L/S

- ❑ Information Sharing on prices / grades / classes of livestock
 - ❑ **Collective purchase of inputs (e.g. vaccine for small stocks)**
 - ❑ Communal use of facilities and equipment's (e.g. animal husbandry kits)
 - ❑ Collective selling of products with Quality Control of Products
- Price Negotiation ?

FM 6: Group Account Management

Needs

1.2. Discussions and Sharing

1. For Farmers (through AT)

Let us work together

- ❑ Why do we need Group Account Management ?
- ❑ What we need to do for Group Account Management?

2. For ATs

Let farmers motivated to work together through

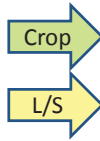
- ✓ letting them recognise **Needs**
- ✓ letting them to discuss **actual situations**
- ✓ letting them plan for **practical activities**

FM 6: Group Account Management

Needs

❑ Why do we need Group Account Management?

- ✓ letting them recognise **Needs**
- ✓ letting them to discuss **actual situations**

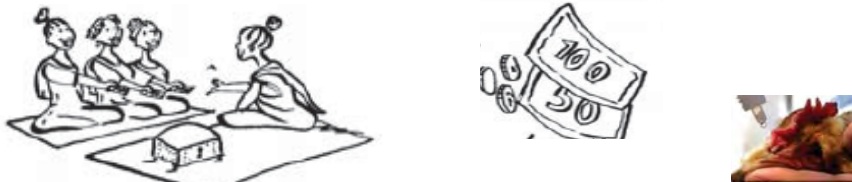


Preparation for Actual Facilitation with some **Practical Needs to actual situations:**

- ❖ _____
- ❖ _____
- ❖ _____

FM 6: Group Account Management

Needs



Example of Practical Needs :

- ❖ Transparency (Accountability): Let **the management team** to understand what happens when the group account is not well organised.
- ❖ Planning: Let **the management team** discuss sustainable and self-reliable ways of implementation of activities.

FM 8: Collective Purchasing

1.2. Discussions and Sharing

1. For Farmers (through AT)

2. For ATs

Let us work together

- ❑ Why do we do collective **purchase**?
- ❑ Are there any possibility to do collective **selling**?
- ❑ What we need to do for collective purchase / selling?

Let farmers motivated through

- ✓ letting them recognise **Benefits**
- ✓ letting them to discuss **actual situations**
- ✓ letting them plan for **practical activities**



Let us look at the practical activities of **Collective Purchasing** and **Group Account Management** for vaccination against New Castle Disease

When we understand this, we can apply the methods to the implementation to other activities even for crop production.

❑ What we need to do for collective purchasing with proper management of group account ?

✓ **letting them plan for practical activities** L/S

Example: Purchasing vaccination against NCD

1. Planning of the activities (FM8)
2. Agreement on Rules / Practical Methods with responsibility sharing / Small-Group Formation (FM8)
3. Agreement on Payment by members (FM6)
4. Implementation (FM8)
5. Reporting of Account Issues (FM 6)



Reminder: New Castle Disease (NCD) Vaccine
Chart of NCD vaccination from order to vaccination

In Future

Farmers	ATs	Oshakati Pharmacy	ATs	Farmers	Oshakati Pharmacy
1. Meeting	2. Telephone Order :Date and Dose	3. Shipment of vaccine Information of arrived vaccine	4. Information of arrived date	5. Farmers' purchase & transfer vaccine	
		Farmers & AT	Vaccinators	At site	
		8. Collection of fee by vaccinators	7. Vaccination at groups by vaccinators	6. Distribution of vaccine to vaccinators	



Reminder: New Castle Disease (NCD) Vaccine
Chart of NCD vaccination from order to vaccination

Farmers	ATs	AGRA Mr.M Dege	Oshakati Pharmacy	ATs	Farmers
1. Meeting	2. Telephone Order :Date and Dose	3. Shipment of vaccine	4. Information of date to arrive	5. Date of arrival	
← N-CLINP →					
Farmers, Vaccinators & AT		Farmers	Oshakati Pharmacy	Farmers	
9. Collection of vaccination fee by vaccinators	8. Vaccination at groups	7. Transfer of vaccine	6. Purchasing of Vaccine		
← N-CLINP →					



Example: Purchasing vaccination against NCD

1st Meeting



Agenda of Farmers' Meeting: Example of Chicken-Growing Group in Village)

1. Prayer
2. Greeting by Chair (Ms Mary)
3. Explanation about the ways of Collective Vaccination Purchasing (Ms Nancy, Vice-Chair)
4. Discussion
5. Confirmation of Decisions Made (All)
6. Closure with Prayer

Discussion Points



• Schedule

Day	No	Activity	Responsible Persons	
14 Nov	Mon	1	Meeting --> Planning -->Agenda	All members : Chair: Ms Mary
15 Nov	Tue			
16 Nov	Wed	2	Reporting the number of chickens with list	Small-group heads and Ms Nancy
17 Nov	Thu			
18 Nov	Fri	3	Calling Pharmacy	Vice-Chair: Ms Nancy (AT)
19 Nov	Sat			
20 Nov	Sun			
21 Nov	Mon			
22 Nov	Tue	4	Info Comes on Date of Vaccine Arrival	Vice-Chair: Ms Nancy (AT)--> Small-group heads -->Members
23 Nov	Wed	5	Arrangement of Transportation	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
24 Nov	Thu			
25 Nov	Fri		Vaccination Day	
		6	Receiving Vaccine at Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		7	Payment to Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		8	Transporting Vaccine	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		9	Receiving Vaccine at Village	Small-group heads
		10	Vaccination Support	Small-group heads
		11	Collection of Vaccine Fees	Small-group heads
26 Nov	Sat			
27 Nov	Sun			
28 Nov	Mon	12	Submission of Vaccine Fees with Lists	Small-group heads --> Treasure (Ms Anne)
29 Nov	Tue			
30 Nov	Wed	13	Account book completion on Vaccine	Treasure (Ms Anne)



Discussion Points

- Schedule (as attached calendar)
- Small-Group Formation with neighbouring
- Rules
- Payment (Treasure: Ms Anne)
- Ways of communication (confirmation of Mobile phones numbers of members)



Discussion Points

- Schedule (as attached calendar)
- Small-Group Formation with neighbouring
- Rules
- Payment (Treasure: Ms Anne)
- Ways of communication (confirmation of Mobile phones numbers of members)



FM 8

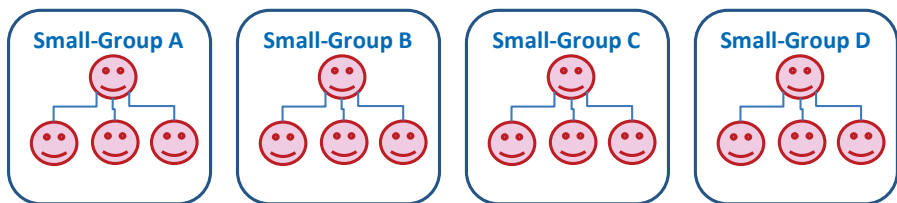
Discussion Points

Agenda of Farmers' Meeting:
Example of Chicken-Growing Group in Village)

L/S

Small-Group Formation with neighbouring

Management Team



FM 6

Discussion Points

Agenda of Farmers' Meeting:
Example of Chicken-Growing Group in Village)

Schedule

Day	No	Activity	Responsible Persons
14 Nov Mon	1	Meeting --> Planning --> Agenda	All members : Chair: Ms Mary
15 Nov Tue			
16 Nov Wed	2	Reporting t	
17 Nov Thu			
18 Nov Fri	3	Calling Pharmacy	Vice-Chair: Ms Nancy
19 Nov Sat			
20 Nov Sun			
21 Nov Mon			
22 Nov Tue	4	Info Comes	Small group heads --> Members
23 Nov Wed	5	Arrangement	(Ms Anne)
24 Nov Thu			
25 Nov Fri		Vaccination Day	
	6	Receiving Vaccine at Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
	7	Payment to Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
	8	Transporting Vaccine	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
	9	Receiving Vaccine at Village	Small-group heads
	10	Vaccination Support	Small-group heads
	11	Collection of Vaccine Fees	Small-group heads
26 Nov Sat			
27 Nov Sun			
28 Nov Mon	12	Submission of Vaccine Fees with Lists	Small-group heads --> Treasure (Ms Anne)
29 Nov Tue			
30 Nov Wed	13	Account book completion on Vaccine	Treasure (Ms Anne)



FM 6

Discussion Points

Agenda of Farmers' Meeting:
Example of Chicken-Growing Group in Village)

- Schedule (as attached calendar)
- Small-Group Formation with neighbouring
- Rules
 - Payment (Treasure: Ms Anne)
- Ways of communication (confirmation of Mobile phones numbers of members)



FM 6

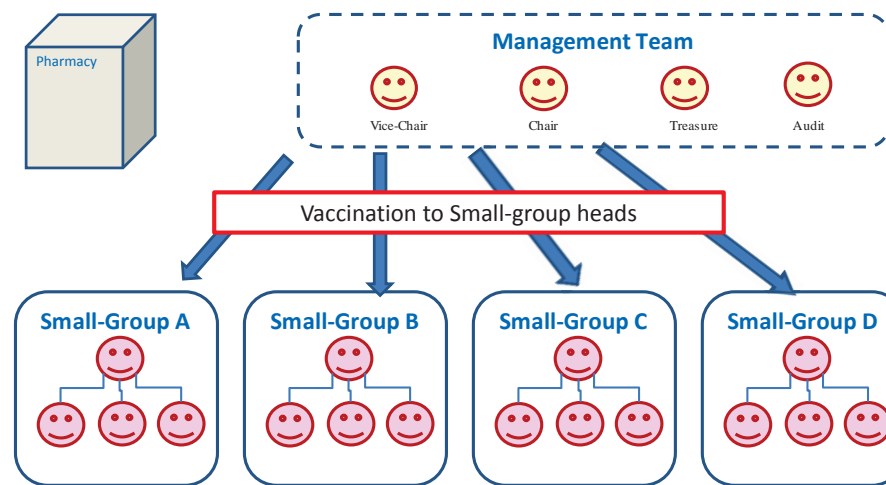
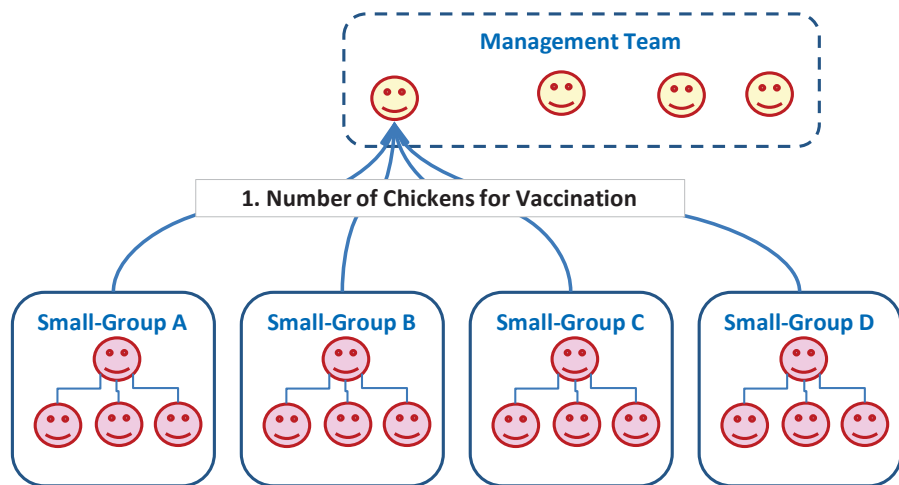
Discussion Points

Agenda of Farmers' Meeting:
Example of Chicken-Growing Group in Village)

	To decide unit fee at the meeting	To confirm way of calculation of fee at the meeting
Example of Output of Meeting	NAD 1 / head	Total cost (vaccine, transportation , package and ice) / total number of chicken vaccinated =fee / head
At the 1 st meeting	Easy	May need to explain in details in the way of calculation.
Collection	Straightforward	Needs to be flexible
Points that Management Team Needs to be Careful	Need to be careful for carry-over money	Need to estimate the expenditure before the 1 st meeting. Otherwise, there could be deficits.

Alternation: If total number of chickens to be vaccinated are 1,000 or more, NAD 0.5 /head, But if less than 1,000, NAD 2/ head





To decide unit fee at the meeting

To confirm way of calculation of fee at the meeting

Example of List on Chicken Number using name list

Group	No	Name	Number
A	1	Ms Mary	10
	2	Mr Daniel	25
	3	Ms Aini	30
	4	Mr Ben	25
B	1	Ms Nancy	20
	2	Ms Johanna	10
	3	Mr Joe	15
	4	Mr Martin	10
C	1	Ms Anne	10
	2	Mr Amon	20
	3	Ms Margaret	30
	4	Ms May	25
D	1	Ms Hilary	20
	2	Mr Clinton	25
	3	Mr Trump	10
	4	Mr Donald	5
Total			290



Discussion Points

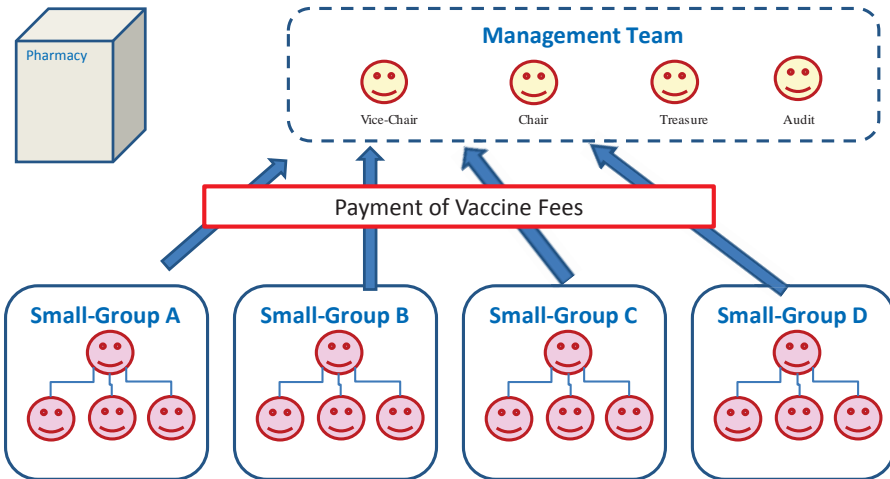
Agenda of Farmers' Meeting: Example of Chicken-Growing Group in Village)

Schedule

		Activity	Responsible Persons
14 Nov	Mon	Meeting --> Planning --> Agenda	All members : Chair: Ms Mary
15 Nov	Tue		
16 Nov	Wed	Reporting the number of chicks with list	Small-group heads and Ms Nancy
17 Nov	Thu		
18 Nov	Fri	Calling Pharmacy	Vice-Chair: Ms Nancy (AT)
19 Nov	Sat		
20 Nov	Sun		
21 Nov	Mon		
22 Nov	Tue	Info Comes on Date of Vaccine Arrival	Vice-Chair: Ms Nancy (AT)--> Small-group heads -->Members
23 Nov	Wed	Arrangement of Transportation	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
24 Nov	Thu		
25 Nov	Fri	Vaccination Day	
		Receiving Vaccine at Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		Payment to Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		Transporting Vaccine	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		Receiving Vaccine at Village	Small-group heads
		Vaccination Support	Small-group heads
		Collection of Vaccine Fees	Small-group heads
26 Nov	Sat		
27 Nov	Sun		
28 Nov	Mon	Submission of Vaccine Fees with Lists	Small-group heads --> Treasure (Ms Anne)
29 Nov	Tue		
30 Nov	Wed	Account book completion on Vaccine	Treasure (Ms Anne)



FM 6



13. Account Reporting (FM6)

Agenda of Farmers' Meeting:
Example of Chicken-Growing Group in Village)

Discussion Points

Schedule

Day	No	Activity	Responsible Persons
14 Nov	Mon	1 Meeting --> Planning --> Agenda	All members : Chair: Ms Mary
15 Nov	Tue		
16 Nov	Wed	2 Reporting the number of chickens with list	Small-group heads and Ms Nancy
17 Nov	Thu		
18 Nov	Fri	3 Calling Pharmacy	Vice-Chair: Ms Nancy (AT)
19 Nov	Sat		
20 Nov	Sun		
21 Nov	Mon		
22 Nov	Tue	4 Info Comes on Date of Vaccine Arrival	Vice-Chair: Ms Nancy (AT)--> Small-group heads -->Members
23 Nov	Wed	5 Arrangement of Transportation	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
24 Nov	Thu		
25 Nov	Fri		
		6 Vaccination Day	
		7 Receiving Vaccine at Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		8 Payment to Pharmacy	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		9 Transporting Vaccine	Vice-Chair: Ms Nancy • Treasure (Ms Anne)
		10 Receiving Vaccine at Village	Small-group heads
		11 Vaccination Support	Small-group heads
		12 Collection of Vaccine Fees	Small-group heads
26 Nov	Sat		
27 Nov	Sun		
28 Nov	Mon	12 Submission of Vaccine Fees with Lists	Small-group heads --> Treasure (Ms Anne)
29 Nov	Tue		
30 Nov	Wed	13 Account book completion on Vaccine	Treasure (Ms Anne)



FM 6

To decide unit fee at the meeting: NAD 2 / head



Example of Account Report: Record of Fee Collection

Group	No	Name	Number	Fee Individual	Fee Group
A	1	Ms Mary	10	NAD 20.00	
	2	Mr Daniel	25	NAD 50.00	
	3	Ms Aini	30	NAD 60.00	
	4	Mr Ben	25	NAD 50.00	NAD 180.00
B	1	Ms Nancy	20	NAD 40.00	
	2	Ms Johanna	10	NAD 20.00	
	3	Mr Joe	15	NAD 30.00	
	4	Mr Martin	10	NAD 20.00	NAD 110.00
C	1	Ms Anne	10	NAD 20.00	
	2	Mr Amon	20	NAD 40.00	
	3	Ms Margaret	30	NAD 60.00	
	4	Ms May	25	NAD 50.00	NAD 170.00
D	1	Ms Hilary	20	NAD 40.00	
	2	Mr Clinton	25	NAD 50.00	
	3	Mr Trump	10	NAD 20.00	
	4	Mr Donald	5	NAD 10.00	NAD 120.00
		Total	290		NAD 580.00



FM 6

To decide unit fee at the meeting: NAD 2 / head




Example of Account Report-1

Received Money

Day/ Month	Description	Amount
01 / Nov	From Previous Season	NAD 350.00
20 / Nov	Vaccine Fees (2 x 290) (List Attached)	NAD 580.00
	Total Received	



FM 6

To decide unit fee at the meeting: NAD 2 / head 

Example of Account Report-2

Paid Money

Day/ Month	Description	Amount
18/Nov	Calling Pharmacy	NAD 10.00
22/Nov	Plastic Box for Transportation (10x4)	NAD 40.00
25/Nov	Transportation (100x 2)	NAD 200.00
30/Nov	Vaccine (150 x 4)	NAD 600.00
	Total	

FM 6

To decide unit fee at the meeting: NAD 2 / head 


Example of Account Report-3

Remaining Money on 30 Nov:

NAD 930.00 (Received Money) —

NAD 850.00 (Paid Money)

= NAD 80.00

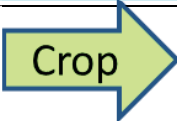
Need to be careful for fee setting for next season. 

FM 6: Group Account Management

What we need to do for Group Accounting?

✓ **letting them plan for practical activities**

Example of Practical Activities:

Crop 

❖ Purchasing seeds

- ❖ _____
- ❖ _____
- ❖ _____

FM 6: Group Account Management

What we need to do for Group Accounting?

✓ **letting them plan for practical activities**

Example of Purchasing particular types of seeds →

Crop 

1. Planning of the activities
2. Agreement on Rules / Practical Methods with responsibility sharing
3. Agreement on Payment by members
4. Implementation
5. Reporting of Account Issues

Vaccination Fee Collection List

Fee setting : / Head

Group / Area	No	Name	Number	Fee Individual	Fee Group
A	1				
	2				
	3				
	4				
B	1				
	2				
	3				
	4				
C	1				
	2				
	3				
	4				
D	1				
	2				
	3				
	4				
		Total	0		

Example

Vaccination Fee Collection List

Fee setting : NAD 1.00 / Head

Group	No	Name	Number	Fee Individual	Fee Group
A	1	Ms Mary	10	NAD 10.00	
	2	Mr Daniel	25	NAD 25.00	
	3	Ms Aini	30	NAD 30.00	
	4	Mr Ben	25	NAD 25.00	NAD 90.00
B	1	Ms Nancy	20	NAD 20.00	
	2	Ms Johanna	10	NAD 10.00	
	3	Mr Joe	15	NAD 15.00	
	4	Mr Martin	10	NAD 10.00	NAD 55.00
C	1	Ms Anne	10	NAD 10.00	
	2	Mr Amon	20	NAD 20.00	
	3	Ms Margaret	30	NAD 30.00	
	4	Ms May	25	NAD 25.00	NAD 85.00
D	1	Ms Hilary	20	NAD 20.00	
	2	Mr Clinton	25	NAD 25.00	
	3	Mr Trump	10	NAD 10.00	
	4	Mr Donald	5	NAD 5.00	NAD 60.00
		Total	290		NAD 290.00

Training Material 7

3rd AT Training, February 2017

Phase 3

N-CLIMP

N-CLIMP

NORTHERN CROP AND LIVESTOCK DEVELOPMENT
MASTER PLAN STUDY
IN
THE REPUBLIC OF NAMIBIA

Pilot Project Activities

3rd Training
for
Agricultural Technicians
in
Phase-3

March 2017

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
NIPPON KOEI CO., LTD.

N-CLIMP

Northern Crop and Livestock Production Master Plan Study
in the Republic of Namibia

3rd Training for Agricultural Technicians
Implementation of Pilot Projects in the Phase 3

02nd March 2017 in Oshana Region
09th March 2017 in Ohangwena Region
16th March 2017 in Oshikoto
23rd March 2017 in Omusati Region

Draft Agenda

Time	Subject	Presenter
08:45-09:00	Registration	
09:00-09:05	Opening Remarks	Chairperson: CASO, Regional DAPEES
09:05-09:20	Introduction	
	◆ Confirmation of Agenda	Mr. Daniei
	◆ Scheduling of Training for Farmers Groups	Ms. Ainy / Mr. Ben
	◆ Reporting of Farmers Field day	Field Day Participant from the Region
09:20-09:40	◆ Presentation of the Progress of Action Plan and Support Plan (5 minutes for each site)	ATs in charge of Pilot Sites, facilitated by Regional DAPEES and N-CLIMP Team
09:40-10:40	Explanation on Farming Model	
	◆ Crops (grains & horticulture)	N-CLIMP Team
	◆ Livestock (large & small stock)	(Mr. Morioka, Dr. Orita, Ms. Akabane)
	◆ Farm Management	
10:40-11:00	Coffee Breaks	Johanna, N. CLIMP Team
11:00-12:00	Review of Technical Measures (TM)	ATs and Attendants, facilitated by Ms. Bernadette, Mr. Daniel, Ms. Aini and Mr. Ben, Assistants of N-CLIMP Team
	◆ Farm management sector (5 TM)	
	◆ Livestock sector (8 TM)	
	◆ Crop sector (8 TM)	
12:00-13:30	Training Coaching	ATs and Attendants, facilitated by N-CLIMP Team (Ms. Bernadette and team members)
	◆ Review of Technical Measures	
	◆ Preparation of Training Agenda by Groups using Flip Charts	
13:30-13:35	◆ Confirmation of Schedule, Supporting comments & opinion	N-CLIMP Team Attendants
13:35-13:40	Closing	Chairperson:
13:40-14:30	Taking photo together, Refreshment & Snacks	Johanna, N. CLIMP Team

N-CLIMP

Northern Crop and Livestock Development Master Plan Study

3rd Training of ATs Introduction and Scheduling of Trainings for Famers Groups

March 2017



Pilot Site Activities in Phase 3

- Phase 1 (Sept. 2014~May 2015)
 - Detailed thematic survey & overall review survey
 - Technical measures & framework of master plan
- Phase 2 (July 2015~May 2016)
 - Pilot site activities with each technical measures
 - Draft master plan based on the results
- Phase 3 (July 2016~April 2017)
 - Pilot site activities with technical measures through integrated manner and initiative by ATs
 - Master plan based on the results
- After Phase 3 (April 2017~)
 - Replicate the pilot site activities by ATs, MAWF

Schedule of 3rd Trainings

17 sites in 4 regions for crop and livestock production

Region Training for ATs	Cereal Grains Training for FGs	Horticulture Training for FGs	Cattle Training for FGs	Small Stock Training for FGs
Omusati Mar. 23 (Thu)	Etayi (Etayi) Mar. xx at xx:00	Etunda (Ruacana) Mar. xx at xx:00	Okahao (Okahao) Mar. xx at xx:00	Tsandi (Tsandi) Mar. xx at xx:00
Oshana Mar. 02 (Thu)	Okau-Kamasheshe (Oshakati-West) Mar. 23 at xx:00	Uukwangula (Okatana) Mar. 13 at 09:00	Engombe (Uuvdiya) Mar. xx at xx:00	Uukwiyu-uushona (Uukwiyu) Mar. 22 at xx:00
Oshikoto Mar. 16 th (Thu)	Okashana (Omuthiya) Mar. 28 at 09:30	Onayena (Onayena) Mar. 29 at 09:30	Omuntele (Omuntele) Mar. 28 at 09:30	Onankali (Onyaanya) Mar. 29 at 10:00 King Kauluma (Nehale-lya-Mpingana) Mar. 30 at 11:00
Ohangwena Mar. 9 th (Thu)	Ondobe (Ondone) Mar. 16 at 10:00	Epembe (Epembe) Mar. 22 at 10:00	Okongo (Okongo) Mar. xx at xx:00	Endola (Endola) Mar. 15 at 10:00

Schedule of 3rd Trainings (Calendar)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Feb. 26	Feb. 27	Feb. 28	Mar. 01	Mar. 02 3 rd TOT [Oshana]	Mar. 03	Mar. 04
Mar. 05	Mar. 06	Mar. 07	Mar. 08	Mar. 09 3 rd TOT [Ohangwena]	Mar. 10	Mar. 11
Mar. 12	Mar. 13 [Okatana]	Mar. 14	Mar. 15 [Endola 10 am] [Okongo 10 am]	Mar. 16 3 rd TOT [Oshikoto] [Ondobe 10am]	Mar. 17 [Uuvdiya] [Omuntele]	Mar. 18
Mar. 19	Mar. 20	Mar. 21	Mar. 22 [Uukwiyu] [Epembe 10 am]	Mar. 23 3 rd TOT [Omusati] [Okau]	Mar. 24	Mar. 25
Mar. 26	Mar. 27	Mar. 28 [Omuntele 09:30] [Omuthiya 09:30]	Mar. 29 [Onayena 09:30] [Onankali 10:00]	Mar. 30 [K. Kauluma 11:00]	Mar. 31	Apr. 01
Apr. 02	Apr. 03	Apr. 04	Apr. 05 Joint Stakeholder Meeting	Apr. 06	Apr. 07	Apr. 08

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Northern Crop and Livestock Development Master Plan Study

3rd Training of ATs Progress of Action Plan & Support Plan

March 2017



Date of Trainings

Region Training for ATs	Cereal Grains Training for FGs	Horticulture Training for FGs	Cattle Training for FGs	Small Stock Training for FGs
Omusati (1) Nov. 01, 2016 (2) Nov. 17, 2016 (3) Mar. 23, 2017	Etayi (Etayi) (1) Nov. 11, 2016 (2) Dec. 19, 2016 (3) Mar. xx, 2017	Etunda (Ruacana) (1) Nov. 08, 2016 (2) Dec. 01, 2016 (3) Mar. xx, 2017	Okahao (Okahao) (1) Nov. 14, 2016 (2) Dec. 02, 2016 (3) Mar. xx, 2017	Tsandi (Tsandi) (1) Nov. 08, 2016 (2) Dec. 01, 2016 (3) Mar. xx, 2017
Oshana (1) Nov. 03, 2016 (2) Nov. 24, 2016 (3) Mar. 02, 2017	Okau-k. (Oshakati-W.) (1) Nov. 18, 2016 (2) Dec. 09, 2016 (3) Mar. 23, 2017	Uukwangula (Okatana) (1) Nov. 14, 2016 (2) Nov. 28, 2016 (3) Mar. 13, 2017	Engombe (Uuvdiya) (1) Nov. 18, 2016 (2) Dec. 14, 2016 (3) Mar. xx, 2017	Uukwiyu-uush. (Uukwiyu) (1) - (2) Nov. 30, 2016 (3) Mar. 22, 2017
Oshikoto (1) Oct. 26, 2016 (2) Nov. 15, 2016 (3) Mar. 16, 2017	Okashana (Omuthiya) (1) Nov. 24, 2016 (2) Dec. 07, 2016 (3) Mar. 28, 2017	Onayena (Onayena) (1) Nov. 30, 2016 (2) Nov. 30, 2016 (3) Mar. 29, 2017	Omuntele (Omuntele) (1) Nov. 11, 2016 (2) Nov. 25, 2016 (3) Mar. 28, 2017	Onankali (Onyaanya) (1) Nov. 09, 2016 (2) Dec. 07, 2016 (3) Mar. 20, 2017 K. Kauluma (N+Mp.) (1) Dec. xx, 2016 (2) Mar. 30, 2017
Oshana (1) Nov. 25, 2016 (2) Nov. 25, 2016 (3) Mar. 09, 2017	Ondobe (Ondobe) (1) Nov. 10, 2016 (2) Dec. 15, 2016 (3) Mar. 16, 2017	Epembe (Epembe) (1) - (2) - (3) Mar. 22, 2017	Okongo (Okongo) (1) Nov. 21, 2016 (2) Dec. 05, 2016 (3) Mar. xx, 2017	Endola (Endola) (1) Nov. 16, 2016 (2) Dec. 08, 2016 (3) Mar. 15, 2017

Technical Measures in each Site (Omusati Region)

Pilot Site	Technical Measures
Etayi (grains)	CR-2 Cropping Pattern & Crop Management, CR-3 Conservation Agriculture, CR-4 Rice-Mahangu Mixed Cropping System
Etunda (horticulture)	CR-6 Water Saving Cultivation, CR-7 Crop Selection & Marketing, CR-8 Cropping Plan & Horticulture Crop Management
Okahao (Cattle)	LS-1 Fodder Production, LS-2 Range Management, LS-5 Disease Control, LS-6 Fattening
Tsandi (chicken)	LS-4 Nutritious Feed Supply, LS-5 Disease Control, LS-13 Chicken Production
Farm Management	FM-2 Record Keeping, FM-5 Group Formation, FM-6 Group Accounting Management, FM-8 Collective Selling / Purchasing, FM-10 Market Information Access Improvement

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Northern Crop and Livestock Development Master Plan Study

3rd Training of ATs Farming Model (Crops & Livestock)

March 2017

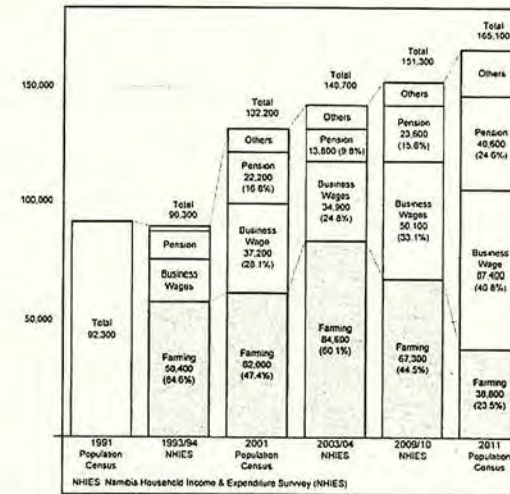


Farming Model

- Households by Main Income Source (NCD)
- Households by Agricultural Activities (NHIES 2009/10)
- Platforms for future farming model
by applying Technical Measures
 - Net income by models (crop + livestock)
 - Crop model (grain: mahangu, horticulture)
 - Cattle model, poultry model
 - Farm management model

2

1. Households by Main Income Source (NCD)



Households: Increasing from 90,000 in 1990s to 165,000 in 2011

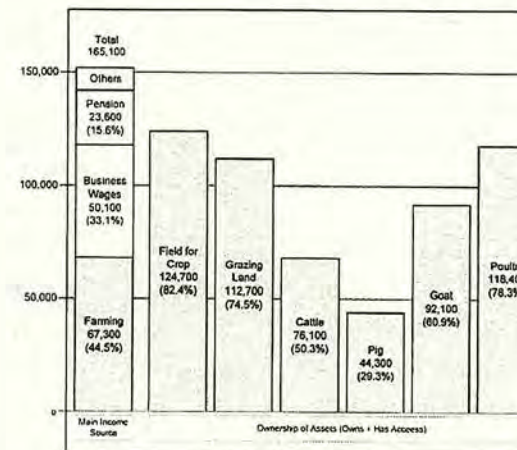
Main Income Activities: Farming, Business / Wages, Pension, Others

Farming (main income): Increasing up to 2003/04 at max. 60% of households, Decreasing thereafter at 24% of households.

Farming (main income) further to decrease in future due to

3

2. Households by Agricultural Activities (NHIES 2009/10)



Field for Crop: 80% of households

Grazing Land: 75% of households

Cattle: 50% of households,

Goat: 60% of households,

Poultry: 80% of households,

Households with income source other than farming: many households engaging in farming.....

4

Annual Net Income by Farming Model

Farming Model	Crop (Cereal Grains, Horticulture)	Livestock (Cattle & Chicken)
Small Scale Farmer: N\$14,300 - Main income: off-farm income - Sub-income: farming, subsistence	Grains 3 ha + Garden 150 m ² Net Income: N\$2,800 (grains: N\$1,600, vegetables: N\$1,200)	10 Cattle + Chickens (1 cock + 10 hen) Net Income: N\$11,500 (cattle: N\$3,400, chicken: N\$8,100)
Medium Scale Farmer: N\$26,600 - Main income: farming - Sub-income: off-farm income	Grains 6 ha + Garden 150 m ² Net Income: N\$5,900 (grains: N\$4,700, vegetables: N\$1,200)	30 cattle + Chickens (1 cock + 10 hen) Net Income: N\$21,700 (cattle: N\$13,600, chicken: N\$8,100)
Medium Scale Farmer 2: N\$41,300 - Main income: (farming) - Sub-income: off-farm income	-	114 cattle Net Income: N\$41,300 (300 cattle: N\$123,900)
Medium Scale Farmer 3: N\$19,600 - Main income: (farming) - Sub-income: off-farm income	Grain 100 ha (400 kg/ha) Net Income: N\$19,600	-
Small Scale Horticulture Farmer: N\$105,000 - Main income: farming - Sub-income: no income	Etunda Irrigation scheme 3 ha Net Income: N\$105,000 (10 ton/ha, 2 crops)	-

5

Crop Farming Model

Farming Model	A. Production, Marketing Surplus	B. Production Cost
Grains: 3 ha Net Income: N\$1,600	Production: 3 ha x 400 kg = 1,200 kg Home Consumption: 100 kg x 5.1 person = 510 kg Marketable Surplus: 1,200 kg - 510 kg = 690 kg Gross income: 690 kg x N\$4.5/kg = N\$3,100	Home Manure for Basal, Family Labor Seed & Fertilizer: N\$200 Ploughing: Ripper Furrow N\$1,200 Miscellaneous: N\$100 Total Production Cost: N\$1,500
Horticulture: 150 m² Net Income: N\$1,200	Production: 2 kg/m ² x 150 m ² x 3 crops = 900 kg Home Consumption: 40 kg x 5.1 person = 200 kg Marketable Surplus: 900 kg - 200 kg = 700 kg Gross income: 700 kg x N\$3.5/kg = N\$2,450	Production Cost = 50% of Gross Income = N\$1,250
Grains: 6 ha Net Income: N\$4,700	Production: 6 ha x 400 kg = 2,400 kg Marketable Surplus: 2,400 kg - 510 kg = 1,890 kg Gross income: 1,890 kg x N\$4.5/kg = N\$8,500	Manure, Seed & Fertilizer: N\$400 Labor & Tractor Services N\$3,100 Miscellaneous: N\$300 Total Production Cost: N\$3,800
Grains: 100 ha Net Income: N\$19,600	Production: 100 ha x 400 kg = 40,000 kg Marketable Surplus: 40,000 kg - 510 kg = 39,490 kg Gross income: 39,490 kg x N\$4.5/kg = N\$177,700	Manure, Seed & Fertilizer: N\$56,700 Labor & Tractor Services: N\$22,000 Miscellaneous: N\$14,400 Total Production Cost: N\$158,100
Small Scale (Etunda) Horticulture Farmer: 3 ha Net Income: N\$105,000	Production: 10 ton / ha x 3 ha x 2 crops = 60,000 kg Gross income: 60,000 kg x N\$3.5/kg = N\$210,000	Production Cost = 50% of Gross Income = N\$105,000

6

Cattle model

Livestock Model	A. Production & Gross Income	B. Production Cost
10 Cattle	2 Cattle Sale: 4,300 N\$ x 2 = 8,600 N\$	60% Cost: 5,200 N\$ <u>Net Income: 3,400 N\$</u>
30 Cattle	7 Cattle Sale: 4,300 N\$ x 8 = 34,400 N\$	60% Cost: 20,800 N\$ <u>Net Income: 13,600 N\$</u>
114 Cattle	24 Cattle Sale: 4,300 N\$ x 24 = 103,200 N\$	60% Cost: 61,900 N\$ <u>Net Income: 41,300 N\$</u>
1 Cock + 10 Hens	90 Chickens Sale: 100 N\$ x 90 = 9,000 N\$ 90 Chicks Sale: 60 N\$ x 90 = 5,400 N\$ <u>Total 14,400 N\$</u>	Feeding: Case1: 0 N\$: Used own Mahangu Case2: 2,830 N\$: Half purchased Mahangu Case3: 5,660 N\$: All purchased Mahangu Disease control : 1,910 N\$. Water: 110 N\$. Housing etc.: 1,500 N\$ <u>Net Income: Case1: 10,900 N\$, Case2: 8,100 N\$, Case3: 5,200 N\$</u>
1 Cock + 30 Hens	405 Chickens Sale: 100 N\$ x 405 = 40,500 N\$ 405 Chicks Sale: 60 N\$ x 405 = 24,300 N\$ <u>Total 64,800 N\$</u>	Feeding: Case1: 0 N\$: Used own Mahangu Case2: 13,490 N\$: Half purchased Mahangu Case3: 26,980 N\$: All purchased Mahangu Disease control : 8,410 N\$. Water: 305 N\$. Housing etc.: 5,000 N\$ <u>Net Income: Case1: 51,100 N\$, Case2: 37,600 N\$, Case3: 24,100 N\$</u>

7

Herd component

Herd structure (%) in NCA

■ Cows ■ Bulls ■ Heifers ■ Ox ■ Male calf ■ Female calf



Herd structure (%) of Ideal model



8

Model

Herd Structure		Sales (Off take rate :21%)	
Cows	40	Cows	10
Bulls	2	Heifers	2
Heifers	12	Steers/Oxen	12
♀ Calves	12	Total	24
♀ Calves 1-2Y	12		
♂ Calves	12		
Steers/Oxen 1-2Y	12		
Steers/ Oxen 2-3Y	12		
Total numbers	114		
Calving /year	27		
Mortality rate : 12%	3		
Alive calves	24		

Calving rate: 66.6% : Calving interval 18 months

Calves/Cows Rate : 24/40=60%

Mortality rate: 12% : 3 heads lost from 27 calving

Off take rate: 21%

Gross income	24 X N\$4,300 = \$ 103,200
60% cost	N\$ 103,200 x 60% = N\$61,920
Net income	N\$(103,200 - 61,920) = N\$41,280
** Net income of N\$ 120,000 /Year: N\$ 10,000 / Month	
N\$ 120,000 /year	→ 2.9 Times more : 331 heads

Costs	
Herders employment: N\$600 x 12 months =N\$7200 x 3 herders = N\$21,600	21,600
Medication : 100N\$ x 114 heads =11,400N\$	11,400
Animal Husbandry: Dehorning, Castration , Branding etc.	5,000
Supplements + Fodders + Water and Maintenance	23,920
Total cost	61,920

Poultry model
Minimum productivity case

Unit:
Cock 1 + Hen 10



- 1 hen produces 20 chicks per a year : twice hatching per year
- A half feed supply (50%) is scavenging and the rest (50%) is grain (mahangu : millet)

Total balance

Food from (50% Grain + 50% Scavenging)

	N\$
Gross income(sales)	14,400
Feeding	2,830
Disease control	1,910
Water : 10.1m ³ × 11 N\$ ÷	110
Housing & Maintenance	1,500
Net income N\$	8,050

Total balance

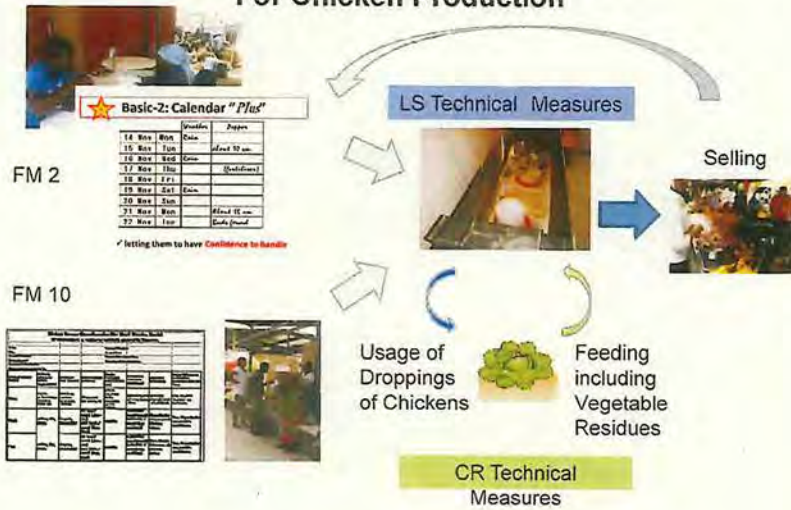
100 % food from Grain Millet

	N\$
Gross income(sales)	14,400
Feeding	5,660
Disease control	1,910
Water : 10.1m ³ × 11 N\$ ÷	110
Housing & Maintenance	1,500
Net income N\$	5,220

Total sales (N\$)



Sales	N\$	No.	Gain(N\$)
Adult chicken	100	90	9,000
Chicks	60	90	5,400
			≡ 14,400 N\$

Ideal Farm Management Model: through reviewing TMs Individual / Household Practice For Chicken Production



Ideal Farm Management Model For Small-Scale Irrigation Horticulture: Explanation on Reasons for working in Group in view of cost effectiveness (Home-Garden of 30 m2)

Items	Cost with Bucket Kit	
	NAD	Specification
Bucket	50	20 Litre & over (black)
Kit	567	
Adapter	20	(metal, set of male and female)
Horse Pipe	300	(100 m)
Total	887	

Items	Cost with Bucket with Pipes	
	NAD	Specification
Bucket	50	20 Litre & over (black)
Drip Pipe	2,200	(for 500m)
Ball-valve unit	100	
T Connector	3	
Elbow Connector	3	
Adapter set	10	
Horse Pipe	300	(100 m)
Total	2,616	

Items	Cost with Bucket Pipe with Group of 25	
	NAD	Specification
Bucket	50	20 Litre & over (black)
Drip Pipe	88	(for 20m)
Ball-valve unit	100	
T Connector	3	
Elbow Connector	3	
Adapter set	10	
Horse Pipe	300	(100 m)
Total	504	


Working in a Group allows farmers to reduce initial facility costs through collective purchase

Ideal Farm Management Model Group Practice For Chicken Production



Ideal Farm Management Model For Small-Scale Irrigation Horticulture: Explanation on Reasons for working in Group in view of cost effectiveness (150m2)

Items	Cost with Drum Kit	
	NAD	Specification
Drum	1,200	220 Litre
Kit	2,753	(for 150m2)
Pipe from water source	440	(100m for Epembe)
Ball-valve unit	100	
T Connector	3	
Total	3,296	



Items	Cost with Drum with Pipes	
	NAD	Specification
Drum	1,200	220 Litre
Drip Pipe	2,200	(for 500m)
Filter	70	(Smallest)
Elbow Connector	6	(NAD3 x 2)
Pipe from water source	440	(100m for Epembe)
Ball-valve unit	100	
Starter Drip Connector	20	(NAD2 x 10)
End Cap	10	
Total	2,846	

Items	Cost with Drum with Pipes in Group of 3	
	NAD	Specification
Drum	1,200	220 Litre
Drip Pipe	733	(60m)
Filter	70	(Smallest)
Elbow Connector	6	(NAD3 x 2)
Pipe from water source	440	(100m for Epembe)
Ball-valve unit	100	
Starter Drip Connector	20	(NAD2 x 10)
End Cap	10	
Total	1,379	

Working in a Group allows farmers to reduce initial facility costs through collective purchase

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Northern Crop and Livestock Development Master Plan Study

3rd Training of ATs Review of Technical Measures

March 2017



Technical Measures applied at Pilot Sites

Crop production (CR) (8 nos.)

Grains
CR-1: Fertilizer Application
CR-2: Cropping Pattern & Crop Management
CR-3: Conservation agriculture
CR-4: Flood- and Drought-Adaptive Cropping System
Horticulture
CR-5: Water Source / Water Harvesting
CR-6: Water Saving Cultivation
CR-7: Crop Selection & Marketing
CR-8: Cropping Plan & Crop Management

Livestock production (LS) (8 nos.)

Feed supply
LS-1: Fodder Production
LS-2: Range Management
LS-4: Nutritious Feed Supply for Chicken
Production
LS-5: Disease Control
LS-6: Large and Small Stock Fattening
LS-7: Periodical Production
LS-11: Goat Production
LS-13: Chicken Production

Farm management (FM) (5 nos.)

FM-2: Record Keeping (Farm Record)
FM-5: Group Formation / Group Strengthening
FM-6: Group Accounting Management
FM-8: Collective Selling / purchasing
FM-10: Market Information Access Improvement

Technical Measures in each Site (Omusati Region)

Pilot Site	Technical Measures
Etayi (grains)	CR-2 Cropping Pattern & Crop Management, CR-3 Conservation Agriculture, CR-4 Rice-Mahangu Mixed Cropping System
Etunda (horticulture)	CR-6 Water Saving Cultivation, CR-7 Crop Selection & Marketing, CR-8 Cropping Plan & Horticulture Crop Management
Okahao (Cattle)	LS-1 Fodder Production, LS-2 Range Management, LS-5 Disease Control, LS-6 Fattening
Tsandi (chicken)	LS-4 Nutritious Feed Supply, LS-5 Disease Control, LS-13 Chicken Production
Farm Management	FM-2 Record Keeping, FM-5 Group Formation, FM-6 Group Accounting Management, FM-8 Collective Selling / Purchasing, FM-10 Market Information Access Improvement