

SOMMET INTERNATIONAL DE LA SOCIÉTÉ CIVILE

Du 05 au 07 octobre 2022, Montpellier

Des solutions agroécologiques, pour inspirer la transition







Jnited Nations Convention to Combat Desertification

Cotton production with the use of agroecological farming techniques at Arbaminch, Southern Ethiopia.(IPM-FFS)

Pesticide Action Nexus (PAN Ethiopia)





Project back ground

The cotton crop grown in southern Ethiopia suffers attack by a wide range of pests such as boll worm and sucking pests

- Growers rely on synthetic insecticides to control these pests
- the negative impact of pesticides on human and environmental health underlie growing concern
- The risk posed by chemicals are aggravated by the limited knowledge of cotton farmers on the responsible use of pesticides

Map of the project area



Désertif actions 2322



Strategic inputs

- The main strategic inputs for the organic cotton production project are (i) cotton seed (ii) soil fertility enhancement inputs (FYM,COMPOST, ROTATION)
- (iii) plant protection inputs.(a) manipulating the crop habitat (b) spraying the cotton (crop) foliage with food spray (food supplement) that encourage more natural enemies of pests into farmers' fields. (c) avoid the use of synthetic pesticides which will disrupt and kill natural enemies.



The project process

- Train farmers, extension workers, crop protection experts in IPM at demonstration plots (FFS)
- IPM -FFS sessions were given for 3hrs once a week
- Main topics-pesticide health monitoring, preparation and application of food spray, pest scouting
- Food spray A supplementary spray (brewer's yeast, neem seed extract and maize) applied to cotton farm to attract and conserve natural enemies into the sprayed field-it is applied when the ratio of natural enemy to pests is below 1:2



Results/Gains from the project

These practices are in line with the natural ecological processes which avoids toxic and hazardous agrochemical inputs which can pose threats to biodiversity, environmental health and can also contribute to climate change.



Results/Gains from the project

- Farmers can identify pests and beneficial insects
- Farmers have stopped using pesticide
- organic cotton producer cooperatives established
- Women's cotton spinning association established
- Clean organic cotton with no harm to ethe environment, soil, water and human health is produced.

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Results/Gains from the project

- The very essence of the initiative is the use of natural processes for pest management and soil fertility enhancement techniques.
- It is in line with enhancing, conserving biodiversity. The farmers use food spray which attracted predatory arthropods into the sprayed cotton field so they can feed on pests insects.
- This brings the ecological process of predator to prey interactions and the food chains into the agroecosystem.
- Hence, it is deepened by conserving in-crop biodiversity. Avoiding the use of toxic chemicals also contributes to the in-crop and out-crop biodiversity conservation.



cotton lint, farm and natural pest





Lesson learnt



Gamo zone (formerly called Gamo Gofa Zone) is one of the biodiversity hotspot areas as it is home to Nechsar National park and Lakes Abaya and Chamo. Agriculture intensification with the use of agrochemical has been hugely promoted by the government This has brought to a number of public and environmental health concerns in the area and also posed threats to biodiversity including beneficial insects.

The project has brought changes by supporting more than 3000 farmers in 14 villages to adopt IPM, organic cotton production. On the other hand, one commercial farm changed to organic cotton production with the use of the food spray methods. This is an impacts that the community benefit from by reducing environmental health hazards and biodiversity loss



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Thank you for your attention !

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