A household member from Adale Bise kebele of Mattu district who is simultaneously producing organic fertilizers using vermicomposting and biogas/bioslurry production technology. (Gerba Leta)

Integrated Soil Fertility Management (ISFM) (ອິທິໂອເປຍ)

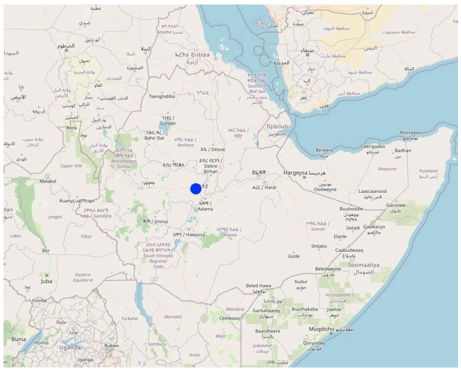
Qindoomina Misooma Gabbina Biyyee (Afaan Oromoo) /Yeteqenaje ye Afer Limat (Amharic)

ຄໍາອະທິບາຍ

The Integrated Soil Fertility Management (ISFM) approach has been adopted under the Integrated Soil Fertility Management Project (ISFM+). It was introduced as a quick-win solution to increase both crop and biomass production through the incremental promotion of varied but complementary technology packages.

The Integrated Soil Fertility Management (ISFM) approach is intended to increase both crop and biomass production through the incremental promotion of varied but complementary technology packages. These include the production and use of organic fertilizers, treatment of soil acidity, and improved retention of crop residue. All help in reducing the depletion (mining) of soil nutrients. One characteristic feature is the engagement of research and development partners at all levels such as in joint problem identification, learning, participatory planning, piloting technology, and exchange visits. The approach involves model farmers and also focuses on farmers with limited means to purchase chemical fertilizers. It enhances the production of organic fertilizers to increase both soil fertility and crop productivity.
Furthermore, ISFM enables farmers to generate off-farm and on-farm income through the production and sale of organic fertilizers, vermiworms, and green manure seeds, etc. The partners assist in identifying soil-related issues, as well as enhancing the adoption and institutionalization of the approach. ISFM aims to improve stakeholders' understanding of land degradation issues and the necessity of SLM by creating access to relevant seasonal training, exposure visits, collective learning, and action.
Project focal persons representing partners at different levels and development agents (DAs) are used to facilitate the process and serve as potential links with stakeholders. At the local level, the Farmers Research and Extension Group (FREG) sub-approach supports the implementation of the technologies on an incremental basis (see WOCAT database). Also, the Soil Fertility Improvement Cluster approach (see WOCAT database) assists in scaling out of the ISFM approach by adopting and superimposing technologies such as vermicompost with improved compost production. Farmer ambassadors are identified from the FREG model based on their performance. They assist in mainstreaming and dissemination of the approach and technologies to indirect beneficiaries. The implementation process of the ISFM involves district and kebele selection, identification of watersheds and voluntary farmers, provision of capacity-building training, conducting participatory planning, supplying inputs, and technical support. To realize the aims, the ISFM+ allocates financial support to the partners at different levels via Local Subsidy Contract.
Project staff including federal and regional advisors are involved. They provide training, technical backstopping, reviewing progress, M&E, and feedback services. District focal person closely follows up on the implementation - with the support of DAs in steering farmers' group meetings and collective learning. In addition, DAs assist in piloting on farm short and long-term demonstrations, organizing field days and exchange visits, collecting data, and overseeing activities.

ສະຖານທີ່



ສະຖານທີ່: Addis Ababa, ອິທິໂອເປຍ

ການຄັດເລືອກພື້ນທີ່ ທີ່ອີງໃສ່ຂໍ້ມູນທາງພູມີສາດ
- 38.79984, 9.02149

ວັນທີເລີ່ມຕົ້ນ: 2015

ປີຂອງການສິ້ນສຸດ: 2025

ປະເພດຂອງແນວທາງ
- [ ] ພື້ນເມືອງ / ທ້ອງຖິ່ນ
- [ ] ການລິເລີ່ມ ພາຍໃນ ປະເທດທີ່ຜ່ານມາ / ນະວັດຕະກໍາ
- [x] ພາຍໃນ ໂຄງການ / ແຜນງານ

Land users like the technologies introduced and implemented via the ISFM approach. The promotion of collective learning and action leads to increased soil fertility, and improved crop production and smallholders' livelihoods. The creation of new sources of income for land users is among the benefits they appreciate the most. However, farmers are less enthusiastic by the way that group meetings clash with their other activities and this leads to some members dropping out. Also, the cost of technologies promoted by the ISFM such as combined uses of chemical fertilizers, bio-fertilizers (for legumes), organic fertilizers, and quality seeds are envisaged as a possible constraint among others.

ISFM+ focal persons and other member of the development partners progress assessment and planning meeting. (Gerba Leta)

ເປົ້າໝາຍຂອງແນວທາງແລະ ການປົກປັກຮັກສາສິ່ງແວດລ້ອມ

ເປົ້າໝາຍ / ຈຸດປະສົງຫຼັກໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

The main objective of the approach is to promote the integration of technologies, collective learning, and action for treating degraded soil, increasing soil fertility and crop productivity while ensuring sustainable uses of land.

ເງື່ອນໄຂທີ່ສະໜັບສະໜູນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ

- **ມີຄວາມສາມາດ / ເຂົ້າເຖິງຊັບພະຍາກອນດ້ານການເງິນ ແລະ ການບໍລິການ**: Access to financial resources improved farmers' access to materials and inputs on their own. This promotes the adoption and scaling up of the technology using ISFM approach.
- **ການກໍ່ຕັ້ງສະຖາບັນ**: Institutional setting such as farmers' group formation promotes collective learning and action.
- **ການຮ່ວມມື / ການປະສານງານຂອງຜູ້ກ່ຽວຂ້ອງ**: Is central to promoting effective implementation of the approach that entails various research and development actors.
- **ນະໂຍບາຍ**: Such as adopting lime production, distribution and use policy enables successful implementation of the approach.
- **ວຽກ, ມີກໍາລັງຄົນ**: Family labor enables production of organic fertilizers and effective implementation of lime and other technologies which are labor intensive.

ເງື່ອນໄຂທີ່ເຊື່ອງຊ້ອນໃຫ້ການຈັດຕັ້ງປະຕິບັດເຕັກໂນໂລຢີ ບົນພື້ນຖານແນວທາງ

ການມີສ່ວນຮ່ວມ ແລະ ບົດບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງທີ່ມີສ່ວນຮ່ວມ

ພາລະບົດບາດຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ ທີ່ມີສ່ວນຮ່ວມໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ

ແມ່ນໃຜ / ພາກສ່ວນໃດ ທີ່ເປັນເຈົ້າການ ໃນການຈັດຕັ້ງປະຕິບັດ ວິທີການ?	ລະບຸ ພາກສ່ວນທີ່ກ່ຽວຂ້ອງ	ພັນລະນາ ບົດບາດ ໜ້າທີ່ ຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ
ຜູ້ນໍາ ຊຸມຊົນທ້ອງຖິ່ນ / ຊຸມຊົນທ້ອງຖິ່ນ	Model farmers, and other smallholders (followers).	Lead group meeting, facilitate collective learning and action based on the pilot practices/activities.
ຜູ້ຊ່ຽວຊານ ການນຸລັກຄອງ ທີ່ດິນແບບຍືນຍົງ / ທີ່ປຶກສາດ້ານກະສິກໍາ	Focal persons and experts from soil fertility improvement /extension unit of the district.	Facilitate implementation of the technology via the approach, and serve as a link between stakeholders.
ນັກຄົ້ນຄວ້າ	Soil researchers from Regional Research Institutes, and respective technologies.	Soil testing, production of bio fertilizer, and supporting the different technologies with research findings.
ອົງການຈັດຕັ້ງທີ່ບໍ່ແມ່ນລັດຖະບານ	SNV Ethiopia, Nutrition Sensitive Agriculture, and other GIZ projects.	Integration of efforts such as on biogas/bioslurry production and other respective project implementation activities.
ພາກເອກະຊົນ	Agro dealers, and other services providers	Facilitate the distribution of lime and improved seeds, provide services on mechanization such as maintenance, etc.
ອໍານາດ ການປົກຄອງທ້ອງຖິ່ນ	District office of agriculture, and woreda administration.	Partnerships, acknowledge implementation of the project and provide administrative support when

		required.
ພະນັກງານຂັ້ນສູນກາງ (ຜູ້ວາງແຜນ, ຜູ້ສ້າງນະໂຍບາຍ)	Ministry of Agriculture and Research System.	Support in mainstreaming the technology and approach, policy formulation and research support testing soil and tools...
ອົງການຈັດຕັ້ງສາກົນ	CIAT, CIMMYT, ICRISAT...	Provide research and technical support in joint areas of intervention.

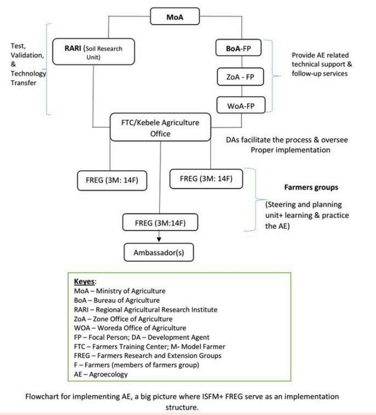
ອົງການທີ່ເປັນຕົວແທນໃນການຈັດຕັ້ງປະຕິບັດ
Integrated Soil Fertility Management Project (ISFM+).

ການລວບລວມເອົາຜູ້ນໍາໃຊ້ທີ່ດິນໃນທ້ອງຖິ່ນ/ຊຸມຊົນທ້ອງຖິ່ນ ໃນການຈັດຕັ້ງປະຕິບັດແນວທາງ ແຕ່ລະໄລຍະ

	ບ□□ມ	ການບ□□ບໍລິຫ	ການສ□ຍເຫຼືອຈາກພາຍ ນອກ	ການຮ□ມມື	ການຄ□ □ ສ□	
ການເລີ່ມຕົ້ນ / ແຮງຈູງ□ ຈ			■			District focal person and development agents. Facilitate the implementation right from awareness raising, farmers' group formation, training, supply inputs, and technically support the implementation.
ການວາງແຜນ				■		Regional advisor, focal persons, and the farmers. Each engaged in a participatory planning exercise.
ການປະຕິບັດ				■		Farmers, focal persons, and development agents. Farmers implement the technologies being guided by the approach. Whereas, the focal person and development agents oversee and provide technical support.
ຕິດຕາມກວດກາ / ການປະເມີນຜົນ				■		Focal person, development agents, and land users. They conduct participatory M&E to ensure collective learning.

ແຜ່ນວາດສະແດງ

ISFM approach that run from the federal to kebele where FREG is the pillar approach serving the land users as a platform for collective learning and action at local level.



ຜູ້ຂຽນ: Gerba Leta

ການຕັດສິນໃຈໃນການເລືອກເຕັກໂນໂລຢີ ການຄຸ້ມຄອງທີ່ດິນແບບຍືນຍົງ

ການຕັດສິນ□ ຈໂດຍ
- [ ] ຜູ້ນໍາ□ □ ຊ້ທີ່ດິນຜູ້ດຽວ (ການລິເລີ່ມດ້ວຍຕົນເອງ)
- [x] ຜູ້ນໍາ□ □ ຊ້ທີ່ດິນຫຼັກ, ການສະ□ ັບສະ□ ູນໂດຍຜູ້ຊ່ຽວຊານ ການນໍາ□ □ ຊ້ທີ່ດິນແບບຍືນຍົງ
- [ ] ພາກສ່ວນກ່ຽວຂ້ອງທັງ□ ົດ, ເປັນສ່ວນ□ ື່ງ ຂອງວິທີທາງແບບມີສ່ວນຮ່ວມ
- [ ] ຜູ້ຊ່ຽວຊານ ຫຼັກດ້ານການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ, ມີການຕິດຕາມປຶກສາຫາລືກັບຜູ້ນໍາ□ □ ຊ້ທີ່ດິນ
- [ ] ຊ່ຽ□ວຊານສະເພາະດ້ານການຄຸ້ມຄອງ ດິນແບບຍືນຍົງຜູ້ດຽວ
- [ ] ນັກການເມືອງ / ຜູ້ນໍາ

ການຕັດສິນ□ ຈິນພື້ນຖານ
- [x] ປະເມີນເອກະສານ ຄວາມຮູ້ກ່ຽວກັບ ການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ (ຫຼັກຖານທີ່□ ຊ້ຢັ□ ນການຕັດສິນ□ ຈ)
- [x] ຜົນທີ່□ ດ້ຮັບ ຈາກການຄົ້ນຄວ້າ
- [x] ປະສົບການສ່ວນບຸກຄົນ ແລະ ຄວາມຄິດເຫັນ (ທີ່ບໍ່□ ດ້ເປັນເອກະສານ)

ການສະ□ ັບສະ□ ູນເຕັກໂນໂລຢີ, ການສ້າງຄວາມອາດສາມາດ ແລະ ການຄຸ້ມຄອງຄວາມຮູ້

ກິດຈະກໍາ ດັ່ງລຸ່ມນີ້ ແມ່ນເປັນພາກໜຶ່ງຂອງແນວທາງ
- [x] ການສ້າງຄວາມສາມາດ / ການຝຶກອົບຮົມ
- [x] ການບໍລິການ□ ທີ່ປຶກສາ
- [x] ສະຖາບັນການສ້າງຄວາມເຂັ້ມແຂງ (ການພັດທະນາອົງການຈັດຕັ້ງ)
- [x] ຕິດຕາມກວດກາ ແລະ ປະເມີນຜົນ
- [x] ການຄົ້ນຄວ້າ

ການສ້າງຄວາມອາດສາມາດ / ຝຶກອົບຮົມ

ໄດ້ສະໜັບສະໜູນຝຶກອົບຮົມໃຫ້ແກ່ພາກສ່ວນກ່ຽວຂ້ອງດັ່ງລຸ່ມນີ້
- [x] ຜູ້ນໍາ□ ຊ້ທີ່ດິນ
- [x] ພະນັກງານພາກສະ□ າມ/ ທີ່ປຶກສາ

ຮູບແບບການຝຶກອົບຮົມ
- [x] ການເຮັດຕົວຈິງ
- [x] ຕົວຕໍ່ຕົວ
- [x] ເນື້ອທີ່ສາທິດທົດລອງ
- [x] ກອງປະຊຸມ
- [ ] ຫຼັກສູດ

ຫົວຂໍ້ທີ່ກວມເອົາ

Soil degradation, rehabilitation of the degraded soil using different technologies and agronomic practices notably lime, organic fertilizers, bio fertilizer, crop residue management, mixed cropping, green manuring, application of minimum tillage practices, etc.

ການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

ໄດ້ຮັບການບໍລິການທາງດ້ານການໃຫ້ຄໍາປຶກສາ

- ■ □ ນີ້ນທີ່ຂອງຜູ້ນໍາ□ ຊີ້ນ
- ■ ສູນຄົ້ນຄວ້າ

Advisory services are provided by the focal person and development agents at Farmers Training Center and on the farmers' field.

ຄວາມເຂັ້ມແຂງຂອງສະຖາບັນ

ສະຖາບັນ ໄດ້ຮັບການສ້າງຄວາມເຂັ້ມແຂງ

- □ ບໍ່□ມ
- □ ມີ, □ ຂ້ອຍ□ົ້ງ
- ■ ມີ, ພໍສົມຄວນ
- □ ມີ, ຫຼາຍ

ໃນລະດັບດັ່ງລຸ່ມນີ້

- ■ ທ້ອງຖິ່ນ
- □ ລະດັບພາກພື້ນ
- □ ແຫ່ງຊາດ

ອະທິບາຍສະຖາບັນ, ພາລະບົດບາດແລະຄວາມຮັບຜິດຊອບ, ສະມາຊິກ, ແລະອື່ນໆ.

Farmers Research and Extension Group (FREG) has been established at the local level and has been serving as an approach at the local level. It has been serving as a local platform that brings members of the farmers' group together in participatory planning and joint learning of the technologies piloted on the farmer's field and short and long-term demonstrations.

ຮູບແບບການສະໜັບສະໜູນ

- ■ ທາງດ້ານການເງິນ
- ■ ການສ້າງຄວາມອາດສາມາດ / ການຝຶກອົບຮົມ
- ■ ອຸປະກອນ

ລາຍລະອຽດເພີ່ມເຕີມ

The project provides financial support through the Local Subsidy Contract. Capacity building is central to the implementation of the project. Farm tools as an incentive for the best-performing farmers and on-field soil testing equipment are provided to support the partner organizations scaling out the implementation of ISFM.

ການຕິດຕາມ ແລະ ປະເມີນຜົນ

Monitoring and evaluation is the pillar of the project activities and the adopted approach. The project along with implementing partners pilot short-term and long-term demonstrations, monitor the progress, and evaluate the achievements. Therefore, M&E is a regular activity in which the federal and regional project advisors rely on to generate feedbacks to amend or improve the implementation of the project activities.

ການຄົ້ນຄວ້າ

ການວິ□ ຈ□ຮັບການຮັກສາຫົວຂໍ້□□ນີ້

- □ ສັງຄົມ
- □ ເສດຖະສາດ / ການຕະຫຼາດ
- □ ລະບົບນິເວດ
- ■ ເຕັກໂນໂລຢີ

The research targets the feasibility of the technologies introduced via the ISFM approach and the project itself. The role of integrating different technology packages in improving soil fertility and crop productivity is also among the focuses of the research.

ການສະ□ັບສະ□ູນທາງດ້ານການເງິນ ແລະ ອຸປະກອນຈາກພາຍນອກ

ງົບປະມານປະຈໍາປີ ໃນກິດຈະກໍາ ການຄຸ້ມຄອງທີ່ດິນແບບຍືນຍົງ ທີ່ເປັນສະກຸນເງິນໂດລາ

- □ < 2,000
- ■ 2,000-10,000
- □ 10,000-100,000
- □ 100,000-1,000,000
- □ > 1,000,000

Precise annual budget: n.a.

ISFM+ is the source of the budget. A local Subsidy Contract (LSC) has been provided to partner organizations to effectively implement and follow up the activities with an additional allocation of finance for inputs and services.

ການບໍລິການ ຫຼື ສິ່ງກະຕຸກຊຸກຍູ້ ດັ່ງລຸ່ມນີ້ ແມ່ນໄດ້ສະໜອງໂດຍຜູ້ນໍາໃຊ້ທີ່ດິນເອງ

- ■ ການສະ□ັບສະ□ູນທາງດ້ານການເງິນ / ອຸປະກອນ ສະ□ ຂອງ□ຫ້ຜູ້ນໍາທີ່ດິນ
- □ ຫຼຸດປັດ□ ຈຸ້ເຊີ
- □ ສິນເຊື່ອ
- ■ ສິ່ງຈູງ□ ຫຼື ເຄື່ອງມືອື່ນ□

ເງິນສະໜັບສະໜູນອຸປະກອນ / ສະໜອງໃຫ້ຜູ້ຊົມໃຊ້ທີ່ດິນ

The project introduces technologies, provides inputs (improved seeds, chemical fertilizers, lime), and seldom supplies farm tools for a few well-performing models as an incentive.

ສິ່ງກະຕຸກຊຸກຍູ້ອື່ນໆ

Farm tools for outstanding farmers as well as a solar panel for residents in a rural setting as an incentive for well-performing in adopting the approach and proper implementation of the project.

ການວິເຄາະຜົນກະທົບ ແລະ ສະຫຼຸບລວມ

ຜົນກະທົບຂອງການນໍາໃຊ້ແນວທາງ

	ບໍ່□	ມີ, □ ຂ້ອຍ□ົ້ງ	ມີ, ພໍສົມຄວນ	ມີ, ຫຼາຍ
ວິທີທາງ ຊ່ວຍຊຸກຍູ້ຜູ້ນໍາ□ ທີ່ດິນທ້ອງຖິ່ນ, □ ນການັບປຸງ ການມີສ່ວນຮ່ວມ ຂອງຜູ້ທີ່ກ່ຽວຂ້ອງ ບໍ□ Land users learned the benefit of integrating three or more technologies/practices to improve soil fertility, and crop productivity and ensure the SLM is being in place.			■	
ການນໍາ□ ຊ້ວິທີທາງ ດັ່ງກ່າວນີ້ສາມາດເປັນຫຼັກຖານ ທີ່ສະ□ັບສະ□ູນ ທີ່ການຕັດສິນ□ ຈ□ບໍ□ The approach certainly enables evidence-based decision-making by comparing the yield from the plots with treatment (technology packages) versus the control (without full packages).				■

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດຊ່ວຍຜູ້ນຳ□ ທີ່ດິນ □ ນການັດຕັ້ງປະຕິບັດ ແລະ ບ□ລຸງຮັກສາ ເຕັກໂນໂລຢີ ການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ□ □□
The combination of three or more technologies, all in one inspires the land users to adopt and sustainably implement the SLM technologies.

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດປັບປຸງ ການປະສານງານ ແລະ ຄຳ□ ສຸກຍ ການຈັດຕັ້ງປະຕິບັດ ທີ່ມີປະສິດທິພາບ ຂອງການຄຸ້ມຄອງ ທີ່ດິນແບບຍືດຍົງ□ □ ບ□□
Coordination at a local level is not up to the expectation.

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດລະດົມ ຫຼື ປັບປຸງ ການເຂົ້າເຖິງຊັບພະຍາກອນ ການເງິນ ສຳລັບການຈັດຕັ້ງປະຕິບັດ ການຄຸ້ມຄອງ ທີ່ດິນແບບຍືດຍົງ□ □□□

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດປັບປຸງຄວາມຮູ້ແລະ ຄວາມສາມາດຂອງຜູ້ນຳ□ ທີ່ດິນ □ ນການປະຕິບັດ ການຄຸ້ມຄອງ ທີ່ດິນແບບຍືດຍົງ□ □□□
It improves the knowledge and skills of land users to implement SLM by promoting collective learning and action that highly increases peer learning through observation and social learning.

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດປັບປຸງຄວາມຮູ້ແລະ ຄວາມສາມາດ ຂອງພາກສ່ວນທີ່ກ່ຽວຂ້ອງ□ □□□
It impacts or improves the knowledge and skills of indirect beneficiaries through farmer's ambassadors.

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດສ້າງຄວາມເຂັ້ມແຂງ □ ສະຖາບັນການຈັດຕັ້ງ, ການຮ່ວມມື ລະຫວ່າງພາກສ່ວນທີ່ກ່ຽວຂ້ອງບ□□
It strengthens the inter-farmers collaboration and coordination that is seldom constrained by the overlaps with local activities such as public meetings and other communal affairs mostly known as new arrivals.

ການນຳ□ ໃຊ້ວິທີທາງ ສາມາດຫຼຸດຜ່ອນ ຂໍ້ຂັດແຍ້ງ□ □□□

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດສ້າງຄວາມເຂັ້ມແຂງ ທາງສັງຄົມ ແລະ ເສດຖະກິດບ□□
Farmers who have no financial means to access and use chemical fertilizers and other inputs involved via the approach.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດປັບປຸງ ຄວາມສະເໝີພາບ ຂອງບົດບາດ ຍິງຊາຍ ແລະ ສ້າງຄວາມເຂັ້ມແຂງ□ ແມ່ຍິງ□ □□□
One-third of a member of the farmers' group are women farmers- a signal for improvement of participation by gender.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດຊຸກຍູ້ຜູ້ນຳ□ ທີ່ດິນທີ່ເປັນຊາວ□ ມ / ຄົນລຸ້ນ□ □□ ນການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ□ □□
There is an assumption that young people learn from the family and neighbors who engaged in the implementation of the approach. This certainly inspires the young generation to take up and implement SLM activities.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດປັບປຸງ ປະເດັນການຖືຄອງທີ່ດິນ / ສິດທິ□ ນການນຳ□ ໃຊ້ດິນ ທີ່ເຂົ້າຂັດຂວາງຊ່ອນ□ ນການັດຕັ້ງປະຕິບັດ ເຕັກໂນໂລຢີ ການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ□ □□

ການນຳ□ ໃຊ້ວິທີທາງ □ ປັບປຸງ ການຄຳປະກັນສະບຽງອາຫານ ຫຼື ປັບປຸງໂພຊະນາການ□ □□□
Through promoting technologies/practices that improve production and productivity. By promoting legumes crop production using biofertilizers and as part of intercropping practices that ensure the nutrition security of the family farmers.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດປັບປຸງ ການເຂົ້າເຖິງຕະຫຼາດ□ □□
It improves participants' access to the inputs market (selling organic fertilizers, green manure seeds, vermiworms, and surplus products).

ການນຳ□ ໃຊ້ວິທີທາງ □ ປັບປຸງ ການເຂົ້າເຖິງນຳ ແລະ ສາຂາພິບານ□ □□□

ການນຳ□ ໃຊ້ວິທີທາງ □ ປັບປຸງ ການນຳ□ ໃຊ້ຫຼືຜະລັງງານ ແບບຍືນຍົງຫຼາຍຂຶ້ນບ□□
Mainly through supporting biogas/bioslurry technology, and the introduction of woodlots to family farmers via agroecology projects that adopt a similar approach.

ການຈັດຕັ້ງປະຕິບັດ ວິທີທາງ ສາມາດສ້າງຄວາມອາດສາມາດ□ ຜູ້ນຳ□ ໃຊ້ດິນ □ ນການັບປັບຕົວ ຕໍ່ການປ່ຽນແປງດິນຟ້າອາກາດ / ຫຼຸດຜ່ອນຄວາມສ່ຽງ ທາງ□ ພິພັດ□ □□
This is partly through adopting minimum tillage practices, crop residue management, and the production and use of organic fertilizers that reduce carbon emissions and foster carbon sequestration.

ການນຳ□ ໃຊ້ວິທີທາງ □ ປັບປຸງ ການຈ້າງງານ, ໂອກາດ □ ນການສ້າງລາຍຮັບບ□□
It creates income opportunities by promoting surplus production, production, and sale of organic fertilizers, vermiworms, and green manure seeds.

ສິ່ງກະຕຸກຊຸກຍູ້ໃຫ້ຜູ້ນຳໃຊ້ທີ່ດິນ ໃນການປະຕິບັດການຄຸ້ມຄອງທີ່ດິນແບບຍືນຍົງ

- [x] ການຜະລິດເພີ່ມຂຶ້ນ
- [ ] ກຳ□ ລໄລຂຶ້ນ (ຄວາມສາມາດ), ການປັບປຸງຄຳ□ ສຸກຍ, ຜົນປະໂຫຍດ, ອັດຕາສ່ວນ
- [x] ຫຼຸດຜ່ອນດິນເຊື່ອມໂຊມ
- [ ] ຫຼຸດຜ່ອນຄວາມສ່ຽງຂອງ□ ພິພັດ
- [ ] ການຫຼຸດຜ່ອນພາລະວຽກ
- [ ] ການຊຳລະເງິນ / ເງິນອຸດ□ ູນ
- [ ] ກົດລະບຽບແລະລະບຽບການ (ລະອຽດ) / ການບັງຄັບ□ ຊ້
- [ ] ກຽດສັກສີ, ຄວາມກົດດັນທາງສັງຄົມ / ການຕິດຕໍ່ພົວພັນທາງສັງຄົມ
- [ ] ລວມເຂົ້າກັບກົງກັນກັບການເຄື່ອນ□ ຫວ / ໂຄງການ / ກຸ່ມ / ເຄືອຂ່າຍ
- [x] ຄວາມຮັບຮູ້ທາງສິ່ງແວດລ້ອມ
- [ ] ພາສີ ແລະ ຄວາມເຊື່ອຖື, ສິນທັບສິນທຳ
- [x] ການປັບປຸງ ຄວາມຮູ້ແລະ ຄວາມສາມາດ ຂອງການຄຸ້ມຄອງ ທີ່ດິນແບບຍືນຍົງ
- [ ] ການປັບປຸງຄວາມງົດງາມ
- [ ] ການຫຼຸດຜ່ອນຂໍ້ຂັດແຍ້ງ

ຄວາມຍືນຍົງຂອງການຈັດຕັ້ງປະຕິບັດກິດຈະກຳຂອງແນວທາງ

ຜູ້ນຳ□ ໃຊ້ດິນ ສາມາດຈັດຕັ້ງປະຕິບັດຕາມແນວທາງ□ ດ້ວຍບໍ່ໂດຍປາດສະຈາກການສະໜັບສະ□ ູນຈາກພາກສ່ວນພາຍນອກ)?

- [ ] ບ□□ມ
- [x] ແມ່ນ
- [ ] ບ□□ແນ່ນອນ

As the production of organic fertilizers adopted on an individual basis and tangible benefit acquired from the implementation of the integrated approach introduced via the approach as well as the increasingly growing supply of lime for acid soil amendments similar to other chemical fertilizers, the likelihood of sustaining the approach for implementing integrated technologies is inevitable. Besides, the public organizations for instance bureaus of Agriculture and line offices such as in west Oromia of Jimma and Buno-Bedele zones institutionalized the production and uses of organic fertilizers via huge investments in establishing vermiculture centers to reach out to the large majority of smallholders subjected to soil degradation issues.

ບົດສະຫຼຸບ ແລະ ບົດຮຽນທີ່□ ຮັບ

ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ

- It promotes collective learning and action among smallholders living in a homogenous landscape facing similar land/soil degradation issues.
- It enhances soil fertility and soil health by introducing integrated technologies and creating evidence-based learning.
- Gain widespread publicity that allows the public and land users to build trust in the approach and component technologies that positively impact the livelihood of smallholders and the land in general.

ຄວາມເຂັ້ມແຂງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ້ອນຂໍ້ມູນເອງ

- The approach has been adopted and institutionalized within the government's mainstream rural development and agricultural extension.
- The project and the implementation approach are in line with the government's short and long-term plan to ensure the food and nutrition security of the nations while conserving natural resource basis.
- Integration is basic to address the nexus of issues that combine knowledge and skills development, the introduction of important agricultural inputs, technologies, or practices, all in one.

ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ນຳໃຊ້ທີ່ດິນ ວິທີການແກ້ໄຂແນວໃດ

- Integrating technologies/practices and inputs via the approach has cost implications. Promote the land user's awareness of the cost-benefit of adopting the approach and introduction of subsidy to some inputs such as agriculture lime for acid soil amendments.
- The approach drives labor-demanding technologies and practices. Promote collective action through adopting labor share arrangements as well as efficiently use family labor for follow-up of the production of organic fertilizers by task sharing.
- The high investment cost for some technologies is promoted by the approach. Enable land users to make the right choices of diverse technologies catered through the project and the adopted approach.
- Delay in supply of agricultural inputs such as agricultural lime Encourage private sectors involvement or the agro dealers in the supply of the agricultural inputs.

ຈຸດອ່ອນ / ຂໍ້ເສຍ / ຄວາມສ່ຽງ: ທັດສະນະມຸມມອງ ຂອງຜູ້ປ້ອນຂໍ້ມູນ ເອງວິທີການແກ້ໄຂແນວໃດ

- The limited scope of the project implementation sites. To try to reach out to similar landscapes with similar land degradation issues including the marginal regions. Or else, institutionalize the approach at the national level so that the public sector takes up and popularizes it in areas with similar problems.
- The collaboration and collective action at local levels through the existing platform is staggered by new arrivals and other local administrative chores. Local government actors and partners need to be well aware and give due emphasis beyond considering the intervention implemented through ISFM as merely project activities that usually come and go.

ເອກກະສານອ້າງອີງ

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ການປັບຍາຍລາຍລະອຽດ ໃນຖານຂໍ້ມູນ ຂອງ WOCAT

https://qcat.wocat.net/lo/wocat/approaches/view/approaches_6732/

ຂໍ້ມູນການເຊື່ອມໂຍງຂໍ້ມູນການຄຸ້ມຄອງການນຳໃຊ້ດິນແບບຍືນຍົງ

Technologies: Bioslurry https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6646/
Technologies: Cover crops https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6628/
Technologies: Relay Intercropping https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6630/
Technologies: Green Manures https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6645/
Technologies: Treating acid soils with lime https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6641/
Technologies: Crop Residue Management https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6644/
Technologies: Vermicomposting https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6643/
Technologies: Livestock Urine Collection and Use https://qcat.wocat.net/lo/wocat/technologies/view/technologies_6623/

ເອກກະສານ ແມ່ນໄດ້ອ່ານວຍຄວາມສະດວກໂດຍ

ສະຖາບັນ
- Alliance Bioversity and International Center for Tropical Agriculture (Alliance Bioversity-CIAT) - ເຄັນຢາ

ໂຄງການ
- Soil protection and rehabilitation for food security (ProSo(i)l)

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- Integrated Soil Fertility Management: https://ifdc.org/integrated-soil-fertility-management-isfm/