



Picture of terrace in the Loess Plateau

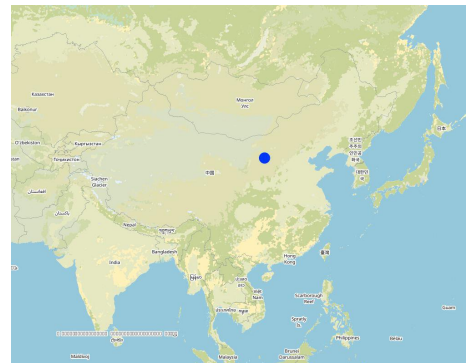
Terrace (Chine)

DESCRIPTION

Terraces are built on a slope land which as a raised bank made up of earth or stone with vertical or sloping sides and an approximately flat top to control soil erosion and preserve and enhance soil fertility.

Aims / objectives: A terrace has a raised bank made up of earth or stone with vertical or sloping sides and a flat top. It can reduce slope angle and length, wrap runoff, increase infiltration and reduce soil loss. Crops can grow well because water increases in the soil. The ground cover is improved. Terraces can be constructed by manual labor or machine. Firstly, surveying the slope hills and determining width of terraces according to the slope angle and soil texture. Secondly, leveling up the slope and constructing the banks. Thirdly, maintaining. The terraces are implemented together by state, local A terrace has a raised bank of earth or stone with vertical or sloping sides and a approximately flat top. It can reduce slope angle and length, retain runoff, increase infiltration and reduce the soil loss. Crops can grow well because water increases in soils. Meanwhile, ground cover is improved. Terrace can be constructed by manual labor or machine. Firstly, determining the width of the field according to the slope angle and soil texture. Secondly, putting the topsoil aside. Thirdly, leveling up the slope and constructing banks. At last, putting the topsoil to the top of the flat surface.

LIEU



Lieu: Shaanxi, Shanxi, Gansu, Henan, Inner Mongolia, Chine

Géo-référence des sites sélectionnés

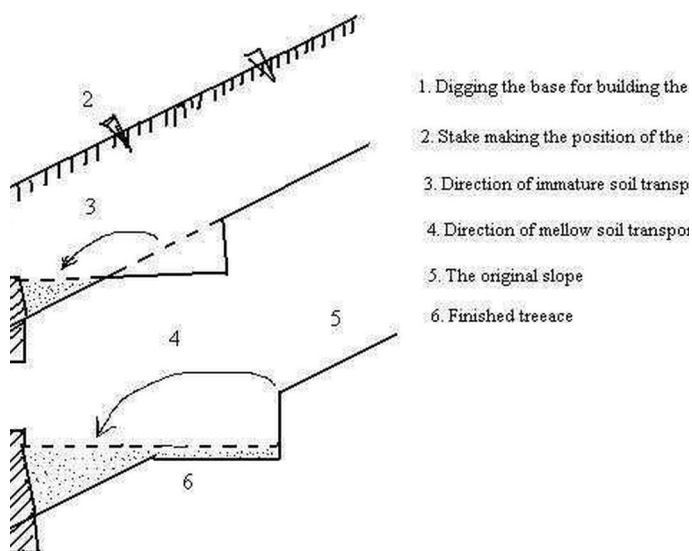
- 109.125, 39.122

Date de démarrage: 1950

Année de fin de l'Approche: sans objet

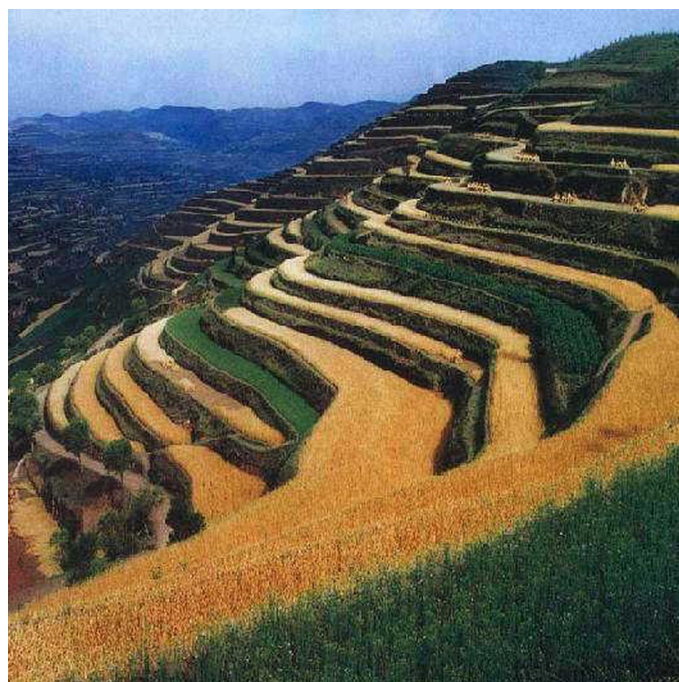
Type d'Approche

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



Technical Drawing of a Terrace Building

Technical drawings of a terrace in the Loess Plateau



Picture of terrace in the Loess Plateau

OBJECTIFS DE L'APPROCHE ET ENVIRONNEMENT FAVORABLE

Principaux objectifs de l'Approche

The Approach focused mainly on SLM with other activities (Increasing crop yield.)

The main objectives of the approach were conserving soil and water on slope land and enhancing soil fertility.

The SLM Approach addressed the following problems: Soil loss and land degradation, lack of fund and technology.

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

- **Disponibilité/ accès aux ressources et services financiers:** No enough money Treatment through the SLM Approach: The national government partly fund, individual partly invests, local government partly invests.
- **Cadre juridique (régime foncier, droits d'utilisation des terres et de l'eau):** The existing land ownership, land use rights / water rights hindered a little the approach implementation The ownership of the land resources belongs to state and communities, land users can only lease the land for a period of time, they worry about their land would be transferred to others.
- **Connaissances sur la GDT, accès aux supports techniques:** Poor knowledge for how to reduce the soil loss Treatment through the SLM Approach: Enhancing SWC specialists guidance
- **Autre:** Peasant worry about that they can not own the use right. Treatment through the SLM Approach: The national government advocates those who invest labors who get the benefits.

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	Working land users were mainly men (Men are the main force for field work.) Existing groups of land users Experienced peasant may be involved in introducing the local situations.	Men know much more technical knowledge and skills than women. If a terrace is constructed by machine, men and women are not different. If a terrace is constructed by manual labor, men can do more work.
Spécialistes de la GDT/ conseillers agricoles		
gouvernement national (planificateurs, décideurs)		

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

	aucun	passive	soutien extérieur	interactive	auto-mobilisation	
initiation/ motivation	☒	☐	☐	☐	☐	rapid/participatory rural appraisal; The approach is a traditional way to harvest water and wrap soils, SWC applied land users easy to understand and accept it if some subsidy being obtained.
planification	☐	☒	☐	☐	☐	interviews/questionnaires; Being involved in the planning.
mise en œuvre	☐	☐	☐	☒	☐	responsibility for minor steps; Being involved in the planning.
suivi/ évaluation	☐	☒	☐	☐	☐	reporting; No participating.
Research	☒	☐	☐	☐	☐	

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
- ☒ extensionists/trainers, politicians/decision makers

Formats de la formation

- ☐ sur le tas
- ☒ entre agriculteurs (d'exploitants à exploitants)
- ☒ zones de démonstration
- ☐ réunions publiques
- ☒ cours

Sujets abordés

Teaching them how to design and build terraces on a slope land etc.

Service de conseils

Le service de conseils était fourni

- ☒ dans les champs des exploitants?
- ☐ dans des centres permanents

Local government and SWC division.; Key elements: Demonstration, Visiting, Visiting; 1) Advisory service was carried out through: government's existing extension system 2) Advisory service was carried out through: government's existing extension system; Extension staff: mainly government employees 3) Target groups for extension: land users; Activities: Explain and demonstrate

Advisory service is quite adequate to ensure the continuation of land conservation activities; At each government level, there is a SWC division which is in charge of SWC activities including extension.

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

Suivi et évaluation

bio-physical aspects were regular monitored by 0 through measurements; indicators: None technical aspects were regular monitored by 0 through measurements; indicators: None socio-cultural aspects were ad hoc monitored by 0 through observations; indicators: None economic / production aspects were regular monitored by 0 through measurements; indicators: None area treated aspects were regular monitored by 0 through measurements; indicators: None no. of land users involved aspects were ad hoc monitored by 0 through measurements; indicators: None management of Approach aspects were ad hoc monitored by 0 through observations; indicators: None There were few changes in the Approach as a result of monitoring and evaluation: None

Recherche

La recherche a traité les sujets suivants

- ☐ sociologie
☒ économie/ marketing
☒ écologie
☒ technologie
- 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
- Approach costs were met by the following donors: government (national - fund): 100.0%

Precise annual budget: sans objet

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

	en partie financé entièrement financé
équipement: machines	☒
équipement: machines: outils hand tools	☒
intrants agricoles: semences	☒
intrants agricoles: semences: fertilisants	☒
seedlings and biocides	☒
community infrastructure	☒

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

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

Crédits

Conditions : Interest rate charged: 0.5% Interest was lower than market rate.

Fournisseurs du crédit : sans objet

Destinataires du crédit : sans objet

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? Subsoiling and applying more manure and compost.	☐ ☐ ☒
Est-ce que l'Approche a amélioré les questions foncières et des droits d'utilisation qui entravent la mise en œuvre des Technologies? Persuading them to accept The problem is likely to be overcome in the near future. The relationship between land ownership and use rights can be properly dealt with by government and managers.	☐ ☒ ☐
Did other land users / projects adopt the Approach? According to the local situation, pits and check dam etc. also adopted in the approach.	☐ ☒ ☐

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

Durabilité des activités de l'Approche

✓ sans objet

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

CONCLUSIONS ET ENSEIGNEMENTS TIRÉS

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

- increase in production
- Easier to till

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

- Reduction of the slope angle (How to sustain/ enhance this strength: Raising terrace bank.)
- reduction of the slope length (How to sustain/ enhance this strength: Protecting terrace banks by planting trees or others.)
- Harvest of the runoff and increase in infiltration (How to sustain/ enhance this strength: Protecting the banks)
- increase in soil fertility and organic matter (How to sustain/ enhance this strength: Applying manure and fertilizer)
- improvement of ground cover (How to sustain/ enhance this strength: no till with mulching.)

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

- Cost much.

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

- Decrease in production in the first 1-2 year(s) Fertilizing plenty of manure.
- The ridge of the terrace is possible to be destroyed by storms and rats Repairing and maintaining in time.

RÉFÉRENCES

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Description complète dans la base de données WOCAT

https://qcat.wocat.net/fr/wocat/approaches/view/approaches_2394/

Données de GDT correspondantes

sans objet

La documentation a été facilitée par

Institution

- Department of Resources and Environmental Science, Beijing Normal University (Department of Resources and Environmental Science, Beijing Normal University) - Chine

Projet

- sans objet

Références clés

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