Stakeholders at the experimental plot with drip irrigation (Anatoly Zeiliguer)

Concerted thinking on common problems of water scarcity (Russie)

Жить рядом – думать об общей воде (Russian)

DESCRIPTION

Testing and disseminating of a water-saving technology like drip irrigation

Aims / objectives: The objective of the Rural Development Programme (RDP) is to assist farmers who have to deal with difficult environmental conditions (drought, steep slopes) in applying sustainable farming practices either at the implementation phase or for maintenance. The programme is carried out to: 1) improve the socio-economic conditions of rural areas; 2) prevent land abandonment, and 3) prevent on-site and off-site damage caused by land degradation and erosion. To achieve these objectives, the RDP identifies different lines of action: 1) compensation for difficult natural conditions; 2) combating erosion; 3) reducing farming intensity; and 4) promoting eco-friendly agricultural practices.

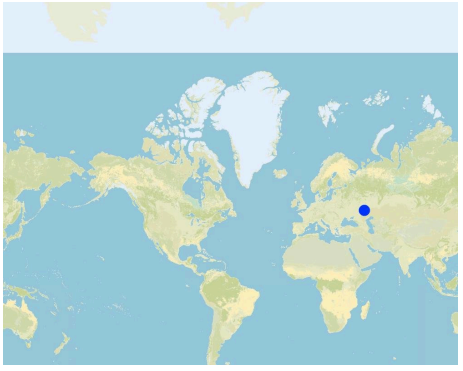
Methods: The main method used in RDP is to provide farming subsidies for farming practices following a cross-compliance principle. Each line of action implies a combination of conservation measures that are subsidised, but only when applied in combination. Hence, single conservation measures outside of these lines of action are not subsidised.

Stages of implementation: Two years of testing with following phase of result dissemination.

Role of stakeholders: The level of subsidy is based on estimated implementation and maintenance costs and possible loss of productivity caused by the conservation measures. These values were obtained after consultation with various stakeholder groups including farmer organisations with agricultural cooperatives. However, because of limited resources, not all farmers will receive subsidies for conservation measures. Priority is given to: 1) farmers who have 50% of their land within the Nature 2000 network, a European-wide network of protected areas for the preservation of habitats and threatened species; 2) farmers with >50% of their land in unfavourable zones; and 3) farmers who did not receive subsidy in previous RDPs.

Other important information: Furthermore, areas with slopes of more than 20% are not subsidised in this programme since it is recommended that no agriculture should take place. Instead, reforestation of these areas is subsidised. RDPs are developed for a period of seven years. At the end of this period, a new RDP is defined and priorities and levels of subsidies may be changed. The present RDP is valid for the period 2007-2013

LIEU



Lieu: Pallasovsky district, Volgograd region, Russia, Russie

Géo-référence des sites sélectionnés

- 46.0, 50.0

Date de démarrage: 2002

Année de fin de l'Approche: 2011

Type d'Approche

- ☐ traditionnel/ autochtone
- ☐ initiative/ innovation récente locale
- ☑ fondé sur un projet/ programme

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OBJECTIFS DE L'APPROCHE ET ENVIRONNEMENT FAVORABLE

Principaux objectifs de l'Approche

The Approach focused on SLM only

To consider the common problems of water scarcity at villages remote from water sources. To provide the best examples of water usage and initiate implementation of water-saving technologies.

The SLM Approach addressed the following problems: The main problem to be addressed by this approach is the conflicts over the common use of water supplied to the villages. In this dry area, water is scarce and has to be brought from remote rivers, lakes and artificial water storage facilities through irrigation channels. In the dry season, when water demand exceeds availability, there is a pivotal problem of poor water availability for all villagers. During the most difficult period, water even has to be transported to the villagers' houses by car.

Conditions favorisant la mise en oeuvre de la/(des) Technologie(s) appliquée(s) sous l'Approche

Conditions entravant la mise en oeuvre de la/(des) Technologie(s) appliquée(s) sous l'Approche

- **Normes et valeurs sociales/ culturelles/ religieuses** : People do not know much about water-saving technologies. Whatever they learn about it, they are convinced that it is very complicated or too costly. Treatment through the SLM Approach: Organization of training seminars, sharing ideas between farmers
- **Cadre juridique (régime foncier, droits d'utilisation des terres et de l'eau)**: The existing land ownership, land use rights / water rights moderately hindered the approach implementation

PARTICIPATION ET RÔLES DES PARTIES PRENANTES IMPLIQUÉES DANS L'APPROCHE

Parties prenantes impliquées dans l'Approche et rôles

Quels acteurs/ organismes d'exécution ont été impliqués dans l'Approche?	Spécifiez les parties prenantes	Décrivez le rôle des parties prenantes
exploitants locaux des terres / communautés locales		Testing of drip irrigation on their subsidiary plots, participation in monitoring activities, training and dissemination. Owing to simple installation and control of drip irrigation, it is promising that disadvantaged people grow vegetables and fruits for their own consumption in order to improve their income and to save water for domestic use.
organisations communautaires	Collective farmers are involved in approach for future implementation of it at vegetable plantation	
Spécialistes de la GDT/ conseillers agricoles	Agronomists as well as reseachers were involved in this approach by development scheme of applications, advising people.	
gouvernement national (planificateurs, décideurs)	Administration of the region was informed about DESIRE project activities. It supports the activities by giving advice, introduction to useful people.	

Participation des exploitants locaux des terres/ communautés locales aux différentes phases de l'Approche

	aucun	passive	soutien extérieur	interactive	auto-mobilisation	
initiation/ motivation				✓		SLM specialists - introducing the technology to people Planners - introducing the technology to people ready for testing it
planification				✓		SLM specialists - planning of test implementation Land users - agreement to test the technology
mise en œuvre			✓			SLM specialists – implementation of schemes development Land users – preparation of experimental plots
suivi/ évaluation			✓			Land users - simple monitoring of drip irrigation system performance
Research			✓			Land users – reporting of water used for irrigation, workload and harvested yield

Diagramme/ organigramme

Prises de décision pour la sélection de la Technologie de GDT

Les décisions ont été prises par
- les exploitants des terres seuls (auto-initiative)
- principalement les exploitants des terres soutenus par des spécialistes de la GDT
- tous les acteurs concernés dans le cadre d'une approche participative
- ✓ principalement les spécialistes de la GDT, après consultation des exploitants des terres
- les spécialistes de la GDT seuls
- les responsables politiques/ dirigeants

Les décisions ont été prises sur la base de
- l'évaluation de connaissances bien documentées en matière de GDT (prises de décision fondées sur des preuves tangibles)?
- les résultats de recherches?
- expériences et opinions personnelles (non documentées)

SOUTIEN TECHNIQUE, RENFORCEMENT DES CAPACITÉS ET GESTION DES CONNAISSANCES

Les activités ou services suivants ont fait partie de l'approche
- ✓ Renforcement des capacités/ formation
- ✓ Service de conseils
- ✓ Renforcement des institutions (développement organisationnel)
- ✓ Suivi et évaluation
- ✓ Recherche

Renforcement des capacités/ formation

La formation a été dispensée aux parties prenantes suivantes
- ✓ exploitants des terres
- personnels/ conseillers de terrain

Formats de la formation
- sur le tas
- entre agriculteurs (d'exploitants à exploitants)
- ✓ zones de démonstration
- ✓ réunions publiques
- cours

Sujets abordés

drip irrigation technology, knowledge about varying quantities for plants during the growing season according to the hydrological cycle, etc.

Service de conseils

Le service de conseils était fourni
- ✓ dans les champs des exploitants?
- dans des centres permanents

Name of method used for advisory service: Drip irrigation technology; Key elements: Water cycle: elaborated and explained to stakeholders during an initial stakeholder workshop as well as during field visits, Water-saving technologies: explained to stakeholders during stakeholder workshops. They were based on conceptual approaches and data gathered during field monitoring

Advisory service is quite adequate to ensure the continuation of land conservation activities; The government cannot provide special services in order to ensure its continuation; however, farmer-to-farmer dissemination is working.

Renforcement des institutions

Institutions ont été renforcées ou mises en place
- non
- oui, un peu
- ✓ oui, modérément
- oui, beaucoup

au niveau suivant
- ✓ local
- régional
- national

Décrivez l'institution, ses rôles et responsabilités, ses membres, etc.

Type de soutien
- financier
- ✓ renforcement des capacités/ formation
- équipement

Plus de détails

The local administration organized some demonstration and training activities for local users.

Suivi et évaluation

Bio-physical aspects were ad hoc monitored by government through measurements; indicators: through farm visits and sampling of soils for chemical parameters (for example to control for ecological farming practices) Technical aspects were ad hoc monitored by land users through observations; indicators: Comparison of water consumption using drip irrigation and furrow irrigation. The very high water efficiency as well as the minimal rate of water used for crop growing by drip irrigation was clearly demonstrated. Economic / production aspects were monitored through measurements; indicators: by comparing production between years There were no changes in the Approach as a result of monitoring and evaluation There were several changes in the Technology as a result of monitoring and evaluation: Some changes were made as a result of bio-physical monitoring of plant development according to water quantities, fertilizer application, etc.

Recherche

La recherche a traité les sujets suivants

- ☐ sociologie
- ☐ économie/ marketing
- ☐ écologie
- ☑ technologie

The implementation of drip irrigation technology under local conditions was performed by a team from the Moscow State University of Environmental Engineering under the framework of the EU-DESIRE project.

Research was carried out both on station and on-farm

FINANCEMENT ET SOUTIEN MATÉRIEL EXTERNE

Budget annuel en dollars US de la composante GDT

- ☐ < 2 000
- ☑ 2 000-10 000
- ☐ 10 000-100 000
- ☐ 100 000-1 000 000
- ☐ > 1 000 000

Precise annual budget: sans objet

Approach costs were met by the following donors: international non-government (EU research project DESIRE): 100.0%

Les services ou mesures incitatives suivantes ont été fournis aux exploitants des terres

- ☑ Soutiens financiers/ matériels fournis aux exploitants des terres
- ☑ Subventions pour des intrants spécifiques
- ☐ Crédits
- ☐ Autres incitations ou instruments

Soutiens financiers/ matériels fournis aux exploitants des terres

Agricultural activities are subsidised by government

	en partie financé	entièrement financé
équipement: machines	☐	☑
équipement: machines: outils	☐	☑

La main d'oeuvre fournie par les exploitants des terres était

- ☐ volontaire
- ☐ vivres-contre-travail
- ☐ payée en espèces
- ☑ récompensée avec un autre soutien matériel

ANALYSES D'IMPACT ET CONCLUSIONS

Impacts de l'Approche

	Non	Oui, un peu	Oui, modérément	Oui, beaucoup
Est-ce que l'Approche a aidé les exploitants des terres à mettre en œuvre et entretenir les Technologies de GDT? decreased water use	☐	☐	☐	☑
Est-ce que l'Approche a autonomisé les groupes socialement et économiquement défavorisés? It enables people with low income to avoid having to buy vegetables in the market by growing them for their own use and for sale.	☐	☐	☑	☐
Did other land users / projects adopt the Approach? Land users share their knowledge and experience with each other. Where this occurs, drip irrigation disseminates amongst the stakeholders.	☐	☐	☑	☐

Principale motivation des exploitants des terres pour mettre en oeuvre la GDT

- ☑ augmenter la production
- ☐ augmenter la rentabilité/ bénéfice, rapport coûts-bénéfices
- ☐ réduire la dégradation des terres
- ☐ réduire les risques de catastrophe
- ☐ réduire la charge de travail
- ☐ paiements/ subventions
- ☐ règles et règlements (amendes)/ application
- ☐ prestige, pression sociale/ cohésion sociale
- ☐ affiliation à un mouvement/ projet/ groupe/ réseaux
- ☐ conscience environnementale
- ☐ coutumes et croyances, morale
- ☐ améliorer les connaissances et compétences en GDT

Durabilité des activités de l'Approche

Les exploitants des terres peuvent-ils poursuivre ce qui a été mis en oeuvre par le biais de l'Approche (sans soutien extérieur) ?

- ☐ non
- ☑ oui
- ☐ incertain

- [ ] améliorer l'esthétique
- [ ] atténuer les conflits
- [x] well-being and livelihoods improvement

CONCLUSIONS ET ENSEIGNEMENTS TIRÉS

Points forts: point de vue de l'exploitant des terres

- increasing the well-being of people (How to sustain/ enhance this strength: Table of land users become more rich by vegetable, some vegetables can be sold on the market)
- Labour time saving (How to sustain/ enhance this strength: Giving people more time for others activities)
- water saving (How to sustain/ enhance this strength: Implementation of water saving technologies)

Points forts: point de vue du compilateur ou d'une autre personne-ressource clé

- Increasing the well-being of people: food availability for land users becomes enriched in terms of vegetables and some vegetables can be sold on the market (How to sustain/ enhance this strength: Dissemination of these opportunities to other people)
- Reduction of labour input (How to sustain/ enhance this strength: Giving people more time for other activities)
- Combating land degradation (How to sustain/ enhance this strength: sharing this knowledge with other users)
- Sharing water-saving knowledge with other users (How to sustain/ enhance this strength: Implementation of water-saving technologies and dissemination of these skills to neighbours.)
- Concerted thinking by stakeholders on common problems of water scarcity in villages remote from water sources (How to sustain/ enhance this strength: Provide best-practice examples of water usage and initiate implementation of water-saving technologies)

Faiblesses/ inconvénients/ risques: point de vue de l'exploitant des terrescomment surmonter

Faiblesses/ inconvénients/ risques: point de vue du compilateur ou d'une autre personne-ressource clécomment surmonter

- Relatively high starting implementation costs

RÉFÉRENCES

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Personnes-ressources
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Description complète dans la base de données WOCAT
https://qcat.wocat.net/fr/wocat/approaches/view/approaches_2426/

Données de GDT correspondantes
Technologies: Drip irrigation https://qcat.wocat.net/fr/wocat/technologies/view/technologies_1371/
Technologies: Drip irrigation https://qcat.wocat.net/fr/wocat/technologies/view/technologies_1371/

La documentation a été facilitée par

Institution
- Moscow State University of Environmental Engineeri (Moscow State University of Environmental Engineeri) - Russie

Projet
- DESIRE (EU-DES!RE)

Références clés

- Zeiliguer, A., G. Sokolova, V. Semeonv, O. Ermolaeva. Results of field experimentations at 2008 to grow tomatoes under drip irrigation at Pallasovsky District of Volgograd Region. Proceeding of conference at MSUEE. 2008, p. 45-56: