International Research Training Group Sustainable Resource Use in North China

Knowledge Transfer Systems in China – an example of vegetable intercropping systems in Hebei province

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Hebei province

Fig. 1: Map of Hebei province

- Population 67 million; land size 188.000 km^2
- Highly unsustainable agricultural production

Fig. 2: Overuse and pollution of surface and ground water

- Fertile soils vs. poor farmer

Fig. 3: Manual labor is predominant

- Vegetable production increases heavily
- Intercropping uses resources more efficient
- Higher yields on limited land

Qualitative inquiry

- Interviewing farmers, extensionists and researchers
- Methods, development, chances and constraints of vegetable intercropping
- Semi-structured interviews (Berg, 2005)
- More than 60 hours of recorded interviews

Fig. 4: Interviewing extensionists, researchers and farmers

Vegetable intercropping systems

- Intercropped with maize
- Agro-forestry systems
- Pure vegetable intercropping

Fig. 5: Intercropping of vegetables with maize and cotton

Intercropping system transfer

- Developed by farmers
- Tested, improved, transferred by extensionists
- Researchers pick up, but no return of findings

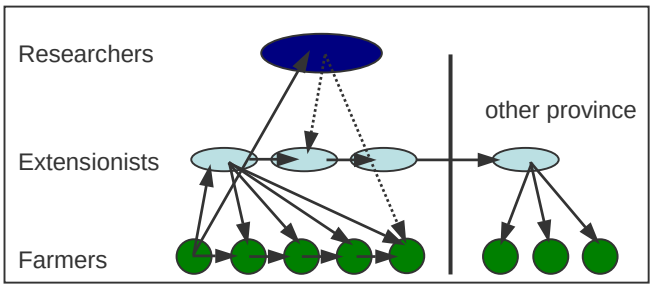

Fig. 6: Transfer of intercropping system on different levels

Fig. 7: Prevailing opinions of researchers and extensionists

Conclusions

- Huge variety of vegetable intercropping systems
- Transfer: first bottom-up, then top-down
- Lack of communication: researchers and extensionists

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