



Knowledge Transfer - the East-West Seed approach

Rutger Groot, Chairman Knowledge Transfer Foundation East-West Seed

Our business model: integrated seed company



R&D



- Plant breeding technologies to improve crops for specific market needs
- Upgrading the quality of vegetables
- 14 R&D stations in 6 countries

Seed production



- Contract farming creates employment for farmers in rural areas
- Ensures steady supply of high quality seeds

Seed processing & QA



- State-of-the-art seed processing facility
- ISTA certified QA laboratory
- Seed technology to add value

Marketing & distribution



- Local distribution network
- Export to regional markets in 60+ countries

Knowledge Transfer



- Knowledge transfer to farmers on modern practices
- On-field demos
- Peer learning

Why we need knowledge transfer



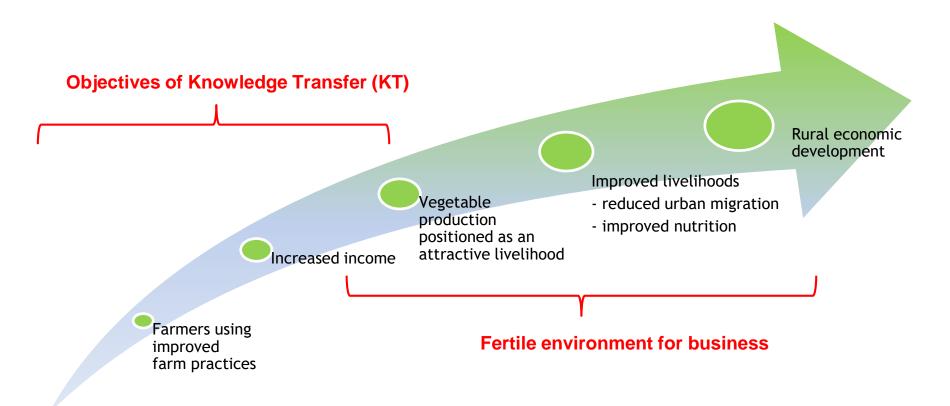
- Lack of access to knowledge and skill development
- Poor farm practices or traditional cultivation techniques
- Limited access to improved vegetable varieties and agri-supply inputs
- Public extension barely functions in many countries
- Public extension excludes vegetables

Increasing the income of smallholder farmers



Impact to the economy





Mission and vision of Knowledge Transfer



VISION

To be the partner of choice in the development of a vibrant and sustainable vegetable sector, bringing widespread impact to smallholder farmers.

MISSION

To improve the livelihood and income of farmers by sharing them unbiased and evidence-based knowledge and information.

Approaches of Knowledge Transfer



1. Training

Sessions to discuss techniques linked to the growth stages of the crops

2. Demonstrations

Showcase improved practices to inspire other farmers

3. Field Days

Invite farmers from the area to learn, review and discuss the improved techniques applied

Technologies promoted



- Use of hybrids seeds
- Use of trays and protected nurseries for seedling production
- Raised beds
- Mulching
- Proper field layout
- Integrated pest management
- Integrated crop management

KT operations across **EWS** group





AFRICA

- Ethiopia
- Ghana
- Nigeria
- Tanzania
- Uganda

ASIA

- Bangladesh
- Cambodia
- India
- Indonesia

- Myanmar
- Philippines
- Thailand

TRAINING (practical from land preparation to harvest)



PHILIPPINES



TANZANIA



TRAINING



CAMBODIA



INDIA



TRAINING



THAILAND INDONESIA



TRAINING



MYANMAR



UGANDA



DEMONSTRATION









FIELD DAYS









KT STRATEGIES AND STAKEHOLDERS



1. WORK FOR

- Smallholder farmers
- Students in higher education

2. PARTNER WITH

- GO's and development agencies
- Educational Institutions
- Government Departments
- Local business

3. DIALOGUE WITH

- Donors
- NGO's
- Government

Direct outreach to smallholder vegetable farmers





Reaching directly to farmers:

- 23,000 in 2015
- 36,000 in 2016
- 70,000 in 2017
- 100,000 in 2018
- Long term target 200,000/yr

Wider indirect outreach through:

- Crop guides (agro dealers)
- Social media and YouTube
- Linking with existing platforms
- Training service providers (input dealers, NGOs, govt extension etc)

KT APP IN SERVING FARMERS BETTER



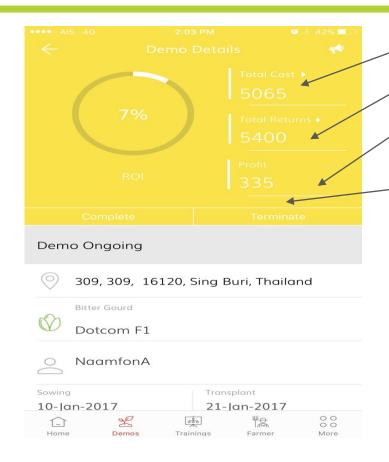
- Monitor on-going approaches (training, demo and field days) per area/ country
- Keep records of cost and return of farmers to generate analysis
- Directly of farmers and staff during visit
- Generate reports for all level of managers and technical specialists





KT app: screen of cost and returns per crop





Total costs on the demo, actual costs.

Total returns on the demo, actual returns.

Returns - Costs = profit

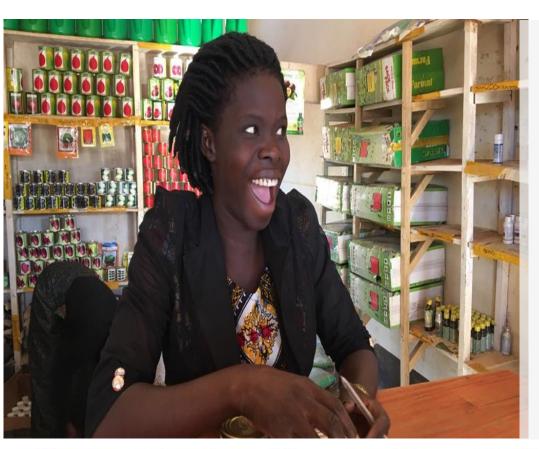
The color of the upper side screen changes as per the profit percentage as below ranges:

0-40% - Yellow, 41-60% - Orange, 61-100% - Green



IMPACT TO FARMERS





- Knowledge catalyses innovation
- Competitive input markets
- Quality production aligned to local markets
- Sustainable production
- Higher incomes
- Vegetable seen as a rewarding livelihood

KT Impact Assessment Study



KNOWLEDGE TRANSFER MECHANISMS IN SMALL-SCALE FARMING FAMILIES: A FOCUS ON GENDER

CASE STUDIES ACROSS SOUTHEAST ASIA

From a research study by Johann Bonnand Under supervision of Sigrid Wertheim-Heck With Wageningen University and Research



GENDER AND EXTENSION

Extension services

- "Technology transfer" => strengthening of farmers' ability and capacity
- Variety of actors
- Variety of extension services
- Empowerment of rural communities should optimize the use of inputs => increased income

Gender, extension and social capital

- Weak access and inappropriate extension services for female farmers
- Social capital: isolation of women
- Importance of peer learning to cope with knowledge gap



OBJECTIVES

Objectives

- Unveil the knowledge transfer mechanisms within a family, community or village
- Uncover the women's role and situation in this knowledge transfer
- Understand how to ensure a continuous transfer of knowledge in these communities





INDONESIA

Context in West Timor

- Limited gender gap
- Uncompetitive market
- Work in groups on common demonstration plots

Women's role and situation

- Proactive involvement of female farmers compared to wait-and-see behaviour from male farmers
- Strong link between members of farmers' groups reducing gender issues

- Enhanced peer learning through a collective work and mind-set
- Learn theoretically and in practice
- Before sharing, they want to gain confidence
- · Challenges: experience, wait-and-see behaviour

THAILAND

Context

- Competitive market
- Access to modern inputs and information
- Vegetable, a side-activity



- Low incentive from male farmers to attend trainings
- Common decision-making
- Defined activities in the field according to gender
- Relative gender equality/strong beliefs and rumours



- Observations but hiding information to each other
- Importance of success and preexistent relationship for knowledge transfer between farmers
- Low trust in companies and theoretical trainings
- More interested in problem-solving support



Context

- Men working outside the farm
- Women working on small or homegardening scale
- Labour scarcity, low market opportunities

Women's role and situation

- Most of participants are women
- Men take back the decision power when scaling-up the activity
- Preference for female trainers but importance of trust developed with the staff

CAMBODIA

- Mechanisms
 Observing and moving to other farms to gain knowledge, ask staff for new information
- Trust in more confident and experienced farmers
- Challenges: low mobility, low educational level, labour scarcity

<u>Myanmar</u>

Context

- Situation of debt
- Diverse ethnicities
- Low market development

Women's role and situation

- Leader of the household is attending training
- High difference according to the ethnicity
- Knowledge transfer: Women -> Men OK! but Men -> Women ≈≈

- Low educational level is constraining gain of knowledge and farmers' exchanges
- Importance of experience and pre-existence of a relationship for knowledge transfer between farmers
- Challenges: low educational level, debts, resources access



ANALYSIS

Attendance to training

- Highly contextual but more women participating in training
- Men adopting more often a wait-and-see behaviour, lower interest in vegetable crops

Other factors influencing women's attendance

- Low mobility
- Pro-active behaviour
- Household objectives
- Educational level
- Ethnicity

- Household leadership
- Main activity or source of income
- Information from brokers
- Organization of training

Knowledge transfer at a family level

- Most of them share knowledge, verbally and in practice, shortly after training
- Men's leadership and women confinement to household chores =>

CONCLUSION

- In a competitive market, farmers observe and discuss with each other to adopt the most profitable crops and practices
- Importance of the educational level in farmers' trust and exchanges
- Women have sometimes an important role in KT mechanisms but it is highly context-specific

REFLECTIONS

- A more participatory approach to combine theory and practice? Requiring group management
- Encourage and enhance exchanges between farmers (key farmer certification?)
- Training of more female extension officers, make sure that conditions are gathered to make women confident to participate in training
- Trainings of public extension officers