Linking Agriculture to Natural Resource Management and Nutrition (LANN) for behaviour change

The LANN – PLA process takes about a year and a half to implement through a series of 17 monthly meetings interspersed with multiple activities that help in reaffirming what is being learnt at the PLA meetings. The PLA takes the participants through a four-phase bottom up and participatory process of

- Assessment – Taking stock of the problems and understand its immediate and underlying causes
- Decision – Arriving at a consensual decision for doable actions on improving the nutrition status
- Action – Drawing an action plan with duly allocated roles and responsibilities
- Evaluation – Social Auditing by the participants of outcomes and impact of the LANN process
Communities understand undernutrition – “In the LANN meetings I learnt about malnutrition and how it can be measured using height, weight and Mid Upper Arm Circumference of the child. Earlier I used to go to the Anganwadi Centre only to bring the food but now I regularly check with the Anganwadi Didi whether my child is in green, yellow or red zone”, says Neelam Devi, Barjora village, Deoghar district, Jharkhand

Dietary Diversity – The quality of micro nutrient intake is measured by conducting the Dietary diversity scoring. To simplify the concept of food diversity the Indian tricolour flag has been used. The community found it easy to remember and called it the “Tiranga Bhojan” in Jharkhand. Odisha, Budu Patika, from Lanji Village, Bissam Cuttack said “We used to think that healthy food is expensive but after attending the LANN meetings we understand the food needs to have three colours for it to be complete and healthy. Most of us used to drink thin gruel made of Mandya (finger millet) and Joanna (sorghum) in the
morning and set out to the field and drink the same in the afternoon too. Now we make the gruel thicker and nutritious by adding dals (pulses) and ponniporiba (vegetables) to it. It fills the stomach better too”.

**Significant outputs of LANN PLA**

- Instead of cash crops, communities now increasingly grow food for themselves and sell the surplus only.
- After participation in LANN, 75% families have made the challenging transition to ecological farming which in turn has cut costs for them.
- Increased utilization of fallow lands and uplands resulted from farmers’ shift from mono cropping to mixed cropping. This has increased both quantity and the diversity of the yield.
- The link between hygiene and nutrition has been established. 80% of the community members who underwent LANN training today wash their hands with soap before eating food and after defecation.
- Infant care and feeding practices have improved significantly
- The communities have realised the intergenerational effect of malnutrition. 90% are aware of the effect of early marriage on the maternal and child health and nutrition and 75% have taken concerted action against the marriage of adolescent girls.

**Ensuring Dietary Diversification**

- Over 85% families now have their own kitchen gardens where they are growing an array of local and seasonal vegetables.
- The lost tradition of eating uncultivated food collected from pond, canal and forests which are rich in nutritive value has been revived. Kanna Manna sag and Maya sag (leafy vegetables), Kanua (fruit), Arua (tuber), Harra (medicinal fruit), Chauthi (mushroom), red ants and insects are all now back in the daily menu of families leading to an addition of 20 - 30 indigenous foods varieties among the Kond tribes in Rayagada.
- In Odisha, 12 varieties have been incorporated that can be consumed in the dry form.
- In Rajasthan, 500 families have developed Wadis (Orchards) of 40 types of fruit plants for consumption as well as income generation.
- All this has ensured dietary diversification and families are being able to consume at least 5 out of the 10 food groups daily.
I learnt many things at the LANN meetings which transformed my life –

My 2-year-old daughter was terribly underweight and unable to walk. I was told at the LANN meeting to send her to the MTC for treatment. After 15 days at the MTC my wife and daughter attending the nutrition camp. My daughter’s weight is now in the normal grade.

I learnt about the importance of eating different coloured food for good health and nutrition. We were growing only Makka (maize) and Genhu (wheat). At the meeting’s, I learnt about mixed cropping and techniques of growing vegetables throughout the year. I needed money for improving the quality of my land and increase water sources for improved agriculture.

For the first time, I applied for an individual plan under MNREGA and it got sanctioned. I did the Samathalikaran and Medbandhi (Levelling and bunding) for my land. Because of this I have half a Bigha more under cultivation. I also dug a compost pit. I now have a submersible water pump. I have understood the process of applying for schemes and work under the MGNREGS and can now go to the Gram Panchayat on my own and get things done. Today I grow Moong, Tuvar and Chowla (Pulses) and many vegetables. Even in summers I don’t buy vegetables for the family. I have some fruit trees. I also have a toilet in my house.

I use Collected (uncultivated) vegetables like Dimra, Puad, Kekoda and Tindora and eat every day. Now I ensure my daughter gets food from different groups and feed her 4-5 times a day. I check her weight every month.

I used to go to Ahmedabad in search of work 15 days a month. I no longer have to do this, as I earn enough for the family in the village.

Dhula Pitacoma, Sheranagla village, Banswara

Scalability, replicability and sustainability

The LANN process is cost effective as it can reach large populations with a small investment. The Odisha government through its National Rural Livelihood Mission has proposed to implement the LANN PLA in 2200 villages across 5 districts reaching out to about 1,90,000 households and 5,00,000 population. All Anganwadi workers (AWW) have been mandated to attend the LANN meetings and get involved in the process. The AWW, ASHA, Rojgar sevaks, Krishak Mitra and NRLM resource persons can be trained as LANN facilitators. Ideally it should be a joint effort as each one has a different set of skills. The NRLM can be the nodal agency for LANN.

Unit Cost of intervention

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<td>LANN PLA meeting cycle</td>
<td>17 meeting cycles</td>
<td>Cost for 1 village 1033 INR (61 INR per meeting)</td>
<td>1 facilitator 700 INR - per village X 15 villages Training of 1 facilitator 4500 INR (9 days in 3 phases) Manual &amp; Picture cards -500 INR</td>
<td>DRDC- NRLM/ SRLM and Panchayat</td>
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