***SNNPR, Pastoral Affairs Bureau***

***Lowlands Livelihood Resilience Project (LLRP)***



##### The Success of Arunatugn PAPREG,

#### **Nakriman Kebele, Nyangatom Woreda**

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###### Hawassa

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# Introduction

Knowledge Management (KM) is all about providing the right knowledge for the right people (policy-makers, practitioners, project staffs and pastoral communities) and in the right format in order to improve the livelihood of pastoralists. One of the significant barriers to knowledge sharing and reapplication of experience is the limited culture of information and knowledge documentation and sharing. *(Documentation of Indigenous knowledge,* ***December 2020)***

Although the SNNPR pastoral areas, just like most other pastoral areas and the different projects and government bodies, has ample experiences at each development activities, there is lack of experience of documenting those experiences and sharing with others which hampered people’s ability to know and share.

Hence for this documentation of the best practice, Nakriman Kebele pastoralists’ Participatory Agro-Pastoral Research Extension Group (PAREG) was selected using purposive sampling method.

The Nakriman PAPREG was containing 25 (20 females) agro-pastoralists selected using the purposive sampling method because the participatory research requires interested & devoted persons so that it would have good result.

Continuous theoretical and on the field practical trainings were provided to the selected pastoralists, DAs and government officials to be working with the research group by the Jinka Agricultural Research Center (JARC) in collaboration with the LLRP budget support & facilitation. Each of the selected PAPREG members was provided with 0.28 ha of land. A joint plan of action was prepared. These coordinated and joint activities of the JARC, the LLRP and the stakeholder sectors have brought about very good result where the PAPREG has now organized into a CIG and continued the practice.

Other community members, who observed the PAPREG practices, organized into additional 3 CIGs and continued to implement the practices they learned from the PAPREG demo.

## General Background:

## Nyangatom Woreda

Nyangatom is one of the six pastoral and agro-pastoral woredas in Debub Omo zone of SNNPR. It is situated at an elevation range of 350 to 900 meter above sea level with an average temperatures ranging from 25 to 400C.  The annual rainfall is ranging from 350 to 600mm having a bimodal rainfall.

**Nyangatom** is bordered on the south by [Dasenech](https://en.wikipedia.org/wiki/Kuraz) woreda and Kenya, on the west by South [Sudan](https://en.wikipedia.org/wiki/Sudan) and, on the northwest by SWEPR (Suri woreda), on the north by [Salamago](https://en.wikipedia.org/wiki/Selamago) woreda, and on the east by [Hamer](https://en.wikipedia.org/wiki/Hamer_(woreda)) woreda.

Demographically, based on the 2007 Census conducted by the CSA, this woreda has a total population of 17,640, of whom 8,893 are men and 8,747 women.

The people of Nyangatom woreda are pure pastoralists whose livelihood is mainly based on livestock rearing. Seasonally females have a practice of individually sowing a little portion of land with cereals through hand digging.

These days the Nyangatom society, just like other pastoral societies, has begun to diversify their livelihoods by the technical & financial support of the government and some governmental and non-governmental organizations working in the woreda, LLRP being one of them.

## Nakriman Kebele

Nakriman is one of the 20 rural kebeles in Nyangatom woreda. It borders with Narogoy kebele in the north, Naptokoyt kebele in the south, Black Purpose Agricultural Development in the east & Kenya in the west.

The population of the kebele, according to the woreda Agriculture Office, Disasters Prevention and Preparedness section data of the year, is 2,148 (1,104 female). The kebele is 380-400 meters above sea level. The people of Nakriman kebele, just like the other kebeles in the woreda, are pure pastoralists whose livelihood is mainly based on livestock rearing.

# IMPLEMENTATION OF THE ARUNATUGN PAPREG ACTIVITIES

## Establishment and Selection of the Arunatugn PAPREG

The Arunatugn PAPREG is one of the three PAPREGs which carried out “Cluster based demonstration of improved Sorghum Technologies and Community Based Seed Multiplication at Nakriman Kebele. It was the better of the three although all are successful and handed over to the woreda Agriculture office for scale up.

Arunatugn was purposively selected because it was accessible, had had sufficient communal land to carry out participatory research as well as for the future scale up. Moreover, the members of the Arunatugn PAPREG members were committed to their causes.

By now they are organized into Arunatugn CIG for their former PAPREG activity had been successful and with an expanded land producing better yield with the financial support of LLRP.

Jinka agricultural re­search center established one improved sorghum-producing pastoral and agro-pastoral research and extension group (PAPREG), which contained about 25 direct beneficiar­ies and 25 indirect beneficiaries from Nakriman kebele in collaboration with the Nyangatom woreda Pastoral Affairs and Agriculture Offices. The twenty-five were selected purposively as they were experimental units on which the experiment was conducted whereas the rest twenty-five were randomly selected from a neighbor so as to share experiences with direct beneficiaries. (JARC report, 2023)

*T*he Arunatugn PAPREG was selected for the Best Practice documentation using purposive sampling method because the experiences of the PAPREG was relatively best and the members were positive to take part in the FGD to share the experiences obtained in the due process of implementation of the PAPREG. The selection was carried out by the woreda LLRP office in collaboration with the woreda Pastoral Affairs Office.

Theoretical training was given to officials & experts from relevant stakeholder sectors, DAs from kebeles and the selected pastoral community members on what PAPREG is, how it is implemented and its advantages of production of improved Sorghum Technologies and Community Based Seed Multiplication by Jinka Agricultural Research Center (JARC) specialists in collaboration with the LLRP.

Then practical on-farm skill training was given to agro-pasto­ralists, members of PAPREGs, and development agents of kebeles on improved sorghum production. The skill training was on proper site selection, land preparation, sow­ing/drilling the seed, chemical application, fertilizer rate, irrigation frequency and time of application, and all agro­nomic practices. (JARC report, 2023)

Nakriman kebele, Arumatugn village was selected purposively with the consultation of the woreda agriculture and Pastoral Affairs offices as well as the kebele leadership and community because of the availability of large communal land. Each member of the *Participatory Agro-Pastoral Research Extension Group* was allocated 0.28 hectares of land, totally 7 hectares was cleaned, plowed, disked, harrowed, and ridged at 75 cm using tractors and corrected by labor of the members. (JARC report, 2023)

## Resource Implications

The budget for operational cost for training conducted by the JARC & facilitation was made by LLRP. The input of Melkam variety sorghum, for seed and grain production, was supplied by the JARC. Farm tools like spade, hoe and sickle were provided by the LLRP. The Arunatugn PAPREG site was selected purposively for the Best Practice documentation, as it was the case for PAPREG, based on irrigation facility and suitability of land for irrigation, representativeness, willingness and capability of managing trials, interest to topic, consensus among the members, willingness to share indigenous experience with other members.

## Results of the practice

The participatory research was successful because of the full coordinated participation and cooperation of all the concerned government sectors and the LLRP.

Now the 25 members of the Arunatugn PAPREG have been organized into a CIG and adopting the ‘Melkam’ sorghum variety by merging their research land of PAPREG.

The result of the study revealed that the productivity of improved sorghum (Melkam variety) with its technology packages was better than the local variety with existing agro-pastoralist practice. As to the JARC Research Team Report of ‘Cluster-based Improved Sorghum Production and Commercialization in Nyangatom Woreda of South Omo Zone, Southern Ethiopia the mean grain yield of improved sorghum was 30 quintals per hectare and the mean grain yield of the local variety was 10 quintals per hectare in similar production years in the study area. This implies that improved Melkam variety sorghum had a yield advantage of 200% over the local variety. This greater yield advantage was achieved through the proper use of recommended technology packages such as the use of the improved variety, appropriate fertilizer, chemicals, seed rates, and good management practices. (Research on World Agricultural Economy | Volume 04 | Issue 01 | March 2023)

# Lessons Learnt

***The lesson learnt*** is that the Melkam variety Sorghum is being scaled up and demonstrated in four Kebeles including Nakriman (Nakriman, Aypa, Naptokoyt & Napusmuriya). The 7 ha land area where the Arunatugn PAPREG was using has increased to 30 ha only in Nakriman Kebele for the Arunatugn CIG.

The work culture of the people of Nyangatom, especially those where LLRP is working has been changed for good from only running after livestock to producing different types of produces. Moreover, many of the kebeles, not covered by our project, are demanding the government & LLRP to cover their kebeles & do same to them, too, as to FGD participants during the group discussion. Hence, this practice initiated most of the pastoralists to diversify their means of livelihoods, to start practicing crop production.

Moreover, when pastoralists are properly consulted, trained with essential skills and provided with the necessary inputs, they can be successful in both practical participatory research as well as production of various products, just like other agricultural societies. And they can also diversify their means of livelihoods and adopt any technology that is brought to them easily.

# Conclusion

The pastoralists participatory research of Arunatugn revealed that pastoralists can practice & be successful if they are given proper theoretical and practical trainings backed up by sustained oversight, follow-up and support from the concerned governmental and non-governmental bodies working in the areas.

The successful PAPREG members of Nakriman are now organized into Arunatugn CIG, along with three others, increasing the land for demonstration from 7 to 30 in Nakriman and 108.75 ha in all the four kebeles.

# Recommendations

The PAPREG members of Nakriman, who are now organized into Arunatugn CIG, still need continued follow-up and support from the government sectors concerned: the Job Creation & Enterprise Development sector, the Cooperative Development sector and the Agriculture sector, and the Jinka Agricultural Research Center to further strengthen Cluster based demonstration of improved Sorghum technologies and community based Seed multiplication began with the practical participatory research. And the Pastoral Affairs sector shall coordinate, as usual, the support & follow-up of those sectors until the CIG gets strong enough to stand by itself, as the group requested at their final comment of the FDG, without which the present status of the CIG would not have been realized.

As this is not final study, anybody who is interested to embark on further study may use this document as a stepping stone for further, deeper study on the topic.

# References

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# Participants of Documenting the Best Practice

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