Bio prospecting of the local wild edible plants to address the issue of malnutrition

The Energy and Resources Institute (TERI)
Western Regional Centre
Rationale

- Malnourishment is a serious issue in rural as well as urban areas.
- The key reasons is due to lack of diversity in the diet and proper awareness about it.
- Rural communities have the resources but do not have proper awareness about it regarding its nutritional aspects while the urban dwellers have the capital resources but lack the knowledge.
- These common issue of concern be are complementary to each other.
- Urban people are unaware of the wild edibles and possess lack of confidence to consume it due to scanty information on it.
- Lack of transfer of the traditional knowledge from the elder generation to the young. Traditional knowledge would die off if not documented properly.

How could we bridge the information gap on wild edibles and make it available was the question faced?
Approach: Documentation and scientific validation of the species

- Literature review
- Transect and Quadrat surveys
- Discussions with tribal communities and botanists
- Nutritional analysis

Source:
1. https://www.google.co.in/search?q=review+of+literature
2. https://www.google.co.in/search?q=proximate+analysis
Impacts of the Project

- Documentation of 160+ species of dietary as well as medicinal significance.
Nutritional Analysis of the species

Parameters Assessed

1. Total Fat
2. Proteins
3. Carbohydrates
4. Calorific Value
5. Moisture
6. Ash
7. Crude Fiber
8. Free Sugars
9. Calcium
10. Phosphorous
11. Magnesium
12. Potassium
13. Vitamin A
14. Vitamin C
15. Iron
16. Starch
Wild plant nursery

Conservation of germplasm of around 70 species of wild edible plants
Development of a Digital library on wild edible plants

www.wildedibles.teriin.org

- Nutritional and medicinal information
- Map
- Uses
- Method of cultivation
- Method of preservation
- Toxicity and so on
Digital Library

- Beneficiaries
  - Governmental organizations
  - Rural as well as urban people
  - Scientist and Students
  - Other stakeholders such as NGO’s and so on
## Impacts of Digital Library

<table>
<thead>
<tr>
<th><strong>Tribal communities</strong></th>
<th><strong>Government and Non-Governmental organisations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefited by the project as their traditional knowledge would be conserved in digital repository.</td>
<td>Understanding the significance of the wild would help them address issues such as nutrition more effectively.</td>
</tr>
<tr>
<td></td>
<td>Integration of this concept of wild plant in their initiatives by developing nutritional products, spreading awareness among the tribal communities and so on which shall benefit the tribal communities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Students and Scientists</strong></th>
<th><strong>Urban dwellers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Directly use of the information on wild plant species for research/ study purposes related to nutrition which could of benefit to tribes.</td>
<td>Directly access to the information on wild plant species.</td>
</tr>
<tr>
<td></td>
<td>The information shall increase their confidence on the consumption of the wild plant species and increase the diversity of nutrition in their diet of the urban dwellers as well.</td>
</tr>
</tbody>
</table>