



Bern University
of Applied Sciences

Presenting Key Findings and Results in Step 7

Dr. Ingrid Fromm

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Objectives of Step 7

- ▶ Present own key findings and conclusions
 - ▶ Verbalization of knowledge
- ▶ Complete own findings with others' knowledge
- ▶ Structure and synthesize acquired knowledge
 - ▶ Links, contradictions, different views...
- ▶ Discover still missing knowledge
 - ▶ Open questions

Structure of Step 7

- ▶ Short round on learning sources
- ▶ Results and conclusions: for each learning question,
 - ▶ Visualize the learning question (scribe-> headings)
 - ▶ Present:
 - ▶ Key findings
 - ▶ Personal conclusions
 - ▶ Discuss and synthesize the results: links, contradiction, structure
 - ▶ Make a group conclusion
- ▶ Come back to the learning questions and the PC
 - ▶ Did we really answer the learning questions?
 - ▶ Do we understand the PC better?
- ▶ Formulate open questions if you still have significant knowledge gaps

Current Problems in Step 7

- ▶ Same learning sources
- ▶ Not well prepared for step 7
- ▶ Always the same way to present findings

Consequences:

- ▶ Boring process
- ▶ Superficial discussions

Some Solutions

In Step 6:

- ▶ Search for other documents than in moodle
- ▶ Plan carefully self-study time

In Step 7:

- ▶ Alternative visualization techniques
- ▶ Paraphrasing and summarizing

conclusion

1.1

1.2

1.3

1.4

2.1

2.2

compared with other both systems are extensive

Land & Water: competition of fodder with food

Heat stress
→ bad for crossbreeds
→ endemic diseases

Multi-objective
low input & output

single objective
high level input & output

→ fodder
→ Breeds

Yes → influence on intergeneration
fought & care of care

... prefer going by step local cattle
with a \times much \times cross breed

change need more labour, cash, land, marketing...

Improved cattle more susceptible to diseases, stress

Change: Dependence on water, electricity, roads

Problems are not to find crossbreed bulls but to identify good genes

Important breeding programme → have to improve collect of information

Heterosis → depression
Farmers are disappointed

Milk ↑ ⇒ good quality animals ⇒ breeding programme & farmers

AI was the key factor for large-scale crossbreeding

2.3

2.4

2.5

zero grazing
↳ importance of fodder production

fodder contents is most limiting factor for crossbreed potential

because it pay or because they don't have alternative

→ Crossbreeds are not adapted
→ fodder limitation

The breeds have more potential, but can't fulfill

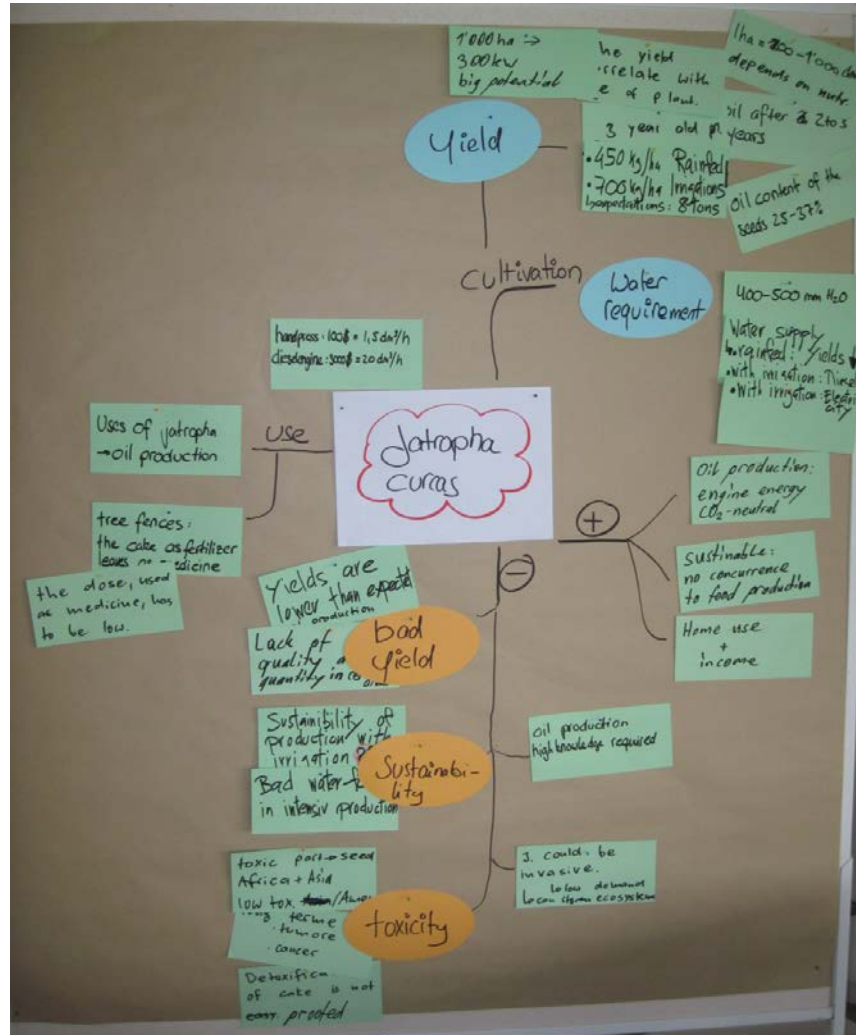
High concentrated fodder — High yield.

The traditional breeds have a shadier diet

Some Alternative Methods

- ▶ Mind map
 - ▶ Charting
 - ▶ SWOT
 - ▶ Relationship map of stakeholders
 - ▶ Cause-effect map
- ➔ **Not adapted to all kinds of LQ**

The Mind Map



Chart

	⊕	⊖
Irrigated	<ul style="list-style-type: none"> climatic risk is rather low little methane production quick field drying → harvest 	<ul style="list-style-type: none"> potential water stress yield reductions than more fertilizer used
Rainfed lowland	<ul style="list-style-type: none"> rare fertilizer use middle methane production rotary weeder can be used 	<ul style="list-style-type: none"> risk of drought + unexpected floods Enough water has to accumulate in the field to soften the soil before plowing
Upland	<ul style="list-style-type: none"> No transplanting work Almost zero methane production No flooding needed → growing in slopes / low lying areas 	<ul style="list-style-type: none"> Low soil fertility (soil not flooded → low P & N efficacy) weed problems low yields
Deepwater	<ul style="list-style-type: none"> natural rising & falling water levels are given traditional varieties grown a lot of small-scale farmers income 	<ul style="list-style-type: none"> High seed mortality High methane production weed competition at seedling stage

Charting

ARTICLES

CONCEPTS

growing conditions / Cultivation practices

1

Min 300-400mm precipitation

poor soils

3rd-5th year = max yield

Mali: 3,5-5th

2

abandoned lands low need of water

3

more water need

India: rainfed vs irrig. 450kg vs 750kg

Conflict potential within household com due to misguiding promotion...

USES

VSE: Medicines, candle oil, no food

Biodiesel

Fence

Longint Erosion

seed cake

organic fertilizer

Biofuel

Biofuel

Advantages & Disadvantages

⊖ need of sp Knowledge

low input ⊕

low risk

Opportunity ⊕ for small farms

sell products ⊕ → standard of living ↑

possibility to ⊕ have electricity

No economic benefit

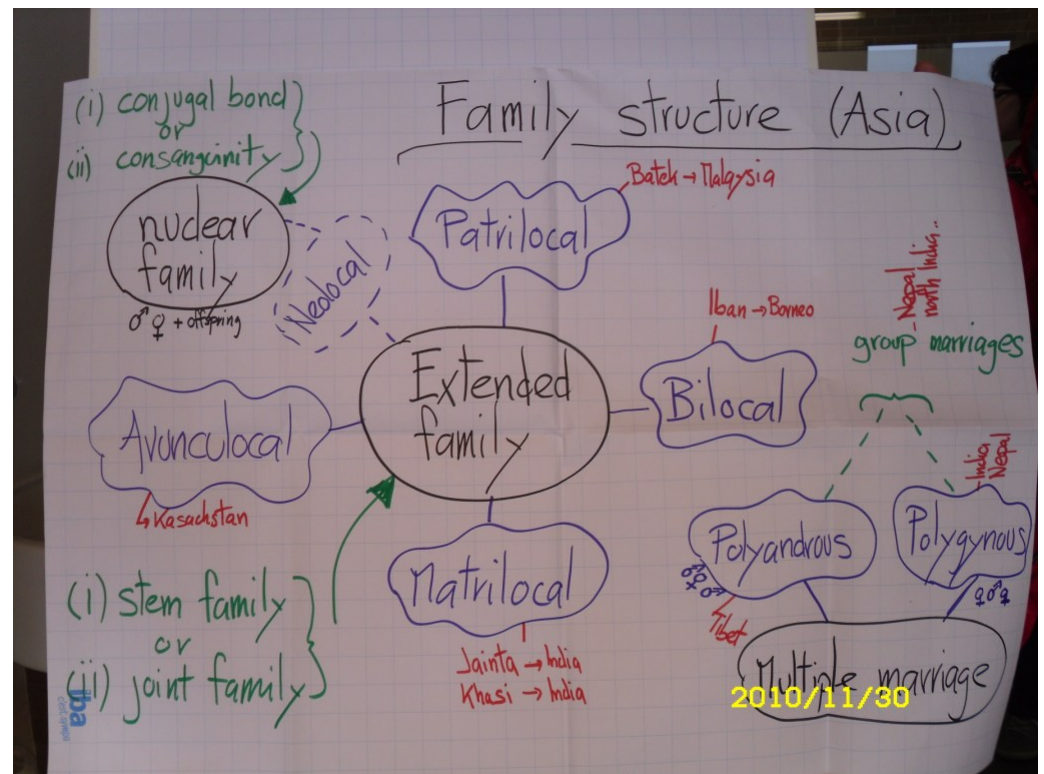
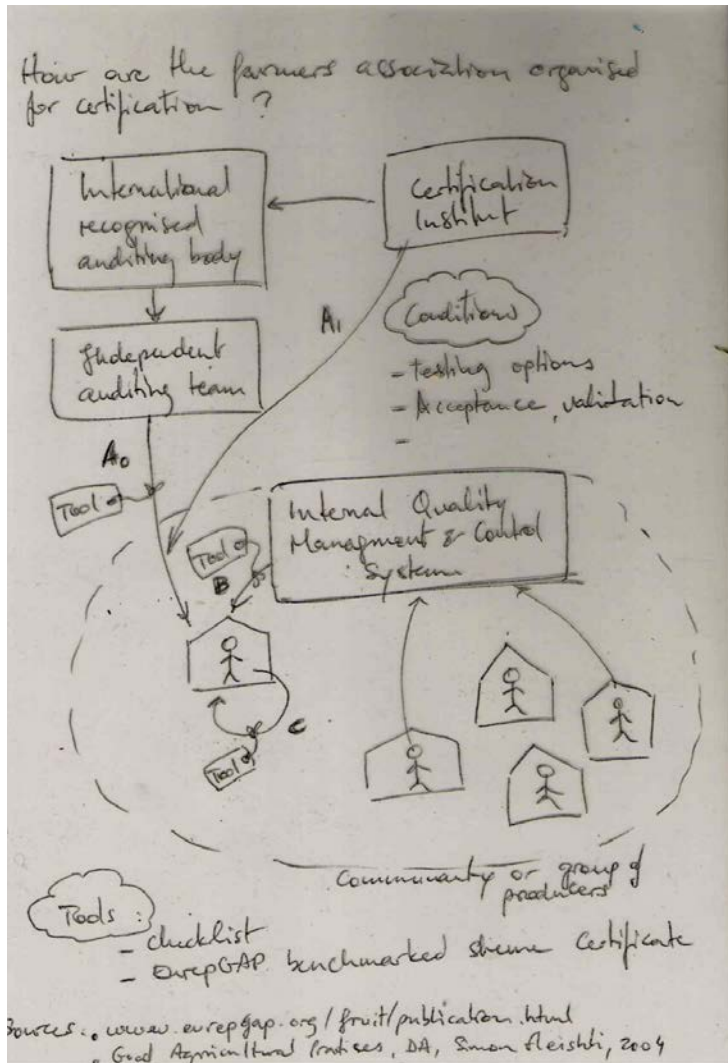
high need ⊖ of water

opportunity ⊖ costs

SWOT

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
Oil can be used directly in a diesel motor	contains toxic ↳ all parts of plant	Developing high-growth varieties	conflict states - farmers (biofuel) have
Production in small and big farms	5 x more water than sugarbeets waste	independent energie production	Competition + food crop
Needs 100-500 mm min water	1.5 x more water than for soybeans = to have the same amount of biofuel	Supporting from Netherlands / developed countries	challenges - seed quality - biofuel policy
Positive effect for families' increasing income	good yield: irrigation needed (in 1 year!) ^{2 for better yields}	Non toxic varieties from Mexico	Invasiveness character of Jatropha ↳ danger for other
good benefits for woman	farmers' make losses! no money-making expensive	If detoxification of seed cake possible: many uses	needed: - higher yields - inputs → not for small-scale
Machines cheaper to run with vegetable oil	other crops would bring better incomes to farmer		
grows on abandoned land or hedge	yields much lower than literature tells us (450-500 kg/ha - irrigated)	farmers don't care anymore about the plants	
alternative to common oil, etc.			
Uses - → wind break → oil → soap			
oil to product ↳ on the farm possible			
sustainable way energie producing?			
CO ₂ neutral energie products			

Relationship Map of Stakeholders



Cause-Effect Map

