



Knowledge hub
-
Collection of best practices

Summary of the best practice

1. Title of the best practice (e.g. name of policy, programme, project, etc.) *

The Project on Enhancing Community Resilience against Drought through Management and Livelihood Diversification in Turkana County

2. Country or countries where the practice is implemented *

Turkana County, Republic of Kenya

3. Please select the **most relevant** Action Track(s) the best practice applies to *

- Action Track 1. Inclusive, equitable, safe, and healthy schools
- Action Track 2. Learning and skills for life, work, and sustainable development
- Action Track 3. Teachers, teaching and the teaching profession
- Action Track 4. Digital learning and transformation
- Action Track 5. Financing of education

4. Implementation lead/partner organization(s) *

State Department of Development of Arid and Semi Arid Lands (ASALs), Ministry of Public Service, Gender, Senior Citizens Affairs & Special Programme

5. Key words (5-15 words): Please add key descriptive words around aims, modalities, target groups etc. *

Technical Cooperation Project, Livelihood diversification and nutrition improvement of Pastoralists communities through the school programs

6. What makes it a best practice? *

Facilitating awareness building and behavior change in vegetable cultivation and consumption of Pastoral communities by transmitting knowledge, skill and dietary habit from pupils to parents through the interactive programs, Vege-Lunch (school lunch) and Agriculture Homework Diary.

Description of the best practice

7. Introduction (350-400 words)

This section should ideally provide the context of, and justification for, the practice and address the following issues:

- i) Which population was affected?
- ii) What was the problem that needed to be addressed?
- iii) Which approach was taken and what objectives were achieved? *

Drought is the most damaging natural hazard destroying lives and livelihoods in Kenya. These impacts are likely to worsen with climate change. However, many of these costs could be avoided or significantly mitigated by reducing people's exposure and vulnerability to risk. In this context, Government of Kenya requested Government of Japan for a technical cooperation project to enhance the resilience of pastoralist communities against drought through sustainable natural resource management and livelihood diversification in Turkana County. The Project was implemented from February 2017 to March 2022 with three components, sustainable natural resources management for improvement of resilience against drought, diversification of the livelihoods of the target communities to enhance drought management, and improvement of capacity of government officers on drought management.

As part of the component, diversification of the livelihoods of the target communities to enhance drought management, activities to promote vegetable cultivation and consumption of Pastoral communities were implemented. The feature of the Project approach was identifying schools as the bases of knowledge and skill dissemination for the Pastoral communities and facilitating learning and behavior change of them through the interactive programs, Agriculture Homework Diary Program and Vege-Lunch Program. Those programs were designed to transmit learning and dietary habit from the pupils to the parents who had no or less experience and practice of vegetable cultivation and consumption.

As the results, pastoral parents gradually learned skills of vegetable cultivation and pupils built habit of vegetable intake, which contributed to the nutrition improvement of pastoral communities. Vegetables used for Vege-Lunch Program were supplied by the neighboring groups, which generated income for them as well.

8. Implementation (350-450 words)

Please describe the implementation modalities or processes, where possible in relation to:

- i) What are the main activities carried out?
- ii) When and where the activities were carried out (including the start date and whether it is ongoing)?
- iii) Who were the key implementation actors and collaborators? (civil society organizations, private sector, foundations, coalitions, networks etc.)?
- iv) What were the resources needed (budget and sources) for the implementation?

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Main activities were 1) Agriculture Homework Diary Program and 2) Vege-Lunch Program.

1) Agriculture Homework Diary Program

Objectives:

The objectives of this program were: a) support pupils of primary schools for understanding plant growth in the agriculture class, and b) introduction of vegetable cultivation, through the homework into the pupils and then to pastoralists parents who do not have any experiences of vegetable cultivation ever. The program was conducted for the 4th grade pupils at the 10 schools.

Procedure:

- Initial training on how to cultivate a crop at school garden by agriculture teacher to pupils in an agriculture class
- In long vacation, the pupils were instructed to practice crop cultivation at their own home. They were requested to keep a record of all the observations of crop growth in the kitchen garden. In this homework activity, the parents were also able to learn how to cultivate vegetables at the same time.
- When school starts, the pupils submit the homework diary.
- It was expected that the parents continue to cultivate crops even the homework is over.

2) Vege-Lunch Program

Objectives:

The objectives of this program were: a) diversifying food through school lunches, b) improving access to vegetables within a community, c) acquiring cash income in the initial phase of the activities, d) creating demands of vegetables in community, e) change in pupils' awareness by vegetable intake in school lunches, and f) nutrition improvement by dissemination of the kitchen gardens. The Program was conducted at 4 demonstration schools for one and a half years.

Procedures

- A vegetable cultivation group was formed to cultivate vegetables using irrigation water from a hand pump well at a group/individual vegetable garden.
- Harvested vegetables were bought by the Project, then provided to a school adjacent to the vegetable garden. The Group can earn cash from the activity.
- Those vegetables are cooked and added into a normal school lunch as a supplemental food to increase nutrition for their health.
- The pupils enjoyed the school lunch with vegetables, which let them have a positive preference on vegetable intake.

Both programs were implemented through the collaboration with schools and Turkana County government with involvement of Pastoral communities. While required budget for Agriculture Homework Diary Program was very low, required budget for Vege-Lunch to purchase vegetables was high, which would be the financial burden of the government.

9. Results – outputs and outcomes (250-350 words)

To the extent possible, please reply to the questions below:

- i) How was the practice identified as transformative? (e.g., impact on policies, impact on management processes, impact on delivery arrangements or education monitoring, impact on teachers, learners and beneficiary communities etc.);
- ii) What were the concrete results achieved with regard to outputs and outcomes?
- iii) Has an assessment of the practice been carried out? If yes, what were the results? *

Monitoring was conducted every 6 months and evaluation was made at the end of the Project. The results found both Agriculture Homework Diary Program and Vege-Lunch Program lead to awareness and behavior change of Pastoral communities in vegetable cultivation and consumption. Details are described as below.

1) Agriculture Homework Diary Program

Most of the schools have performed well in the Agriculture Homework Diary Program. Only a few schools did not implement the program properly due to (i) the influence of COVID19 issues, and (ii) the lack of understandings of teachers.

The program provided the following two major mindset changes of the pupils and the parents.

a) Overcoming prejudice against vegetable cultivation: 88% of the pupils and 87% of the parents answered, "Although I thought the vegetable cultivation was difficult for me before the program, I found it was easy through the program." b) Improving the preference of vegetables
Especially, although 70-100% of the pupils in the 3 schools, expressed negative opinions on vegetable eating, they completely changed opinions after the program. 38% of the parents cultivate the vegetable continuously after the program, and 45% of the parents cultivated several times after the program.

The program also had certain effects on the communities as a whole, 32% parents sold cultivated vegetables to other community members and 20 % parents provided collected vegetables seeds and 11% parents provided harvested vegetables to other community members respectively.

2) Vege-Lunch Programme

All the schools have performed well in the Vege-Lunch program.

The program provided the following two major positive results a) The group members cultivated enough amount of Cowpea constantly at the appropriate delivery timing 22kg/week for 1.5 years). It proved that the pastoralists who have no experience of agriculture could participate in the Vege-Lunch program without any problem. b) the pupils' preference against vegetable eating was remarkably improved by the program, more than 70% of pupils in two schools answered "I started want to eat more vegetables" and more than 90% of pupils answered frequency to request mother "I want to eat vegetables" was increased.

10. Lessons learnt (300 words)

To the extent possible, please reply to the following questions:

- i) What were the key triggers for transformation?
- ii) What worked really well – what facilitated this?
- iii) What did not work – why did it not work? *

The Vege-lunch program and the Agriculture Homework Diary program could be some of the very effective measures for nutrition improvement in Arid and Semi-Arid Lands (ASAL) areas. Because significant impacts were observed on the nutrition improvement of pupils in the for demonstration primary schools when the Vege-lunch program was implemented in the Project.

The significant outcomes are:

1) Acceleration of mindset-change of pupils on vegetable intake.

Due to the Vege-lunch program, the majority of pupils changed their preference positively on vegetables.

2) Action changed on vegetable intake

Due to the Vege-lunch program, the majority of pupils requested mothers to eat vegetables more at home, which could lead the mothers' sustainable activity of vegetable cultivation.

3) Acceleration of taking vegetables at home

The Agriculture Homework Diary program could be one of the very effective measures for spreading ideas and practical ways of nutrition improvement to pupils' families in pastoral areas. According to the Project's observation, pupils' families, especially mothers, learnt how to cultivate cowpeas for the first time in their life through pupils' homework. Then around 80% of the parents continued to cultivate and consume cowpea at home after the homework was over.

The challenge was instability of school lunch operated by the National Government. Although precondition was all the main foodstuff; such as rice, corn-flour, salt, and oils; was duly delivered to the schools before a school's educational term starts by the National Government, when the term started, the main foodstuff was not delivered to the school. Consequently, the school could not provide school lunch for a certain period without main foodstuff. Although the supplemental vegetables were duly prepared by farmers under the Project, those prepared vegetables could not be used for the school lunch until the main foodstuff was delivered at the schools.

11. Conclusions (250 words)

Please describe why may this intervention be considered a “best practice”. What recommendations can be made for those intending to adopt the documented “best practice” or how can it help people working on the same issue(s)? *

Both Agriculture Homework Diary Program and Vege-Lunch Program showed the schools could be the venue to facilitate learning and behavior change of Pastoral communities in vegetable cultivation and consumption.

The Agriculture Homework Diary program is likely one of the effective tools for Competence Based Curriculum (CBC) in primary schools. This program allows pupils to gain actual experiences in plant cultivation and also promotes understanding of actual plants growth. This educational tool is in line with the CBC, which the Government of Kenya is trying to introduce in primary education. This Program bridged between schools and pastoral communities and learning was transmitted from the pupils to the parents without additional dissemination costs. In particular, the effectiveness of this Program in the ASAL region is very high. In recent years, due to the effects of climate change, semi-settlement has become widespread in the ASAL region, and the number of children enrolled in the school increased about 2.5 times in average in the ASAL region and 4.2 times in Turkana County in the last 10 years (The national average is 1.2 times). This means County government is able to access to the Pastoral families who had nomadic life before for the knowledge and skill dissemination through the school programs. Vege-Lunch Program brought positive impact on the awareness of vegetable intake of pupils in addition to the nutrition improvement. This program has potential to induce dietary habit change of their family gradually with a more long-term implementation. The challenge to make this Vege-Lunch Program as a regular program is financial burden. It would be recommended to start with a small scale program at some demonstration schools. Incorporating Vege-Lunch Program with Agriculture Homework Diary Program would bring synergetic effects.

12. Further reading

Please provide a list and URLs of key reference documents for additional information on the “best practice” for those who may be interested in knowing how the results benefited the beneficiary group/s. *

Project Completion Report: <https://openjicareport.jica.go.jp/pdf/12246914.pdf>