



Training seminar by lectures and discussion on the topic of effective crop farming by conservation tillage in the Vocational training center for agriculture in Barnaul (Peter Liebelt)

Vocational Training (Federación Rusa)

Профессиональное обучение

DESCRIPCIÓN

Regular in-service training of land use specialists and farm managers in the fields of sustainable land use management, and monitoring in the agrarian sector.

Aims / objectives: By, as well as improved linkages of the agricultural consulting systems with universities and vocational training facilities,

Through targeted improved knowledge transfer, the Vocational Training Center is strengthening links between the agricultural consulting/ advisory systems, universities and vocational training facilities. The aim is to enhance capacity building and knowledge transfer for a better consultation / advisory system, especially. This concerns alternative conservation measures and SLM in rural areas. The centre and members of the different sub-projects of the KULUNDA project gave lectures covering up-to-date research results and on various topics, including SLM technologies (no-till and minimum tillage). Socio-economic and ecological impact was covered, as well as environmental monitoring. This took place at the 'Barnaul Institute for Qualification in Agriculture'. These lectures are embedded into an existing training programme for young professionals within the agronomic service and extension service/ advisory service as well as heads of agricultural enterprises.

Through the targeted improved knowledge transfer between the agricultural consulting/ advisory systems, universities and vocational training facilities we want to strengthen the implementation of conservative conservation technologies in agricultural practice.

Methods: It is also planned to present project results on the topic of sustainable land management in the State Agrarian University in Barnaul, which is the main training centre for future agronomists. This presentation takes different forms – for example through poster presentations or conferences. The implementation courses material/ modules are partially running (for lectures at the Barnaul Institute for Qualification in Agriculture) or are under preparation. Furthermore, there is a plan to cooperate with the Altai State University to organise a seminar on the topic entitled "Laboratory analysis to investigate soil conditions". Thus it helps to implement new methods of environmental monitoring into the current teaching program.

Stages of implementation: More recently, the project's partner, the German company Amazone, has started an initiative of vocational training for young people in the region: these students are being given the opportunity to enhance their knowledge at the company's production site in Samara and to learn about technical aspects of the two SLM technologies, namely no-till and minimum till.

Role of stakeholders: The measures are aimed at different stakeholder groups within the Altai Krai identified in the AKIS-Network (Agricultural Knowledge and Information System). The greatest importance is attached to the stakeholders of extension service and agricultural producers/ heads of agricultural enterprises because of the high level of dependency on the successful implementation of the SLM technologies on their knowledge and support. The

LUGAR



Lugar: Mikhaylovski district, Altai Krai, Federación Rusa

Georreferencia de sitios seleccionados

• 79.6975, 52.52082

Dato de inicio: 2013

Año de conclusión: 2016

Tipo de Enfoque

☒ tradicional/ local
☐ iniciativa local reciente/ innovadora
☐ proyecto/ basado en un programa

managers who participated in advanced trainings are mainly from economically strong agricultural enterprises.



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Interview during the KULUNDA training session in the Vocational training center concerning the contents of the event and the aim of the approach. (Peter Liebelt)

METAS DEL ENFOQUE Y ENTORNO FACILITADOR

Propósitos/ objetivos principales del Enfoque

The Approach focused mainly on SLM with other activities (Knowledge transfer and capacity building not only in the field of soil conservation but also in the resulting socioeconomic and environmental effects and ways to improve regional development in rural areas.)

Improvement of technology adoption through: Capacity building, training and knowledge transfer. Awareness raising.

The SLM Approach addressed the following problems: There is a lack of knowledge on current scientific findings regarding innovative agronomic methods like minimum and no-till and a lack of awareness concerning the importance of the conservation technologies for economic and ecological sustainable farming strategies. A big problem is that the system for advising farmers is not sufficient, although there is a state institution for this purpose. There is a lack of awareness about the importance of vocational training, and lack of international, scientifically-based expertise in the regional institution conducting vocational training.

Condiciones que facilitan la implementación de la/s Tecnología/s aplicadas bajo el Enfoque

Condiciones que impiden la implementación de la/s Tecnología/s aplicadas bajo el Enfoque

- **Normas y valores sociales/ culturales/ religiosos:** Insufficient acceptance by land users of new and externally developed methods. Historically-caused low levels of trust among farmers/ land users that, amongst others, limits the transfer of 'good farming practices'. Treatment through the SLM Approach: Awareness raising, training and knowledge sharing for environmental problems due to non-adapted farming systems. Specifically targeted policies (e.g. provision of grants or credit for the establishment of producer groups) and awareness raising.
- **Disponibilidad/ acceso a recursos y servicios financieros :** High cost of new minimum and no-till machinery and difficult access to credits. Budget limitations are proportionately greater with smaller farms (highly variable yields reduce farm profitability, limited access to external funds) Treatment through the SLM Approach: In the training modules specialists were trained on how to improve the profitability, to work economically and rationally by implementing alternative conservation measures and SLM as well as by efficient personnel management in the agricultural enterprises.
- **Entorno institucional:** Unfavourable framework conditions and low capacity of the administration to monitor the state of land and to enforce the soil protection law which would oblige land users to adopt conservation measures. Treatment through the SLM Approach: The approach did not address this factor.
- **Marco de trabajo legal (tenencia de tierra, derechos de uso de tierra y agua):** Unclear land use rights. High share of rented land. Missing incentives to stimulate land users to adopt conservation practices. Secure land use rights motivates to more conscious care for the land and stimulates farmers to adopt better practices. Treatment through the SLM Approach: Discussion of the options to strengthen the role of 'State Redistribution of Funding' in favour of funding land protection. The existing land ownership, land use rights / water rights moderately hindered the approach implementation Our findings support the evidence that land ownership is rather a hindering factor for the farmers. It has several reasons. There are still some legislative and administrative weaknesses that limit the full execution of the ownership rights (non-defined borders, lacking cadastral registration of some plots, missing owners, etc.). When farmers face such difficulties, they are less willing to invest in the own land. Furthermore, around half of the land utilised in Altai krai is owned by the state (of that around 2 mil. hectares are administered by the Redistribution Fund). The conditions under which the land is provided do not require the farmers to adopt more sustainable land practices. As above mentioned, this would call for the strengthening of the land allocation criteria. Another aspect to be considered is the capacity of the state monitoring agency (State Veterinary and Phytosanitary Controls) and if it would be capable to control the compliance of the rules provided the land use conditions are stricter.
- **Conocimiento de MST, acceso a apoyo técnico:** In Russia conventional/ traditional cultivation still prevails, although market for no-till technologies is fully developed and functional. Various machinery companies either have branches or production units in Russia. Treatment through the SLM Approach:

PARTICIPACIÓN Y ROLES DE LAS PARTES INTERESADAS INVOLUCRADAS

Partes interesadas involucradas en el Enfoque y sus roles

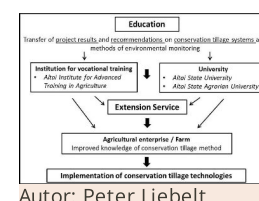
| ¿Qué partes interesadas/ entidades implementadoras estuvieron involucradas en el Enfoque? | Especifique las partes interesadas | Describa los roles de las partes interesadas |
|---|--|--|
| usuarios locales de tierras/ comunidades locales | Farmers of the investigation area in the district Altai Krai There are more men working in the area of crop production as women. More men participated | |
| especialistas MST/consejeros agrícolas | Advisers in the field of cropping systems | |
| gobierno nacional (planificadores, autoridades) | Ministry of Agriculture | |
| Staff member of the project | German and Russian scientists of the project | |

Involucramiento de los usuarios locales de tierras/ comunidades locales en las distintas fases del Enfoque

| | ninguno pasivo apoyo externo interactivo auto-movilización | |
|------------------------|---|--|
| iniciación/ motivación | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | The embedded training measures modules are embedded in the already existing training program of vocational training centre in Barnaul. At the last seminar land users and specialists were the target audience. Interactive lectures (teaching modules) were held. The participants of the seminar were actively involved by asking questions as well as by intensive discussions. |
| planificación | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | The planning of the approach was first of all project-internal in consultation with the head of the regional vocational training institute in Barnaul. |
| implementación | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | Interactive lectures to agricultural consultants/ extension agents/ advisory services and farmers on latest findings and recommendations of the KULUNDA project. Following the lectures the participants could ask questions and discuss the various research results presented. In addition, brochures and USB-sticks containing project results and lectures were distributed. |
| monitoreo y evaluación | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | Evaluation after the event through project intern discussions as well as interviews with regional stakeholder |
| Research | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | The vocational training is mainly intended to inform the audience (target groups) about the scientific results and their application-specific relevance by the scientific project staff. The audience is not involved in research work. |

Flujograma

The chart is intended to show the importance of the vocational training by the 'Institute for advanced training in agriculture' concerning knowledge transfer and capacity building. Knowledge transfer takes place either directly or indirectly through the advisory service to the farmers. Due to the capacity building measures and resulting better knowledge of the farmers about conservation technologies this approach will better enable them to implement conservation technologies.



Autor: Peter Liebelt

La toma de decisiones en la selección de Tecnología MST

Las decisiones fueron tomadas por

- ☐ solamente usuarios de tierras (autoiniciativa)
- ☐ principalmente usuarios de tierras con el apoyo de especialistas MST
- ☐ todos los actores relevantes, como parte de un enfoque participativo
- ☒ principalmente por especialistas MST en consulta con usuarios de tierras
- ☐ solo por especialistas MST
- ☐ por políticos/ líderes

La toma de decisiones se basa en

- ☐ la evaluación de conocimiento MST bien documentado (la toma de decisiones se basa en evidencia)
- ☐ hallazgos de investigaciones
- ☐ la experiencia personal y opiniones (no documentadas)

APOYO TÉCNICO, FORTALECIMIENTO INSTITUCIONAL Y GESTIÓN DEL CONOCIMIENTO

Las siguientes actividades o servicios fueron parte del enfoque

- ☒ Construcción de capacidades / capacitación
- ☒ Servicio de asesoría
- ☐ Fortalecimiento institucional (desarrollo institucional)
- ☒ Monitoreo y evaluación
- ☐ Investigación

Construcción de capacidades/ capacitación

Se proporcionó capacitación a las siguientes partes interesadas

- ☒ usuarios de tierras
- ☒ personal de campo/ consejeros

Forma de capacitación

- ☐ en el contexto de trabajo de agricultor a agricultor
- ☐ áreas de demostración
- ☐ reuniones públicas
- ☒ cursos

Temas avanzados

Competitiveness of agricultural enterprises, ecologically and economically effective farm management through the use of resource-conserving crop production, costs for introducing modern tillage systems, personnel management, monitoring systems

Servicio de asesoría

Se proporcionó servicio de asesoría

- ☐ en los campos de los usuarios de tierras
- ☒ en centros permanentes

Name of method used for advisory service: Vocational training for land use specialists / advisers and land user; Key elements: Knowledge / exchange, Capacity building, Training of trainers

There is already mainly a governmental advisory structure. The consultants are able to make recommendations for soil conserving technologies. However, we have observed a missing international expertise and demand of consultation for the farmers.

Monitoreo y evaluación

Technical aspects were ad hoc monitored by project staff, government, land users through observations; indicators: information and discussion on the technical observation results relating conservation technologies by the target groups Technical aspects were ad hoc monitored by project staff, government, land users through measurements; indicators: information and discussion on the technical measurement results relating conservation technologies by the target groups Economic / production aspects were ad hoc monitored by project staff, government, land users through observations; indicators: information and discussion on the economic observation results relating economic parameters (margin profit and others) by the target groups Economic / production aspects were None monitored by project staff, government, land users through measurements; indicators: information and discussion on the technical measurement results relating conservation technologies by the target groups Management of Approach aspects were None monitored by None through observations; indicators: information and discussion on the management observation results relating the approach by the target groups There were no changes in the Approach as a result of monitoring and evaluation There were no changes in the Technology as a result of monitoring and evaluation

FINANCIAMIENTO Y APOYO MATERIAL EXTERNO

Presupuesto anual en dólares americanos para el componente MST

- ☐ < 2,000
- ☒ 2,000-10,000
- ☐ 10,000-100,000
- ☐ 100,000-1,000,000
- ☐ > 1,000,000

Precise annual budget: n.d.

Approach costs were met by the following donors: international (German Ministry of Education and Research, BMBF): 100.0%

Los siguientes servicios o incentivos fueron proporcionados a los usuarios de las tierras

- ☒ Apoyo financiero/material proporcionado a los usuarios de tierras
- ☒ Subsidios para insumos específicos
- ☐ Crédito
- ☐ Otros incentivos o instrumentos

Apoyo financiero/material proporcionado a los usuarios de tierras

The Altai Institute for Advanced Training in Agriculture that is publicly founded provided personnel staff, an auditorium and has made the promotion for the event.

parcialmente financiado
totalmente financiado

preparation of training material

☒

El trabajo de los usuarios de las tierras fue

- ☐ voluntario?
- ☐ comida por trabajo?
- ☐ pagado en efectivo?
- ☐ recompensado con otro tipo de apoyo material?

ANÁLISIS DE IMPACTO Y COMENTARIOS DE CONCLUSIÓN

Impactos del Enfoque

No
Si, un poco
Si, moderadamente
Si, mucho

¿El Enfoque ayudó a los usuarios de tierras a implementar y mantener Tecnologías MST?

☒

The approach vocational training helps to improve the quality of advisory service and to inform directly the land user. It have been shown that the vocational training (Institute for Advanced Training in Agriculture) is a suitable way for knowledge transfer. The higher knowledge of the land user and land use specialists / advisers help to implement new conservation technologies. Vocational training of course is not a new invention but the aim of the project initiated learning modules was to present information that are up-to-date and on in the field of con

¿El Enfoque empoderó a grupos en desventaja social y económica?

☒

The implementation of the technology is not primarily aimed at these issues.

¿El Enfoque mejoró cuestiones de tenencia de tierra/ derechos de usuarios que obstaculizaron la implementación de la Tecnologías MST?

☒

The problem is unlikely to be overcome in the near future.

Did other land users / projects adopt the Approach?



Motivación principal del usuario de la tierra para implementar MST

- ☒ producción incrementada
- ☒ incremento de la renta(bilidad), proporción mejorada de costo-beneficio
- ☐ reducción de la degradación de la tierra
- ☐ reducción del riesgo de desastres naturales
- ☒ carga de trabajo reducida
- ☒ pagos/ subsidios
- ☐ reglas y reglamentos (multas)/ aplicación
- ☐ prestigio, presión social/ cohesión social
- ☒ afiliación al movimiento/ proyecto/ grupo/ redes
- ☐ conciencia medioambiental
- ☐ costumbres y creencias, moral
- ☐ conocimiento y capacidades mejorados de MST
- ☐ mejoramiento estético
- ☐ mitigación de conflicto

Sostenibilidad de las actividades del Enfoque

¿Pueden los usuarios de tierras sostener lo que se implementó mediante el Enfoque (sin apoyo externo)?

- ☐ no
- ☒ sí
- ☐ incierto

The Altai Institute of vocational training can continue with the help of learning modules and various information materials that we prepared as implementation products under the project.

CONCLUSIONES Y LECCIONES APRENDIDAS

Fortalezas: perspectiva del usuario de tierras

- To have a platform for discussion and knowledge exchange with different national stakeholder groups as well as international scientists (How to sustain/ enhance this strength: Regular meetings for knowledge exchange.)
- To get information about the latest international 'trends' in agriculture that aim at economically effective, resource-saving and environment-friendly cropping management (How to sustain/ enhance this strength: Regular presentation of innovations and new results that are up to date and on international high level.)

Fortalezas: punto de vista del compilador o de otra persona recurso clave

- Capacity building (How to sustain/ enhance this strength: Through better linkage between the actors of different stakeholder groups (see point 1) and by regular teaching and consultation)
- Better knowledge transfer (How to sustain/ enhance this strength: By presenting practice-oriented project findings, which show the current state of research.)
- Improved linkage between different stakeholder groups like specialists, advisers and farmers/ land users (How to sustain/ enhance this strength: By regular joint vocational workshops and seminars on education, research, consulting, needs of end users with actors of the Agricultural Knowledge and Information System network in the Altai region. For the realization of this purpose the regional "Altai Vocational Training Centre in Barnaul was and can be used as a platform.
-)
- Better consultation of land users and specialists (How to sustain/ enhance this strength: By presenting use-oriented project findings, which present the current state of research as well as discussions about the presented issues.)

Debilidades/ desventajas/ riesgos: perspectiva del usuario de tierras cómo sobreponerse

- For land user it takes a lot of effort like high costs and time to visit the event in the capital Barnaul.

Debilidades/ desventajas/ riesgos: punto de vista del compilador o de otra persona recurso clave cómo sobreponerse

- In contrast to the field seminar the vocational training is more theoretical, which is less attractive for farmers Combination of different implementation measures like vocational training for the theoretical background and the field seminar to show the opportunities of technology implementation in practice.

REFERENCIAS

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Descripción completa en la base de datos de WOCAT

https://qcat.wocat.net/es/wocat/approaches/view/approaches_2544/

Datos MST vinculados

Technologies: Minimum Tillage https://qcat.wocat.net/es/wocat/technologies/view/technologies_1315/
Technologies: Minimum Tillage https://qcat.wocat.net/es/wocat/technologies/view/technologies_1315/

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Proyecto

- Book project: Making sense of research for sustainable land management (GLUES)
- Sustainable land management in the Russian steppes (KULUNDA / GLUES)

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