A meeting between project technicians and users to discuss problems and issues related to drinking water and to identify viable solutions. (PARDYP)

Community efforts for improving drinking water quality (Népal)

Piune paani ko gunastar sudhar ka lagi samudayik prayas

DESCRIPTION

Working with communities to demonstrate and disseminate methods for improving drinking water quality using structural and vegetative measures

Aims / objectives: The People and Resource Dynamics in Mountain Watersheds of the Hindu Kush- Himalayas Project (PARDYP) implemented this approach with 30 drinking water user households at Barbot in the Jhikhu Khola watershed, Kavre Palanchok. The aim was to improve water quality and availability from an open spring source through participatory planning and implementation. The approach first identified local concerns and observed the sanitary situation of the catchment area. Meetings were held jointly with men and women users from different caste groups (Brahmin, Chhetri, Newar and Kami) to discuss the problems and issues and to identify viable solutions. The advantages and disadvantages of the various options were discussed, after which users selected the following three measures to improve the drinking water supply: 1) building a brick-cement walled structure around the main local spring, 2) establishing check dams across nearby rills and gullies, and 3) planting grass around the spring box and tree saplings within the catchment area. The aim was to prevent direct flow of surface water into the spring and reduce contamination and turbidity of the source. Understanding and support was gained by demonstrating the technology and running an awareness campaign.

Role of stakeholders: The project helped form a users committee made up of 11 women and 1 man and encouraged them to plant grass and tree seedlings across the entire catchment. The project regularly measured the quality of the water and shared the results with the users. Rules and regulations were developed to ensure equitable access to the spring and its sustainable use and management. A notice board with doâ€™s and donâ€™ts was placed near the spring. The users held monthly meetings and established a revolving fund for maintaining the structures. Spring users followed the rules and regulations by washing, cleaning, and bathing at separate sources. Livestock grazing was stopped in the nearby area and the area was regularly cleaned. Furthermore, users were encouraged to treat water for drinking using simple methods like SODIS and the low cost Safa filter to avoid microbiological contamination. They were made more aware of water quality, sanitation, and health issues.

LIEU

Lieu: Kavrepalanchowk district/ Jhikhu Kholawatershed, Népal

Géo-référence des sites sélectionnés

- 85.5, 27.5

Date de démarrage: sans objet

Année de fin de l'Approche: 2005

Type d'Approche

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

A meeting between project technicians and users to discuss problems and issues related to drinking water and to identify viable solutions. (PARDYP)

Sharing simple water quality treatment methods like SODIS and the low cost Safa filter with users. (B.S. Dongol)

OBJECTIFS DE L'APPROCHE ET ENVIRONNEMENT FAVORABLE

Principaux objectifs de l'Approche

The Approach focused on SLM only

- To explore and demonstrate appropriate water quality improving technologies and methods in a participatory way. - To increase awareness on water quality, water treatment, and health and hygiene. - To share knowledge gained on the water improvement options with farmers and other stakeholders

The SLM Approach addressed the following problems: Weak institutional collaboration to develop technological options for improving drinking water quality and availability and to raise awareness on health and hygiene and waterborne diseases.

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

- **Cadre juridique (régime foncier, droits d'utilisation des terres et de l'eau)**: The existing land ownership, land use rights / water rights greatly helped the approach implementation: mostly state owned land and some private land - which helped implementating the technology as there was no conflict.

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

- **Disponibilité/ accès aux ressources et services financiers**: For the maintenance of the implemented technology Treatment through the SLM Approach: Revolving fund collected by users
- **Cadre institutionnel**: Weak institutional collaboration Treatment through the SLM Approach: User group formed linking local community organisations
- **Connaissances sur la GDT, accès aux supports techniques**: Different water treatment methods Treatment through the SLM Approach: Awareness of structural and vegetative measures; direct water treatment methods including Safa filter, SODIS, chlorination

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	Land users worked equally divided between men and women	Improvement of drinking water quality and quantity was the major concern of all spring users.
ONG		
gouvernement national (planificateurs, décideurs)		
organisation internationale	PARDYP/ICIMOD	

Organisme chef de file

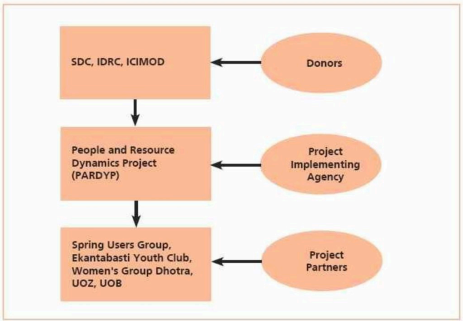
Concept designed by national specialist and implemented jointly with users

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

	aucun	passive	soutien extérieur	interactive	auto-mobilisation	
initiation/ motivation				✓		public meetings; meetings organised to identify problems and possible options to overcome them.
planification				✓		public meetings; organised regularly to identify implementing steps, and role and responsibility of different stakeholders in overcoming problems
mise en œuvre				✓		responsibility for major steps; the user group responsible for implementation and the project for technical support
suivi/ évaluation				✓		The quality of the water was measured in each season to monitor the impact of the technology. Detailed progress reports, results, and lessons learned were shared with district level institutions and authorities, water quality reports were shared with spring users at public meetings
Research		✓				Water quality and availability recorded before and after technology implemented. Studies on access to water and confl icts among users

Diagramme/ organigramme

PARDP project donors and implementing partners-- SDC: Swiss Agency for Development and Cooperation IDRC: International Development Research Centre ICIMOD: International Centre for Integrated Mo



Auteur : Madhav Dhakal

Prises de décision pour la sélection de la Technologie de GDT

Les décisions ont été prises par

- [ ] les exploitants des terres seuls (auto-initiative)
- [x] 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

- [x] Renforcement des capacités/ formation
- [x] Service de conseils
- [x] Renforcement des institutions (développement organisationnel)
- [x] Suivi et évaluation
- [x] Recherche

Renforcement des capacités/ formation

La formation a été dispensée aux parties prenantes suivantes

- [x] exploitants des terres
- [ ] personnels/ conseillers de terrain

Formats de la formation

- [ ] sur le tas
- [ ] entre agriculteurs (d'exploitants à exploitants)
- [ ] zones de démonstration
- [x] réunions publiques
- [ ] cours

Sujets abordés

Concept of conservation measures, and methods of treating contaminated water using SODIS and safa filter.

Service de conseils

Le service de conseils était fourni

- [x] dans les champs des exploitants?
- [ ] dans des centres permanents

Name of method used for advisory service: Sharing information on water quality status, and raising awareness among users.; Key elements: catchment conservation, health hygiene, water treatment methods; 1) Advisory service was carried out through: projects own extension structure and agents; Extension staff: specifically hired project employees 2) Target groups for extension: land users; Activities: awareness on health hygiene; catchment conservation activities and water treatment methods were shared during meetings.

Advisory service is quite adequate to ensure the continuation of land conservation activities

Renforcement des institutions

Institutions ont été renforcées ou mises en place

- [ ] non
- [x] oui, un peu
- [ ] oui, modérément
- [ ] oui, beaucoup

au niveau suivant

- [x] local
- [ ] régional
- [ ] national

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

Type de soutien

- [ ] financier
- [x] renforcement des capacités/ formation
- [ ] équipement

Plus de détails

Training on water quality treatment provided to local club

Suivi et évaluation

bio-physical aspects were ad hoc monitored through observations; indicators: land use and degradation, sanitary inspection, history of spring, available resources to trap water technical aspects were regular monitored through measurements; indicators: seasonal water quality and discharge socio-cultural aspects were ad hoc monitored through observations; indicators: number of spring users, household water requirements, users' issues no. of land users involved aspects were regular monitored through measurements; indicators: participation in conservation activities There were few changes in the Approach as a result of monitoring and evaluation: The project consulted with the local women's cooperative to solve a conflict over water quantity and access to spring source.

Recherche

La recherche a traité les sujets suivants

- [x] sociologie
- [ ] économie/ marketing
- [ ] écologie
- [x] technologie

Access to drinking water, conflicts at water fetching times, water quality and quantity measurement, and effectiveness of water treatment methods.

Research was carried out on station

FINANCEMENT ET SOUTIEN MATÉRIEL EXTERNE

Budget annuel en dollars US de la composante GDT

- [x] < 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 (SDC, IDRC, ICIMOD): 90.0%; local community / land user(s) (users group): 10.0%

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

- [ ] Soutiens financiers/ matériels fournis aux exploitants des terres
- [x] Subventions pour des intrants spécifiques
- [x] Crédits
- [ ] Autres incitations ou instruments

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

- [x] volontaire
- [ ] vivres-contre-travail
- [ ] payée en espèces
- [ ] récompensée avec un autre soutien matériel

Crédits

Conditions : sans objet
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? To build awareness on SLM and methods of improving drinking water quality. It also helped users to work in a group.	☐	☐	☐	☑
Did other land users / projects adopt the Approach? Similar approaches are being followed in other communities across Nepal.	☐	☐	☑	☐

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
- [x] réduire la charge de travail
- [ ] paiements/ subventions
- [ ] règles et règlements (amendes)/ application
- [ ] prestige, pression sociale/ cohésion sociale
- [ ] affiliation à un mouvement/ projet/ groupe/ réseaux
- [x] conscience environnementale
- [ ] coutumes et croyances, morale
- [ ] améliorer les connaissances et compétences en GDT
- [ ] améliorer l'esthétique
- [ ] atténuer les conflits

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
- [x] oui
- [ ] incertain

Users are maintaining the implemented technology and also protecting the other nearby spring sources.

CONCLUSIONS ET ENSEIGNEMENTS TIRÉS

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

- Water users committee formed, revolving fund collected, and rules and regulations developed for the sustainable management of the drinking water system (How to sustain/ enhance this strength: Maintain links with local community mobilisation groups for continuous guidance and support for the user group and for the proper use of the revolving fund.)

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

- Users have become more aware of sanitation issues than before (How to sustain/ enhance this strength: Awareness campaigns should be organized regularly covering more villages.)
- Users have become more aware of 1) the quality of their drinking water, 2) its impact on their health, 3) water quality improvement options, and 4) the importance of soil and water conservation (How to sustain/ enhance this strength: Water quality testing campaigns should be continued and technical know how about different water quality treatment methods for improved health shared at regular meetings)

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

- Water aviallability is still insufficient during dry period (March - May) Other available nearrer sources should also be used, catchment protection activities should be continued.

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

- Conflicts are visible during the dry season due to insufficient quantity of water. Good coordination among the group members should minimise conflicts- the strong and balanced role of users committee is vital for the equitable sharing of benefits.

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_2352/

Données de GDT correspondantes

Technologies: Drinking water quality improvement through conservation measures
https://qcat.wocat.net/fr/wocat/technologies/view/technologies_1496/
Technologies: Drinking water quality improvement through conservation measures
https://qcat.wocat.net/fr/wocat/technologies/view/technologies_1496/

La documentation a été facilitée par

Institution

- CDE Centre for Development and Environment (CDE Centre for Development and Environment) - Suisse
- ICIMOD International Centre for Integrated Mountain Development (ICIMOD) - Népal

Projet

- sans objet

Références clés

- ICIMOD (2007) Good Practices in Watershed Management, Lessons Learned in the Mid Hills of Nepal. Kathmandu: ICIMOD: ICIMOD