No One Shall Be Left Behind Initiative

“Promotion of local and indigenous foods with a focus on dietary diversity”

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CURRENT SCENARIO OF MEGHALAYA

Stunting among children: 3rd highest in India

- Meghalaya: 44%
- UP: 46%
- Bihar: 48%

Children under 5 years:
- Underweight: 28.9%
- Wasting: 15.3%

Anaemia among children 6 to 59 months

- Meghalaya: 54.20%
- Assam: 35.70%
- Manipur: 23.90%
- Meghalaya: 48.00%
- Mizoram: 19.30%
- Nagaland: 26.40%
- Sikkim: 55.10%
- Tripura: 48.30%
- India: 58.50%

Anaemic Women (15-49 years)
- 56.2%
Food is the connecting rod of any indigenous community, to their land, culture, language & well being.

Food-based nutrition is the backbone of the “health for all”.

Food based on clean local produce must therefore be the foundation of all other supporting initiatives.
AGROBIODIVERSITY: INTRASPECIFIC DIVERSITY

Hidden diversity within species level-intraspecific diversity of the local varieties.

- Different varieties of the same crop, contain different level of nutrients
- Sometimes the difference can be significant

Example:
Rice varieties vary in protein (5.6 to 14.6 g) per 100 grams

So 200 gram consumption per day can result either in 25% or 65% or RDA
INTRASPECIFIC DIVERSITY: OVERLOOKED ASPECT
Banana or a banana?

Banana varieties showed great differences in carotenoid content ranging

- FROM 58 mg b-carotene/100 g in the whitefleshed banana (Cavendish subgroup)
- TO 5945 mg b-carotene/100 g in the yellow/orange fleshed banana.

Bananas are an ideal food for all people including children because of their sweetness, texture, portion size, familiarity, availability, convenience, versatility, and cost.

FIGURE 2.2 – Recommended nutrient density of a white rice diet improves with each addition of another type of food.
Nutritional gap: Communities don’t consume required amount of food groups

- According to the FAO Guideline on Diet Diversity Score (DDS), an adequate diet is a diet that contains at least 5 Food Groups in a day.
- NESFAS Study of 32 communities showed that on an average, households were consuming only 3-4 food groups in a day.
The villages have a high diversity of crops and wild edibles in their own villages, enough to easily bridge the missing food groups in the diets.

Average number of plant foods from the 32 villages is 202.
### Availability of missing food groups within the community

- Numbers in the table represent the types of plant food available

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>Starchy staples</th>
<th>Leafy vegetables</th>
<th>Other vegetables</th>
<th>Other fruits</th>
<th>Vitamin A rich</th>
<th>pulses</th>
<th>Nuts and seeds</th>
<th>Mushrooms</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meghalaya</td>
<td>East Khasi Hills</td>
<td>23</td>
<td>30</td>
<td>45</td>
<td>56</td>
<td>11</td>
<td>4</td>
<td>5</td>
<td>18</td>
<td>193</td>
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<tr>
<td></td>
<td>West Khasi Hills</td>
<td>42</td>
<td>24</td>
<td>33</td>
<td>64</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>16</td>
<td>197</td>
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<tr>
<td></td>
<td>Ri Bhoi</td>
<td>51</td>
<td>38</td>
<td>69</td>
<td>51</td>
<td>9</td>
<td>6</td>
<td>7</td>
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<td>252</td>
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<td>West Jaintia Hills</td>
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<td>33</td>
<td>47</td>
<td>9</td>
<td>7</td>
<td>4</td>
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<td>175</td>
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<tr>
<td></td>
<td>West Garo Hills</td>
<td>55</td>
<td>29</td>
<td>45</td>
<td>62</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>210</td>
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<tr>
<td>Nagaland</td>
<td>Phek</td>
<td>21</td>
<td>39</td>
<td>38</td>
<td>50</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>23</td>
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<td>Noklak</td>
<td>12</td>
<td>35</td>
<td>31</td>
<td>67</td>
<td>8</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>174</td>
</tr>
</tbody>
</table>
SOURCES OF FOODS IN THE COMMUNITY

- Forest (foraging)
- Shifting cultivation
- Kitchen garden or home garden.
- Orchards (fruit cultivation)
- Paddy field.
- Bun (terrace farming)
- Water bodies (streams, ponds)
- Market
- Seed exchange to secure food and add crop diversity.
INTEGRATED ACTIVITIES WITH ICDS AND SCHOOLS

- Cooking demonstration.
- School garden to supplement mid-day meal.
- Food festivals on mid-day meal.
- Mei-Ramew café /local café (Mother earth café) - To increase consumption of local food.
INTEGRATED ACTIVITIES WITH ICDS AND SCHOOLS

• Seasonal calendars to help cooks prepare menu.
• ABD Walk (Agro biodiversity Walk)
• WASH Campaign
PROMOTION AND AWARENESS OF UNDERUTILIZED SPECIES

By providing evidence of nutritional value of agricultural biodiversity.

Health benefits of nutrients.

- Anti-diabetic
- Anti-oxidant
- Anti-microbial
- Anti-cancerogenic
- Anti-inflammatory
- Solidifies blood
- Prevents high blood pressure
- Prevents kidney stone formation
<table>
<thead>
<tr>
<th>Food</th>
<th>Value</th>
<th>Food Composition (Per 100gms)</th>
<th>Value</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinach</td>
<td>2.95 mg</td>
<td>IRON</td>
<td></td>
<td>Indian pennywort</td>
</tr>
<tr>
<td>Pumpkin</td>
<td>149 µg</td>
<td>β CAROTENE</td>
<td>9980 µg</td>
<td>Red flesh sweet potato</td>
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<tr>
<td>Rice</td>
<td>7.94 mg, 2.81 mg</td>
<td>PROTEIN &amp; FIBRE</td>
<td>10.96 mg, 11.49 mg</td>
<td>Millets</td>
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<tr>
<td>Peanuts</td>
<td>23.65 mg</td>
<td>PROTEIN</td>
<td>23.9 mg, 336 mg</td>
<td>Perilla seeds &amp; Black sesame</td>
</tr>
<tr>
<td>Food</td>
<td>Value</td>
<td>Food Composition (Per 100gms)</td>
<td>Value</td>
<td>Food</td>
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<tr>
<td>-------------------</td>
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<tr>
<td>Almond</td>
<td>2549 g</td>
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<td>Indian chestnut</td>
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<tr>
<td>Mustard leaf</td>
<td>192 µg</td>
<td></td>
<td>324 µg</td>
<td>Chameleon plant</td>
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<td>Milk</td>
<td>118 mg</td>
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<td>1664 mg</td>
<td>Black sesame</td>
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<tr>
<td>Broccoli</td>
<td>2.6 g</td>
<td></td>
<td>3.94 g</td>
<td>Taro stem</td>
</tr>
</tbody>
</table>
Benefits of HOME GARDEN

Income from Market (average of Rs. 20,000 per annum): Sale of Agrobiodiversity (ABD)

Home garden: Integration of animals & food plants

Opportunity Cost: Self consumption of Agrobiodiversity (ABD) leads to savings (average of Rs 73,000 per annum)

Dietary Diversity

Health outcome: Reduced illness leads to savings (average of Rs. 5000 per annum)

Physical well being: Healthy mind & body

Agrobiodiversity: Resilience to climate stress
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Mitela

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